ARTICLES

BOOK REVIEW

C O N T E N T S

Pages

The Utilisation of Education and Skills: Non-Pecuniary Consequences Among Graduates

Shujaat Farooq

In this study, an attempt has been made to estimate the incidences of the job mismatch and its determinants in Pakistan. This study has divided the job mismatch into three categories: qualification-job mismatch, skill mismatch and field of study mismatch. The primary dataset has been used in which employed graduates of the formal sector have been targeted. The paper has also measured the qualification-job mismatch by three approaches, and found that about one-third of the graduates have been facing qualification-job mismatch. Similarly, more than one-fourth of the graduates are mismatched in skills, about half of them are over-skilled and the rest are under-skilled. The analysis also shows that 11.3 percent of the graduates have irrelevant, and 13.8 percent have slightly relevant jobs to their field of study. The analysis reveals that over-qualified and over-skilled graduates are less satisfied, while under-qualified and under-skilled graduates are more satisfied with their current jobs. A similar situation has been observed in case of the field of study mismatch, where both the moderate and complete fields of study matched graduates are more satisfied than the mismatched ones. The job search behaviour is positively associated with the level of education. Over-qualification has a positive impact, while under-qualification has a negative effect to search for another job. A good match between field of study and current job reduces the likelihood of intention to quit the job.

JEL Classification: I23, I24, J21, J24

Keywords: Education and Inequality, Higher Education, Human Capital, Labour Market

1. INTRODUCTION

Research on the issue of job mismatch has mushroomed in the late 1980s, especially in developed countries. Initial studies perceived it as a temporary phenomenon [Freeman (1976)]; however, it was not empirically supported as the incidences of job mismatch range from 10 percent to 40 percent with an average of 25 percent in all the developed countries [Groot and Maassen (2000)]. Both economists and sociologists view the job mismatch phenomenon as a serious efficiency concern with its pertinent socio-

economic costs at individual, firm, and national level, including wage penalties, lower level of job satisfaction, and higher employee turnover rate;[1] lower productivity, extra costs on screening, recruiting and training, lower national welfare and 'bumping down' the labour market process at the national level [Battu, *et al.* (2000); McGuinnes (2006)]. Thus, rapid change in the educational expansionary policies may not yield the desired real economic benefits.

In existing literature, job mismatch phenomenon can be divided in to three categories: qualification-job mismatch, skill-job mismatch, and the mismatch between the field of study and the job. The qualification-job mismatch compares the attained education/qualification (in years) by a worker which is required by his/her current job, while the skill mismatch compares an overall acquired competence with the required competences. The field of study mismatch evaluates as to how much studied field of discipline is relevant to the nature of the job?

No direct study on mismatch between jobs, skills and educational qualifications has been conducted in Pakistan. However, some studies have considered this phenomenon in the context of socio-demographic factors, educational system, and labour market rigidities. First, a variety of barriers including limited job information, institutional, legal, geographical, and discriminatory barriers are causing the job mismatch. Second, limited and skewed female labour participation across the sectors and occupations are still persisting along with a high gender gap, and vulnerable employment [Nazli (2004); Pakistan (2013)]. Third, though the educational opportunities, especially at higher education level expanded a lot,[2] heterogeneity of skills across the regions and institutes also rose with a decline in return to education [Qayyum, *et al.* (2007)]. With outdated curricula, frequent fluctuations in policies and limited government spending, the educational system is following a variety of tiers and heterogeneities. Fourth, in the line of ongoing demographic transition and labour market rigidities, the employment generation has not kept pace with the rising labour force. As a result, job search period has increased. The share of informal sector has also risen coupled with lower productivity and high risk of vulnerability, especially for the youth and the females [Pakistan (2011, 2013)].[3] Moreover, the rising educated unemployment in recent years could indicate the poor choice of educational fields or labour market rigidities [Pakistan (2007)]. Fifth, job mismatch in Pakistan could also be due to the labour polarisation, where various occupational shares in the employment witnessed a change due to technological changes and that led to emergence the demand of some occupations, and a decline in other occupations. Keeping in view the importance of the job mismatch for researchers and policy-makers, this study aims to contribute to the literature on two fronts. As a pioneering study on the national front, it can help planners make better decisions, especially for the young population, which is the country's greatest asset. On the international front, this study can extend the research on the skill mismatch and field-of-study mismatch, which have been widely ignored. This paper has thus, the following two objectives:

---

[1]Dolton and Vignoles (2000), Dolton and Silles (2003), Chevalier and Lindley (2006).

[2]In 1947, there were only two universities which jumped up to 54 in 1999 and 132 at present.

[3]60 percent were considered vulnerable, meaning "at risk of lacking decent work" in 2012-13 [Pakistan (2013)].

(i) To estimate three types of job mismatch: qualification-job mismatch, skills-job mismatch, and field-of-study-job mismatch.

(ii) To evaluate the non-pecuniary consequences of the job mismatch by estimating the impact of three types of job mismatch on the job satisfaction, and turnover intention.

The rest of the study is organised as follows. Section 2 presents a conceptual framework of job mismatch by linking it with the job satisfaction, and turn over intention. A discussion on data sources and methodology is given in Section 3. The results for the incidences of job mismatch and the non-pecuniary consequences of job mismatch are given in Sections 4 and 5, followed by a conclusion and policy considerations summarised in the final section.

2. JOB MISMATCH: PAKISTAN'S CONTEXT

No direct study on job mismatch has been carried out in Pakistan. However, this issue can be perceived from various researches on educated unemployment, under-employment and statistics from various rounds of Labour Force Survey (LFS). The phenomenon can also be captured from some studies conducted over socio-demographic factors, educational system and labour market rigidities.

The bulk of research in Pakistan has been conducted on the economic activity rate, however, issues of job mismatch can be linked both with the micro and macro labour market trends. First, the country is in demographic transition phase with an excessive labour force growth of around 4 percent per annum, while GDP growth is quite inadequate to generate job opportunities for new entrants in the labour market. Second, Pakistan has a vast geographic spread with more concentration of population in the rural areas. However, formal job opportunities are quite limited in majority of the rural areasas well as in urban areas of south Punjab, interior Sindh, Balochsitan, south KP due to lack of industrial base, limited access to services sector, and underprivileged rural non-farm activities. Graduates in these areas are facing not only limited labour market information, but they are also at a disadvantage due to their remote locations.

Third, higher education has expanded rapidly over the last two decades, and gender gap has narrowed over time as the country produced massive numbers of female graduates, but their share in the labour market, especially in the formal sector is still restricted. Females have also been facing cultural and mobility constraints both from supply and demand sides. Thus, limiting them to fewer occupations and industries. On the other hand, rapid educational expansion over a short period has raised the heterogeneity of skills across the regions and across the institutes, as a majority of these new born universities are not capable of delivering the right level of skills as demanded by the labour market.

Wages in Pakistan have remained quite high in the public sector as compared to the corporate sector [Irfan (2008)]. The existence of positive wage differentials and job security in favour of the public sector may give rise to job queues and 'wait' unemployment for these graduates. Being educated people, they might also have high wage reservation that allows them to wait for a decent entry in the labour market. As highlighted by Arif, *et al.* (n.d.) unemployment is thus, seen as being largely as a

mismatch between jobs, and workers in the labour market due to misinformation and availability of jobs.

Despite a rise in the labour force participation, share of formal sector is declining in Pakistan, suggesting that fewer jobs are now available for the graduates. Being these structural imperfections, both on demand and supply side, unemployment rates are the highest among graduates than other educational categories, including illiterate workers since 2003-2004. Over time, their percentage is also rising among those who are below minimum wage. Table 1 shows the wage of unskilled labour to protect his/her basic needs.

Table 1

Percentage of Graduates (Ages 22–59) Who are Below Minimum Wage

Year	Female	Male	Total
2003-2004	18.4	4.4	6.8
2006-2007	30.7	6.4	11.2
2008-2009	29.9	9.9	14.1
2013-2014	30.0	11.3	14.9

Source: Estimated from the micro dataset of LFS 2003-2004, 2006-2007 and 2013-2014.
Note: Minimum wage was Rs 2500 in 2003-2004, Rs 4000 in 2006-2007, Rs 6000 in 2008-2009 and Rs 10,000 in 2013-2014.

3. JOB MISMATCH AND NON-PECUNIARY CONSEQUENCES: A CONCEPTUAL FRAMEWORK

Research on job satisfaction is relatively recent with an unusual amount of interest in it. It is an interesting subject for economists, as it can be used to forecast job turnover and a signal of worker's productivity [Cecilia and Davia (2005)]. Locke defines it as 'a positive emotional condition resulting from the evaluation of one's job experience'. Satisfaction depends on the expectations, needs and ethics [Locke (1976)]. The standard economic theory hypothesises that the job satisfaction depends positively on earnings and negatively on working hours, as well as on a set of other job specific characteristics. Many other social and economic studies have found that higher education is explicitly associated with higher levels of satisfaction with higher wages, promotions and better quality jobs [Ross and Willigen (1997)]. However, education also increases expectation about both wages and job features [Clark and Oswald (1996)]. Disappointment is a source of dissatisfaction, if expectations do not fulfil [Cecilia and Davia (2005)]. Psychological theories reveal that education/skill mismatches are linked with dullness and poor level of job satisfaction [Warr (1987)].

Worker turnover has gained a lot of interest for both the employers and researchers across a wide range of disciplines. In the current decade, this interest has been mushroomed in the U.S. due to financial pressures, and issue of worker performance.

Mobley, *et al.* (1979) have provided theoretical framework to explain this turnover process particularly the voluntary turnover as framed in Figure 1. First, the demographic characteristics which include age, gender, and family constraints pursue a person's decision to remain in or quit a job. Second, job satisfaction influences a cognitive retreat process to turnover intention. Third, the working environment significantly affects the job satisfaction, which, in turn impacts turnover intention and finally, this turnover intention stimulates the voluntary turnover. Few economists have provided another dimension of the turnover by relating it with the qualification-job mismatch [Alba (1993); and Sloane, *et al.* (1999)]. One can also deem that both the tenure in the current job and level of information about the labour market also influence the turnover decisions.

Fig. 1. General Overview of Job Satisfaction and Turnover Process
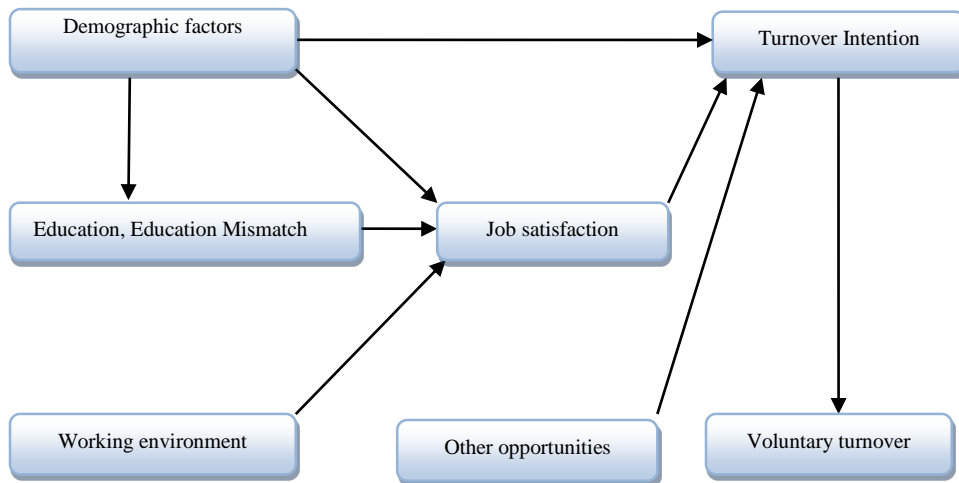
Source: Additions in Lambert, *et al.* (2001) framework.

Last couple of decades brought rapid changes to the labour market structure of the developed and the developing countries, where job opportunities are shifting away from middle-skill jobs toward high-skill and low-skill jobs which is known as a 'job polarisation'. Ignoring the concepts of comparative advantage, relative advantage and factor intensity; the vast advances in the technology have changed the way things are produced, and how people interact with each other, all around the world [Smith (2013)]. Both globalisation and trade have influenced the labour market structures including mobility of workers and turnover behaviour [Wolfgang (2014)].

High turnover which usually occurs in the private sector brings devastation to the organisation with its direct, indirect and social cost. Expenditures incurred on selection, recruitment and training of new employees are direct costs, while costs of learning, reduced morale, pressure on employees, and loss of social capital are indirect costs [Des and Shaw (2001)]. In Pakistan, a major proportion of workers, especially in the private sector are on contractual jobs. Currently, even government and semi-government institutions are adopting the contractual assignments. However, by adopting these criteria, both employees and employers have to face some hiring

and firing costs. These costs should be imparted more especially in the developing countries, where wages are relatively rigid due to lack of information, higher level of unemployment, and absence of collective bargaining policies.

The researchers have paid less attention towards the non-monetary consequences of the job mismatch i.e. job satisfaction and turnover. Earlier, Tsang (1987) supported the notion that the workers with over-qualification tended to have less job satisfaction, resulting in the lower productivity and a higher turnover. Higher rates of turnover amongst over-qualified workers were also reported by Alba (1993) and Sloane, *et al.* (1999), who suggested that the firms hiring such workers were more likely to lose investments in training, recruitment and screening. Hersch (1991) and Battu, *et al.* (1999) found that over-qualified workers and under-qualified women are less satisfied than those who have the required level of formal education.

Jim and Velden (2001) and Green and McIntosh (2002) found that the qualification mismatch had more effect on the job satisfaction than the qualification-job mismatch. Using three welfare measures (enthusiasm, contentment and job satisfaction), Green and McIntosh (2002) also revealed that the over-qualified workers were significantly more depressed, more anxious and less satisfied in their jobs, than those who are not over-qualified. Cabral and Jose (2005) analysed the effect of over-qualification in four dimensions of job satisfaction (job security, wage, type of work and number of working hours), and concluded that over-qualification negatively affects the job satisfaction in all these four cases. Lourdes and Luis (n.d.) suggested that the workers with qualification mismatch have lower probability of satisfaction than those who are accurately match, while the effects of qualification-job on job satisfaction were not statistically significant.

4. DATA DESCRIPTION AND METHODOLOGICAL FRAMEWORK

4.1. Data Description

Due to non-availability of secondary data sources on the targeted information, the present study has used the primary dataset by targeting the employed graduates working in the formal sector, who have 14 and above years of education/qualification (Graduates, Master, MS/MPhil, PhD), named as 'graduate workers'. A primary survey, the Survey of Employed Graduates (SEG) was conducted in 2010 in two major cities of Pakistan, i.e. Islamabad and Rawalpindi to study the job mismatch phenomenon in depth. At a broader level, the targeted universe in the SEG dataset has been divided into three major groups: graduates in the federal government, graduates in the autonomous/semi-autonomous bodies under the federal government and finally graduates in the private sector [see Farooq (2011) for detailed sampling and data collection]. Figure 2 shows the distribution of complete sample of 514 graduates across three major groups according to their relative employment share. All the questionnaires have been conducted by face-to-face interviews.

Fig. 2. Sector-wise Sample Distribution
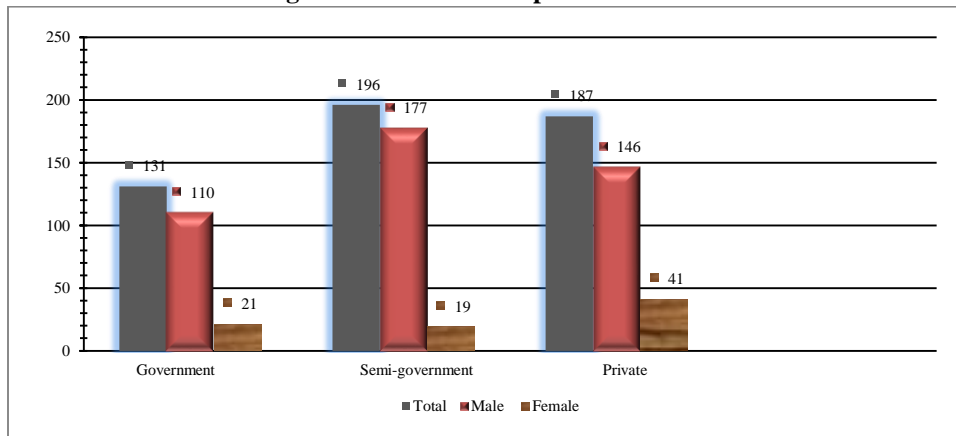
Few limitations can also be noted for the present analysis. First, this analysis is limited only to the formal sector. However, a lot of graduates can be found in informal sector as well. Second, this analysis is limited only to two major cities of Pakistan that cannot reflect the issues of job mismatch for entire country. Third, analysis of the job satisfaction and turnover intention are based on graduate's perception, and it might vary by individual's level of ability and insight about the labour market. Forth, the analysis has considered the job mismatch issue from worker's perspective, it is likely that the employer might consider some other determinants of job-mismatch including qualification inflation and grade drift.[4]

4.2. Methodological Framework for the Estimation of Job Mismatch

As mentioned in the introductory section that the job mismatch has three dimensions; qualification-job mismatch, skills-job mismatch and field of study-job mismatch. Regarding the first dimension, the study has measured qualification-job mismatch by three methods to measure required education/qualification for a particular job; Job Analyst (JA), Worker Self-Assessment (WSA), and Realised Match (RM) method. For the JA method in the SEG dataset, the required education/qualification has been measured by questioning the sampled graduates: 'In your opinion, what level of formal education/qualification (years) and experience (years) is demanded by your employer/organisation to get the job like yours?' For the WSA approach in SEG dataset, graduates were asked: 'In your opinion, how much formal education/qualification (years) and experience (years) is required to perform your current job well?' By comparing the attained education/qualification with required education/qualification, the graduates have been classified into three categories: over-qualified, under-qualified and matched graduates [see Farooq (2011) for detail]. For the third, RM measure, the methodology of Verdugo and Verdugo (1989), and NG (2001) has been followed to measure the required

---

[4]Grade drift is dropped in quality of education. It will be evident if employers are found to be increasing educational requirements for younger workers. The concept of grade drift is related to heterogeneity as individuals with the similar education potentially have significantly different ability levels [McGuiness (2006)].

qualification, on the basis of two variables that are, completed years of schooling and occupations. The mean years of schooling at two-digit occupational classification have been used as a measure of required qualification by assuming that the graduates working in similar occupation require the same level of qualification. The qualification-job mismatch has been estimated by comparing the attained, and required qualification with (+/–) one standard deviation of the mean.[5] Graduates with attained qualification greater and less than one standard deviation were defined as over-qualified and under-qualified graduates, respectively. The middle range; within +/– of one standard deviation comprised on the matched workers.

Unlike existing subjective methodologies as adopted by Green and McIntosh (2002) and Lourdes, *et al.* (2005) this study has followed the specific approach to measure skills-job mismatch, where initially, the level of nine specific attained and required skills have been estimated in the SEG survey on a five-point scale, ranging from 1 'not at all' to 5 'a lot'. These nine skills are; supervisory skills, English writing skills, English speaking skills, numeracy skills, teamwork skills, management skills, computer skills, research skills, and time management skills. Through Principal Component Analysis (PCA) method, the weights have been estimated on attained and required skills on the basis of mean required level of nine skills, by assuming that the workers in same occupations at two-digit occupational coding require the similar types of skills in their jobs. The skill mismatch has been estimated by comparing the attained skill index and the required skill index with (+/–) 0.08 standard deviation (SD) of the mean (0.075 SD for SEG weights).[6] Graduates with the attained skills more or less than required skills by 0.08 standard deviation were defined as over-skilled and under-skilled, respectively. The middle range comprises the skill matched graduates [see Farooq (2011) for detail].

One of the most significant types of mismatch in Pakistan, the field of study mismatch has been estimated in the SEG dataset by subjective approach with the question: 'how much is your current job relevant to your studied field of discipline?' The four possible options were; irrelevant field of study, slightly relevant, moderately relevant and completely relevant field of study.

4.3. The Impact of Job Mismatch on Job Satisfaction

In the SEG 2010 dataset, the job satisfaction has been measured by the following question: 'Considering your qualification and skills, how much you are satisfied with your current job?' with the five answers ranging from 1 'very dissatisfied' to 5 'very satisfied'. To estimate the impact of attained qualification and the three types of job mismatch on job satisfaction, the following equations have been estimated:

$$St_i = \alpha_0 + \alpha_1 E_i + \alpha' X_i + \varepsilon_i \qquad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (1)$$

$$St_i = \beta_0 + \beta_1 D^{oj}_i + \beta_2 D^{uj}_i + \beta' X_i + \varepsilon_i \qquad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (2)$$

$$St_i = \rho_0 + \rho_1 D^{ow}_i + \rho_2 D^{uw}_i + \rho' X_i + \varepsilon_i \qquad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (3)$$

$$St_i = \gamma_0 + \gamma_1 E_i + \gamma_2 D^{os}_i + \gamma_3 D^{us}_i + \gamma' X_i + \varepsilon_i \qquad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (4)$$

[5]+/– One standard deviation was used as the actual mean deviation of the difference of the attained qualification and the required qualification was 0.989, close to one.

[6]Standard deviation has been calculated after comparing the both attained and required skill index.

$$St_i = \delta_0 + \delta_1 E_i + \delta_2 D^l_i + \delta_3 D^m_i + \delta_4 D^h_i + \delta' X_{ki} + \varepsilon_i \qquad \ldots \qquad \ldots \qquad \ldots \qquad (5)$$

Where St_i represents the corresponding level of job satisfaction for graduate i by considering his/her qualification and skills, E_i in Equation 1 represents the level of attained qualification. Equations 2 and 3 measure the impact of qualification-job mismatch on job satisfaction by JA and WSA method, respectively, where two dummy variables have been used for over-qualification and under-qualification. Equation 4 estimates the impact of skill mismatch on job satisfaction with two dummies of over-skill and under-skill, while Equation 5 estimates the impact of field of study, and job mismatch on the job satisfaction, with three dummies representing the weak, moderate and complete relevance. Vector X_i contains other control independent variables related to personal characteristics, human capital and labour market characteristics of graduate i. Since the dependent variable has five outcomes with an order in nature, the Ordered Logistic Regression (OLR) has been applied to estimate the above equations.

4.4. The Impact of Job Mismatch on Turnover Intention

In the SEG dataset, the turnover intention has been estimated from the following question: 'Have you properly applied for any other alternative job during the period?' with 5 options range from 'never search' to very 'fresh search'.[7] To estimate the impact of attained qualification, and the three types of jobs mismatch on turnover intentions, the following equations have been estimated:

$$Sb_i = \alpha_0 + \alpha_1 E_i + \alpha' X_i + \varepsilon_i \qquad \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad (6)$$

$$Sb_i = \beta_0 + \beta_1 E_i + \beta_2 D^{oj}_i + \beta_3 D^{uj}_i \quad + \beta' X_i + \varepsilon_i \qquad \ldots \qquad \ldots \qquad \ldots \qquad (7)$$

$$Sb_i = \rho_0 + \rho_1 E_i + \rho_2 D^{ow}_i + \rho_3 D^{uw}_i + \rho' X_i + \varepsilon_i \ \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad (8)$$

$$Sb_i = \gamma_0 + \gamma_1 E_i + \gamma_2 D^{os}_i + \gamma_3 D^{us}_i + \gamma' X_i + \varepsilon_i \qquad \ldots \qquad \ldots \qquad \ldots \qquad (9)$$

$$Sb_i = \delta_0 + \delta_1 E_i + \delta_2 D^l_i + \delta_3 D^m_i + \delta_4 D^h_i + \delta' X_{ki} + \varepsilon_i \qquad \ldots \qquad \ldots \qquad \ldots \qquad (10)$$

Where Sb_i represents the corresponding level of turnover intention to graduate i, vector X_i contains other control independent variables related to personal characteristics, human capital and labour market characteristics of worker i. In Equation 6, the attained qualification has been used as explanatory variable, while Equations 7 and 8 measure the impact of qualification-job mismatch on turnover intention by the JA and WSA approach, respectively. Equation 9 estimates the impact of skills mismatch on turnover intentions, while Equation 10 estimates the impact of field of study mismatch on turnover intention. Again the dependent variable has five outcomes with an order. Therefore, the OLR has been applied to estimate the above equations. As evident from the empirical studies, job search behaviour strongly depends on the job satisfaction [Khatri and Fern (2001); Sarminah (2006); Rahman, *et al.* (2008)]. However, this study has not used the job satisfaction as a regresser to avoid the issues of both multicollinearity and endogeneity, as various correlates of turnover intention also determine the level of satisfaction i.e. personal characteristics of graduates (age, gender, education), job mismatch and labour

[7]1= Not apply,   2= 1 to 2 year ago apply,   3= 6 to 12 month ago apply,
    4= 2 to 5 month ago,   5= in the last 2 months.

market characteristics. The inclusion of job satisfaction might reduce the predictive power of such correlates.

5. THE INCIDENCES OF JOB MISMATCH

The estimates in Table 2 show that the incidence of qualification-job mismatch varies by the three measures. Both the WSA and JA show the level of over-qualification, and under-qualification in close to each other compared to the RM measure. High statistical relation was found between the WSA and JA, while poor statistical relation was found with the RM of both JA and WSA.[8]   These estimates are consistent with the earlier findings that the RM method reports a lower incidence of over-qualification [Meta-analysis of Groot and Maassen (2000) and McGuinnes (2006)].

Table 2

The Level of Qualification-Job Mismatch by Various Measures (Percentage)

Measures	Matched	Under-qualification	Over-qualification
WSA Method	65.4	9.9	24.7
JA Method	69.5	4.5	26.1
RM Method	63.4	21.6	15.0

The results of over skill mismatch have been reported in Table 3 which shows that more than one-fourth of the graduates are mismatched in skills either in terms of over-skilled or under-skilled. The phenomenon of 'matched graduates' is considerably higher among males (73 percent–74 percent) than among females (67 percent). A lesser proportion of female graduates are under-skilled, while, there are more over-skilled female graduates. It reflects the scenario of relatively more under-utilisation of females' skills in their jobs in Pakistan.

Table 3

The Distribution of Respondents by the Level of Skill Mismatch (Percentage)

	Matched Graduates	Under-skilled	Over-skilled
Female	66.7	11.1	22.2
Male	72.8	13.9	13.4
Total	**71.8**	**13.4**	**14.8**

The results for the field of study mismatch have been reported in Table 4 which shows that 11 percent of the graduates consider that their current jobs are totally irrelevant to their studied field of discipline. Another 14 percent reported that their jobs are slightly relevant, followed by the moderately relevant with 38 percent and completely relevant with 37 percent. Further important information is that the female graduates are facing more field of study mismatch than the male graduates. As one-third of the female graduates are mismatched, either with irrelevant or weak relevant category; however, less than one-fourth of the male graduates are falling in these first two categories (Table 4).

[8] Parametric t-test and spearman rank correlation tests were applied.

Table 4

The Percentage Distribution of the Respondents by Field of Study Mismatch

Level of Mismatch	Female	Male	Total
Irrelevant	14.8	10.6	11.3
Slightly Relevant	18.5	12.9	13.8
Moderately Relevant	33.3	39.3	38.3
Completely Relevant	33.3	37.2	36.6

6. THE NON-PECUNIARY CONSEQUENCES OF JOB MISMATCH

Education leads to a higher level of earnings, faster promotions and decent jobs. Workers with higher education expect attractive and challenging work and sometimes, they also assume the 'comparative income hypotheses' with their peers. Job dissatisfaction might increase when these expectations are not met [Clark and Oswald (1996)]. Such dissatisfaction might limit the efforts of an individual toward his/her vibrant dynamic career. It seems that the ongoing trends of the higher education in Pakistan would increase the gap between demand and supply in the coming years, and it might lead to dissatisfaction, especially among the educated youth. In the following two sub-sections, the implications of job mismatch on job satisfaction and turnover intention have been discussed.

6.1. The Impact of Job Mismatch on Job Satisfaction

Empirical evidences suggest that education has a positive as well as a negative effect on job satisfaction. Education has a positive effect on job satisfaction through 'wage effect' and negative effect occurs due to a higher expectation. However, Equation 1 in Table 5 shows that the satisfaction is negatively associated with the level of education even after controlling the wage effect, thus supporting that graduates in Pakistan have higher wage expectations that are not fulfilled. These results support the existing studies that the higher educated workers enlist a lower level of job satisfaction [Warr (1992); Clark and Oswald (1996)]. Equation 2 and Equation 3 in Table 5 shows the impact of qualification-job mismatch on the job satisfaction. The estimates show that as compared to the matched graduates, satisfaction is negatively associated with over-qualification, and positively associated with under-qualification, which is consistent to earlier studies.[9] The estimates in Equation 4 show that over-skilled graduates are less satisfied, as compared to adequately skilled graduates. One interesting finding is about the impact of field of study, and job mismatch on job satisfaction, where the level of job satisfaction increases with an improvement in the field of study match. Equation 5 shows that the moderate and complete relevant field of study graduates is about 4.5 and 5.3 times more satisfied than the graduates working in the irrelevant field of study. A good match is linked with better wages, and a better understanding of the nature of work, so it will have a higher satisfaction level.

Wages have a strong influence on the job satisfaction. Various macroeconomic and labour market equations emphasise the importance of efficiency wage, which not only boost the morale and job involvement of the workers, but also avert him/her away to

---

[9]Hersch (1991); Battu, *et al.* (2000); Cecilia and Davia (2005) and Lourdes, *et al.* (n.d).

search for another job. Salop and Steven (1976) logically expressed that 'a rising wage profile acts as a self-selection appliance to discourage potential "movers" from searching employment'. Regarding age, the older workers are more satisfied as compared to the younger ones. Tenure has a positive influence on the likelihood of being satisfied with the current job. Finally, the analysis related to the job satisfaction shows the importance of the welfare effects which comprises of the employer's behaviour, colleague's co-operation, motivation, appreciation, and criticism. The results show that the stress due to boss's behaviour reduces the likelihood of job satisfaction, while a colleague's good behaviour, with appreciation and motivation, raise the probability of job satisfaction (Table 5).

Table 5

The Effect of Job Mismatch on Job Satisfaction—Ordered Logit Equation

Regressors	Equation 1 Attain Qualification Odd Ratio	St. Err.	Equation 2 Job Analyst (JA) Odd Ratio	St. Err.	Equation 3 Worker Self-Assessment (WSA) Odd Ratio	St. Err.	Equation 4 Skill Mismatch Odd Ratio	St. Err.	Equation 5 Field of Study Odd Ratio	St. Err.
Over-qualification(yes=1)	-	-	0.215*	0.051	0.110*	0.028	-	-	-	-
Under-qualification(yes=1)	-	-	2.138**	0.930	2.205*	0.687	-	-	-	-
Over-skilled (yes=1)	-	-	-	-	-	-	0.565*	0.150	-	-
Under-skilled (yes=1)	-	-	-	-	-	-	0.934	0.245	-	-
Weak relevance/irrelevant	-	-	-	-	-	-	-	-	1.169	0.397
Moderate relevance/irrelevant	-	-	-	-	-	-	-	-	4.491*	1.420
Complete relevance/irrelevant	-	-	-	-	-	-	-	-	5.344*	1.850
Education (years)	0.766*	0.062	-	-	-	-	0.781*	0.063	0.696*	0.058
Log(wage)	2.608*	0.468	2.090*	0.352	1.881*	0.320	2.502*	0.452	2.393*	0.431
Tenure (years)	1.034**	0.019	1.047*	0.019	1.040*	0.019	1.038*	0.019	1.031**	0.019
Age (years)	1.036*	0.017	1.0419*	0.016	1.039*	0.016	1.039*	0.017	1.029**	0.017
Occupation (manager as ref.)										
Professional	1.072	0.321	1.059	0.318	0.999	0.301	1.095	0.328	1.039	0.314
Associate professional	0.771	0.231	0.845	0.255	0.920	0.279	0.776	0.232	0.832	0.252
Clerk	0.126*	0.048	0.290*	0.116	0.378*	0.151	0.128*	0.049	0.204*	0.080
Elementary	0.132*	0.076	0.398**	0.236	0.461	0.275	0.141*	0.081	0.237*	0.137
Stress due to boss behaviour	0.708**	0.156	0.686**	0.150	0.608*	0.134	0.717**	0.157	0.718	0.159
Colleague cooperate	1.030	0.195	0.912	0.175	0.902	0.175	0.998	0.190	1.053	0.202
Colleague motivate	1.498*	0.304	1.631*	0.335	1.593*	0.330	1.464*	0.298	1.540*	0.315
Colleague not criticise	1.483*	0.270	1.416**	0.261	1.449*	0.268	1.483*	0.271	1.476*	0.271
Log likelihood	−582.982		−564.510		−542.825		−580.663		−563.031	
LR chi square	158.59		195.53		238.90		163.22		198.49	
Pseudo R^2	0.1197		0.1476		0.1804		0.1232		0.1499	
N					514					

* Denote significant at 5 percent, ** Denote significant at 10 percent.
Note: The equations also include sex, marital status, type of organisation, type of job and sector of employment.

6.2. The Impact of Job Mismatch on Job Search Behaviour

Equations in lines 6 to 10, as reported in methodological section, the odd ratios obtained by the ordered logit equation have been reported in Table 6. The second column of Table 6 shows that the human capital accumulation has a strong impact on the likelihood of job search, as an additional year of schooling raises the probability of job search by 1.5 times.

Regarding the qualification-job mismatch, the coefficients by the JA and WSA methods show that over-qualification has a positive impact to search another job with the probability range from 4.3 to 8.8 times. While under-qualification has a negative effect on the quit intention, however, its coefficient is not significant in the JA approach. These results are consistent with earlier studies that a low level job is also to look for alternative opportunities [Alba (1993); Jim and Egbert (2005)]. The results about the impact of skill mismatch on turnover intention are not statistically significant. Another important finding is the impact of the field of study mismatch on turnover intention. The estimates show that an improvement in the field of study, and job mismatch reduce the turnover intention, as the moderate and complete matched graduates have less likely to turnover intention by 0.83 to 0.89 times, as compared to those who are in mismatched jobs.

The negative impact of age and wages on job search behaviour is consistent with earlier studies, that a rising wage profile acts as a self-appliance to discourage workers to search for other jobs [Jim and Egbert (2005)]. Graduates in lower occupational titles (clerical support workers and elementary workers) have more turnover intentions, when compared with those who are in managerial jobs. The cooperation of colleagues also reduces the probability of turnover intention (Table 6).

7. CONCLUSIONS AND POLICY IMPLICATIONS

The main focus of this study is to estimate three types of job mismatch and analysing the non-pecuniary consequences of the job mismatch. The present study has found that the choice of measurement method has a significant effect on the incidences on qualification-job mismatch. Overall 31–37 percent of the graduates are facing the qualification-job mismatch, either falling in over-qualification or under-qualification category. Similarly, more than one-fourth of the graduates are mismatched in skill, either in terms of being over-skilled or under-skilled. The phenomenon of 'matched graduates' is considerably higher among males than females. An important information is that the female graduates are facing more field of study mismatch than the male graduates, as one-third of the female graduates are mismatched, either with the irrelevant or weak relevant category. However, less than one-fourth of the male graduates are falling in these first two categories.

This study has also examined two non-monetary consequences of the job mismatch: job satisfaction and turnover intention. Regarding job satisfaction, the over-qualified and over-skilled graduates are less satisfied, while the under-qualified and under-skilled graduates are more satisfied with their current jobs. A similar situation has been observed over the field of study mismatch, where both the moderate and complete fields of study matched graduates are more satisfied than the mismatched ones.

Table 6

The Effect of Job Mismatch on Turnover Intention—Ordered Logit Equation

Regressors	Equation 6 Attain Qualification		Equation 7 JA		Equation 8 WSA		Equation 9 Skill Mismatch		Equation 10 Field of Study	
	Odd Ratio	St. Err.	Odd Ratio	St. Err.	Odd Ratio	St. Err.	Odd Ratio	St. Err.	Odd Ratio	St. Err.
Over-qualification(yes=1)	-	-	4.275*	1.049	8.762*	2.298	-	-	-	-
Under-qualification(yes=1)	-	-	0.923	0.395	0.551*	0.169	-	-	-	-
Over-skill (yes=1)	-	-	-	-	-	-	0.866	0.215	-	-
Under-skill (yes=1)	-	-	-	-	-	-	0.879	0.218	-	-
Weak relevance/Irrelevant	-	-	-	-	-	-	-	-	1.030	0.344
Moderate relevance/Irrelevant	-	-	-	-	-	-	-	-	0.174*	0.054
Complete relevance/Irrelevant	-	-	-	-	-	-	-	-	0.115*	0.039
Education (years)	1.509*	0.114	1.263*	0.105	1.176**	0.099	1.515*	0.116	1.800*	0.148
Age	0.966*	0.016	0.965*	0.016	0.969**	0.017	0.966*	0.016	0.946*	0.016
Log(wage)	0.631*	0.098	0.762**	0.121	0.880	0.145	0.628*	0.098	0.720*	0.113
Occupation (manager as ref.)										
Professional	0.805	0.226	0.785	0.222	0.807	0.230	0.805	0.226	0.828	0.238
Associate professional	1.226	0.346	1.107	0.316	0.973	0.279	1.234	0.349	1.116	0.324
Clerk	7.582*	2.809	3.350*	1.335	2.264*	0.905	7.687*	2.855	3.964*	1.514
Elementary	8.636*	4.763	3.075*	1.761	2.575**	1.482	9.005*	5.004	3.659*	2.132
Stress due to boss (yes=1)	1.040	0.217	0.999	0.210	1.143	0.242	1.049	0.219	0.978	0.206
Colleague cooperate (yes=1)	0.656*	0.121	0.702**	0.131	0.689*	0.129	0.646*	0.120	0.630*	0.118
Colleague motivate (yes=1)	0.959	0.188	0.942	0.187	0.987	0.197	0.959	0.188	1.012	0.201
Colleague not criticise (yes=1)	0.797	0.138	0.851	0.148	0.813	0.142	0.800	0.139	0.792	0.138
Log likelihood	-708.782		-690.840		-668.914		-708.512		-672.189	
LR chi square	171.22		207.11		250.96		171.77		244.41	
Pseudo R ^{2}	0.1078		0.1304		0.1580		0.1081		0.1538	
N					514					

* Denote significant at 5 percent. ** Denote significant at 10 percent.

Note: the equations also include sex, marital status, type of organisation, type of job and sector of employment.

The satisfaction is negatively associated with the level of education and positively associated with wages and tenure in the current job. The job search behaviour is positively associated with the level of education. The over-qualification has a positive impact, while the under-qualification has a negative effect to search for another job. An important finding is that, a good match between fields of study and current job reduces the likelihood of quit intention.

In the present analysis, the incidence of over-qualification does not mean that the level of education should be lowered: it rather suggests the need for better quality of education and skills. Findings of this study lead to the following policy implications and recommendations, primarily in two areas: reforms in human resource development and labour market institutions. Some policy implications have been drawn directly from analysis, while some implications can be considered secondarily to avoid the issues of job mismatch in Pakistan.

- A limited analysis is carried out in the present study due to lack of information in the national dataset. There is a need to improve the LFS questionnaire for

skill assessment, job satisfaction, turnover intention and labour market opportunities. A module about the history of employment may also be made part of the LFS.

- Some tracer type studies would be helpful to understand the employment patterns, and skills demanded by the various sectors and occupations. It would help not only to understand the nature of job mismatch, but also guide the planners and enrolled youth about the labour market opportunities and type of skills needed.

- The current analysis reveals that females are facing more issues of job mismatch. Their rapid enrolment with the limited labour participation addresses the socio-cultural constraints and labour market discriminations. There is a need for policies and programmes which ensure their entrance in the emerging occupations, along with providing them entrepreneurial opportunities.

- The phenomenon of job mismatch suggests the close coordination among the various demand and supply side stakeholders of the labour market for better understanding of issues in order to formulate right policies.

- The estimates of job mismatch, especially the field of study mismatch highlights the labour market rigidities and imperfections. There is a need to design and promote policies which would ensure the six dimensions of decent work; opportunities of work, conditions of freedom, productive work, equity in work, security at work, and lastly dignity at work. The 'merit' norms and equal job opportunities should be ensured for the various segments of the society.

- Additional research is needed to estimate the productivity losses, hiring costs due to job mismatch, employer perspective on job mismatch and incidences of the same due to technological developments.

REFERENCES

Alba-Ramirez, A. (1993) Mismatches in Spanish Labour Market: Over-education? *The Journal of Human Resources* 27:2, 259–278.

Arif, G. M., M. F. Khan Kiani, and Khalid H. Sheikh (n.d.) Labour Market Dynamics in Pakistan: Evidence from the Longitudinal Data.

Battu, H., C. Belfield, and P. J. Sloane (1999) Over Education among Graduates: A Cohort View. *Education Economics* 7, 21–38.

Battu, H., C. Belfield, and P. J. Sloane (2000) How Well Can We Measure Graduate Over education and Its Effects? *National Institute Economic Review* 171, 82–93.

Cabral, V. and A. Jose (2005) Skill Mismatches and Job Satisfaction. *Economics Letters* 89:1, 39–47.

Cecilia, A. and M. A. Davia (2005) Education, Wages, and Job Satisfaction. Epunet 2005 Conference.

Chevalier, A. and J. Lindley (2006) Over-education and the Skills of UK Graduates. (IZA Discussion Paper No. 2447).

Clark, A. E. and A. J. Oswald (1996) Satisfaction and Comparison Income. *Journal of Public Economics* 61, 359–381.

Dess, G. D. and J. D. Shaw (2001) Voluntary Turnover, Social Capital, and Organisational Performance. *Academy of Management Review* 26:3, 446–56.

Dolton, P. and A. Vignoles (2000) The Incidence and Effects of Over Education in the UK Graduate Labour Market. *Economics of Education Review*19:2, 179–198.

Dolton, P. and M. Siles (2003) The Determinants and Consequences of Over Education. In Buchel, de Grip and Mertens (eds) *Over Education in Europe* (pp. 189–217). Cheltenham: Edward Elgar.

Farooq, Shujaat (2011) The Utilisation of Education and Skills: Incidence and Determinants among Pakistani Graduates. *The Pakistan Development Review* 50:3, 219–244.

Freeman, R. (1976) *The Overeducated American.* New York: Academic Press.

Green, F. and S. McIntosh (2002) Is there a Genuine Underutilisation of Skills Amongst the Overqualified? London School of Economics.

Groot, W. and van den B. Maasen (2000) Overeducation in the Labour Market: A Meta-Analysis. *Economics of Education Review* 19, 149–158.

Hersch, Joni (1991) Education Match and Job Match. *The Review of Economics and Statistics* 73:1, 140–144.

Jim, A., ROA and de W. Egbert (2005) What do Educational Mismatches Tell us about Skill Mismatches? A Cross Country Analysis. Paper for the Seminar: European Labour Market of Higher Education Graduates: Analysis of the CHEERS Project Segovia.

Jim, A. and V. D. Velden (2001) Educational Mismatches versus Skill Mismatches: Effects on Wage, Job Satisfaction, and On-the-Job Search. *Oxford Economics Paper* 53:3, 434–452.

Khatri, N. and C. T. Fern (2001) Explaining Employee Turnover in an Asian Context. *Human Resource Management Journal* 11:1, 54–74.

Lambert, Eric G., L. H. Nancy, and M. B. Shannon (2001) The Impact of Job Satisfaction on Turnover Intent: A Test of a Structural Measurement Model Using a National Sample of Workers. *The Social Science Journal* 38, 233–250.

Locke, E. A. (1976) The Nature and Causes of Job Satisfaction. In M. D. Dunnette (ed.) *Handbook of Industrial and Organisational Psychology* (Chicago, Rand-McNally).

Lourdes, Badillo-Amador, A. Garcia-Sanchez, and L. E. Villa (2005) Mismatches in the Spanish Labour Market: Education vs. Competences Match. *International Advances in Economic Research* 11, 93–109.

Lourdes, Badillo-Amador, and L. E. Vila-Luis (n.d.) Education Mismatch and Qualification Mismatch: Monetary and Non-Monetary Consequences for Workers.

McGuinness, S. (2006) Over Education in the Labour Market. *Journal of Economic Surveys* 20:3, 387–418.

Mobley, W., R. Griffeth, H. Hand, and B. Meglino (1979) Review and Conceptual Analysis of the Employee Turnover Process. *Psychological Bulletin* 86, 493–522.

Nazli, Hina (2004) The Effects of Education, Experience and Occupation on Earnings: Evidence from Pakistan. *The Lahore Journal of Economics* 9, 1–30.

Ng, Y. C. (2001) Overeducation and Undereducation and Their Effect on Earnings: Evidence from Hong Kong, 1986-1996. *Pacific Economic Review* 6:3, 401–418.

Pakistan, Government of (2013)   *Pakistan Labour Force Survey, 2010.* Islamabad: Federal Bureau of Statistics.

Pakistan, Government of (2007) Employment Trends Youth. Ministry of Labour, Manpower and Overseas Pakistanis, Labour Market Information and Analysis Unit, Islamabad.

Pakistan, Government of (2011) Pakistan Employment Trends. Ministry of Labour, Manpower and Overseas Pakistanis, Labour Market Information and Analysis Unit, Islamabad.

Qayyum, *et al.* (2007) Growth Diagnostics in Pakistan. Pakistan Institute of Development Economics, Islamabad. (PIDE Working Paper 2006-07).

Rahman, A. S., M. Naqvi, and M. I. Ramay (2008) Measuring Turnover Intention: A Study of IT Professionals in Pakistan. *International Review of Business Research Papers* 4:3, 45–55.

Ross, E. and Van M. Willigen (1997) Education and the Subjective Quality of Life. *Journal of Health and Social Behaviour* 38, 275–297.

Salop, J. and S. Steven (1976) Self-Selection and Turnover in the Labour Market. *Quarterly Journal of Economics* 90:4, 619–28.

Sarminah, S. (2006) The Contribution of Demographic Variables: Job Characteristics and Job Satisfaction on Turnover Intentions. *Journal of International Management Studies* 1:1.

Sloane, P. J., H. Battu, and P. T. Seaman (1999) Overeducation, Undereducation and the British Labour Force. *Applied Economics* 31:11, 1437–1453.

Smith, C. L. (2013) The Dynamics of Labour Market Polarization. Finance and Economics Discussion Series (FEDS).

Tsang, M. C. (1987) The Impact of Underutilisation of Education and Productivity: A Case Study of the U.S. Bell Companies. *Economics of Education Review* 6:2, 239–254.

Verdugo, R. R. and N. T. Verdugo (1989) The Impact of Surplus Schooling on Earnings: Some Additional Findings. *Journal of Human Resources* 24:4, 629–643.

Warr, P. (1992) Age and Occupational Well-being. *Psychology and Aging* 7, 37–45.

Warr, P. (1987) *Work, Unemployment, and Mental Health.* Oxford: Oxford University Press.

Corrigendum

The affiliation of the author for the paper titled, "Impact of Macroeconomic Variables on Capital Structure Choice: A Case Study of Textile Industry of Pakistan (Vol. 55, Issue No. 3) may be read as:

Zia-ur-Rehman, Assistant Professor, Department of Management Science, University of Haripur, PhD Scholar, Bahria University, Islamabad.

Land Use Conflicts in the Developing Countries: Proximate Driving Forces and Preventive Measures

HABIBULLAH MAGSI, ANDRE TORRE, YANSUI LIU, and M. JAVED SHEIKH

This research aims to analyse land use conflicts mainly caused by infrastructural development projects in the developing countries. For this purpose, qualitative data is gathered which is frequently published on land use conflicts against the development related infrastructure projects in Brazil, China, India, Indonesia and Pakistan. It identifies and defines land use conflicts, their dynamic features and contestations. The results reveal as to how the conflicts have been germinated by the property and human right violators? Further, it also focuses on the governance roles and responsibilities, the institutional inconsistency towards justice, and the local population's mistrust in the respective case study areas. The analysis concludes with an overview of the root causes and consequences of land use conflicts, by indicating as to how land use decisions for infrastructural settings have changed rural economy, and induced local population to displace and oppose the projects. Finally, the study proposes some preventive measures to manage such conflicts.

JEL Classification: D74, O16, H54
Keywords: Conflict, Proximity Relations, Infrastructure, Developing Countries

1. INTRODUCTION

Land use conflicts are a widespread phenomenon, and can occur at any time or place between different stakeholders, mainly for different land expectations [Torre, *et al.* (2014); Wehrmann (2008)]. During the twentieth century, many changes have occurred in agricultural land across the globe due mainly to constant pressure of population growth and urban sprawl. Together these factors have underlined the demand of more infrastructural development projects, especially in the developing countries [Wang, *et al.* (2015); Singhal (2009); Marshall and Shortle (2005)]. These major changes can appear as strong incompatibilities between the development projects and wills or expectations of the local populations. Thus, initiation of large construction projects can make local inhabitants

frustrated and angry due to indicators like partial advice, absence of counselling and opposition to their own projects [Magsi and Torre (2014); Awakul and Ogunlana (2002)]. Such frustrations often lead to the resistance against projects, where these types of issues are mostly transformed into conflicts due to lack of participatory approach.

Theoretically, the land use conflicts are the result of lack of social justice and recognised rights [Ostrom (1990)], which may bring about important problems in front of researchers and planners to encourage for consideration of new approaches, and may increase the performance of conflict actors to unite and protest for their rights [Hirschman (1970)]. Specifically, in the rural areas, such conflicts are sparked more when owners are forcibly dispossessed from natural resources, i.e., land, water or forests [Tilt, *et al.* (2009); Ostrom and Nagendra (2006)]. According to the welfare economic aspects of land use conflicts (social welfare theory), "the decisions of superposition of lands must not depend upon from one use to another, but must be limited on its efficient distribution with respect to the economic activities" [Cheshire and Vermeulen (2009)].

Many researchers have tried to explore the land use conflicts and their resolution measures [Liu, *et al.* (2014); Torre, *et al.* (2014); Mann and Jeanneaux (2009); Deininger and Castagnini (2006); Swanström and Weissmann (2005); Campbell, *et al.* (2000); Owen, *et al.* (2000) and Burton (1993)], but there are few references to the use of methodologies providing support for their prevention. Through this research, it is aimed to identify conflicting events in different pieces of land, and to suggest the preventive measures. The most repeated examples are overviewed here with regard to land use conflicts from developing countries (Pakistan, Indonesia, India, China and Brazil) in order to explore land use related conflicts, and highlight (i) the affectees of different types of land use decisions; and (ii) the extent to which these conflicts have an adverse impact on life, livelihood, and land productivity. In order to explore incidence and impact of land use conflict, the following hypothesis is formulated which can be explored qualitatively: the lack of inputs and involvement of the regional population in the construction of a development project leads to disagreements and conflicts.

This article attempts to provide a qualitative estimation that can help to estimate the regional development losses due to land issues. The article is structured as follows. The first section provides the approaches towards data collection for descriptive evidences on the land use issues in the selected developing countries. There is then a discussion on the land governance and land use conflict preventive measures in detail. Final section concludes with a guiding principle for sustainable land use and economic development in the developing countries in the future.

2. METHODOLOGICAL CONSIDERATIONS

To deal with the issues and to explore the land use conflict figures and evidences, data collection was carried through various secondary sources. In order to extract a true picture of the tension and conflict situations with their causes and consequences, the information was gathered through national and international dailies of the respective countries.[1] In order to understand public voices on pre, during, and post conflict

---

[1]Following newspapers were selected from the respective countries: from Pakistan *DAWN International* and *The NEWS*; from Indonesia *The Jakarta Post*; from India *Times of India* and *The Indian Express*; from China *The Epoch Times* and *China Digital Times*; and from Brazil *Survival International* and *The Rio Times*.

situations, the news articles were downloaded from the web pages of the selected dailies, in which the news regarding selected case studies were published. Those articles were searched, while using specific keywords (local population, conflict, protest, compensation, rehabilitation, policy, etc.) followed by the names of the projects.

As a matter of fact, information on the conflicts of land use is very sensitive, therefore, during analysis of the daily press, care has been taken to avoid unreliable information, to ensure the originality and reliability of facts [McCarthy, *et al.* (1996)]. Moreover, information was also collected through published material from various public and private, national and international organisations, as well as from websites and internet pages.

3. DESCRIPTIVE EVIDENCES

It is beyond doubt that the growing population demands more housing, public utilities, roads, parks, schools, hospitals, sports arenas, airports, railway stations, prisons, crematoriums, cemeteries, offices, and retail spaces for manufactured products and other infrastructural projects. These are certainly key issues to development projects, but for some reason partly opposed by the local people, and labelled as undesired or semi-desired infrastructure projects [Torre, *et al.* (2015)]. Hence, authors decided to highlight the most recent incidences of the conflicts over land used for infrastructural settings in the developing countries, e.g. Pakistan, Indonesia, India, China and Brazil.

3.1. Infrastructural Settings

Here are the examples of the conflicts linked with infrastructural settings, and their impact on the existence of millions of local inhabitants in the selected developing countries like Pakistan, China, India, Indonesia and Brazil.

In Pakistan, large numbers of displacements have been recognised due to blemished dam projects, like the *Chotiari* water reservoir constructed by the Water and Power Development Authority (WAPDA) with the help of international donor agencies i.e. the World Bank and Saudi fund for development. The main aim of this project was to irrigate around 1.2 million acres in various districts of Sindh province. This has created some unwanted results (see Box 1).

Box 1: Chotiari Water Reservoir in Pakistan

The Chotiari water reservoir lies on the western wings of *Nara* desert in the district of *Sanghar*. The reservoir occupies an area of about 18,000 hectares and has a water storage capacity of 0.75 million acre feet. The project was approved in 1992 (finally 1994) and supposed to be completed by December 1997, with a cost of Rs 1.5 billion (approximately US $ 26.3 million). Due to ineffectual planning and corruption the project was delayed by five years up-to December 2002, with a total cost of Rs 6 billion, which is approximately US $ 105 million. Experts from the Chotiari area opined that its actual output was far below from which it was planned, where its financial, social, and environmental costs were much greater than expected. According to the community representatives and their organisations, a total of 993 families were directly affected by the construction of this reservoir. They had been uprooted from their homes and in most cases were left without any resettlement and/or compensation. Conflicts over the construction of big dams have grown into forceful policy debates in numerous countries around the world, but this case might be considered as one of the planned social and environmental tragedies.

Sources: Authors extraction from *DAWN International* 12-11-2009; *The NEWS* 14-01-2007; UNEP 14 and 1506-2004.

It is observed that mostly in the developing countries, indigenous people have not been consulted or treated as prime stakeholders, while taking some decisions on development projects, which would   affect them directly or indirectly [Magsi and Torre (2013); Scudder (2005); UNEP (2004); Awakul and Ogunlana (2002)]. Afterwards, when the people see any initiation of large construction projects, they often become frustrated and angry about partial advice and counsel. This disappointment often leads to the project opposition and violence, but it rarely leads to a change in the public authorities' behaviours. Instead, they carry on thinking of launching new projects, disregarding the oppositions and the damages caused by the previous initiatives. Thus, it becomes vital to examine the position of the factors leading to the conflicts. Especially, those indicators which encountered on the development projects in order to understand as to what interested groups and the project participants could learn from the preceding experiences This would enable the project initiators to identify the reason of lack of success of projects.

Land use conflicts are common in Indonesia as well. During 2002, the Indonesian government issued an official regulation, allowing the state to take over land to be used for construction of public facilities, even if no agreement had been reached with the farmers residing on their lands. This rule had raised public concerns and protests throughout Indonesia. Many of farm-lands were lost due to infrastructure projects (see Box 2), which were fertile agricultural lands, as well as being of tremendous value for marine biodiversity and ecology [LRAN (2007)]. Such land loss has a long term implications for the economic, social and food security of local communities, who once and for all get deprived of, what is often, their only source of livelihood.

Box 2: Land Use Conflicts over Airport Construction in Indonesia

The *Lombok* International Airport is built over farm lands of local indigenous people, which is located in *Tanak Awu* village. This mega project turned a cause of conflict between the government and local farmers, due to dissatisfying policy adopted by the government towards proper compensation and rehabilitation. "It is not in the place that the local government of west *Nusa Tenggara*, and the linked parties who have interest to build the airport on the fertile land, which is the only resource for peasant in central Lombok to make living"; expressed by Henry Saragih to *The Jakarta Post* (September 09, 2006). Henry Saragih is the secretary general of the Indonesian federation of peasant unions (FSPI), had expressed above outrage at the airport construction site plan in Lombok, after unprovoked attack by the police on peasant's crowd—included women and children—gathered to record their concerns against violation of their rights.

Source: Authors' extraction from *Land Research Action Network* 03-05-2007; *The Jakarta Post* 09-19-2006.

On the other side, in order to achieve rapid economic growth, India has also been investing in industrial projects, such as dams, roads, mines, power plants, where some of the projects, particularly dams have generated serious controversies (see Box 3), as they have tended to be the major sources of displacement-related conflicts [UNEP (2004)]. Therefore, about 21000 families were disturbed and ousted when the *Pong* dam was constructed nearly 25 years ago, and still have not received the benefits of any proper rehabilitation measures. Moreover, the development has affected about 21.3 million persons, including; displaced by the dams (16.4 million), mines (2.55 million), industrial development (1.25 million), wildlife sanctuaries, and national parks (0.6 million) [Lama (2008)].

Box 3: Development Induces Displacement in India

India's current social and economic trembling issue is *Yamuna* expressway, which is a 165.5 km long road project in Utter Pradesh (UP). Actually, this is the dream project of the UP's government. This project aimed to connect New Delhi to Agra alongside of the Yamuna river, but being a more populous state it has not only caused disturbances among local population, but has also negatively affected the country's economy. Around 12000-14000 farmers have protested and likely blocked Delhi road against the forceful acquisition, and unjustified compensation of their land for the project. This also seemed more intense and complex land use conflict of the year 2014, up-to now almost a dozen of causalities have been taken place. Number of causalities could increase if the resolution measures have not been taken into account.

Source: Authors' extraction from *Times of India* 22-11-2014*; Mahaprashasta* 2012.

In China, due to the rapid industrialisation and population growth, the land base for agricultural growth has been shrinking [Wang, *et al.* (2015)]. In fact, China is well known for its efficient infrastructural and urbanisation projects, but violent conflicts have also been reported (see Box 4), which might be due to compensation disagreements [Rooij (2007)]. According to Robertson (2010), "the expropriation of land in China is a polemic social issue, where so many houses have been demolished forcibly by using modern tactics like switching off the power or water to whole blocks of houses, and sending thugs to harass and intimidate residents".

Box 4: Land Use Conflicts in China

In China official statistics show that more than 50,000 cases of land use dispute took place in 224 cities, and counties across the country from 2003 to March 2008. In 2010 more than 30,000 villagers in the eastern China blocked a highway and clashed with police while protesting against the land compensation deals. Protestors accused local officials of arranging a deal in which villagers were paid far less than the market value for their land. The protesters were gathered against government land seizure in *Zhenjiang* for infrastructural development projects. Moreover, the expropriation of land in China has become one of the most polemical social issues. Therefore, "The government should solve previous problems before making more laws", said *Li Huifang*, a petitioner from *Shanghai*. "How many people were imprisoned and tortured trying to protect their houses and lands? They should be redressed", he added while expressing his grievances to *The Epoch Times* (October 28, 2010).

Source: Authors extraction from *The Epoch Times* 28-10-2010; *CDT* 26-07-2009.

A significant body of research has shown that there are no geographical limitations to the conflict; it can occur in any part of the world. Semi-developed or emerging countries like Brazil are also disturbed due to land use conflicts [Vainer (2007)], for example a conflict has started in early 2010, when mining companies started working on the northern states of the country (see Box 5). According to Sharma (2002):

In these regions the concentration of land ownership is high, and some "troublemakers"—community or union—dispute their rights to maintain thousands of hectares of land uncultivated, or stripped of all forest for mining and cattle pasture (beef for export), while millions of Brazilians are willing to work on land, who remain landless and survive in near virtual starvation in the rural poverty or urban slums.

Box 5:Land Use Conflicts Created by Miners in Brazil

In 2010, *Yanomami* and *Yekuana* Indians of *Roraima* state of northern Brazil held a protest to denounce the invasion of Yanomami land by international mining companies and national cattle ranchers. They have demanded from the authorities to remove them immediately, and also demonstrated that more than 1000 gold-miners are working on their land and polluting the river and forest with mercury, where cattle ranchers are invading and deforesting the eastern fringes of their land. These Yanomami indigenous people are living in the Amazon rainforest, where the forest is their only source of livelihood survival.
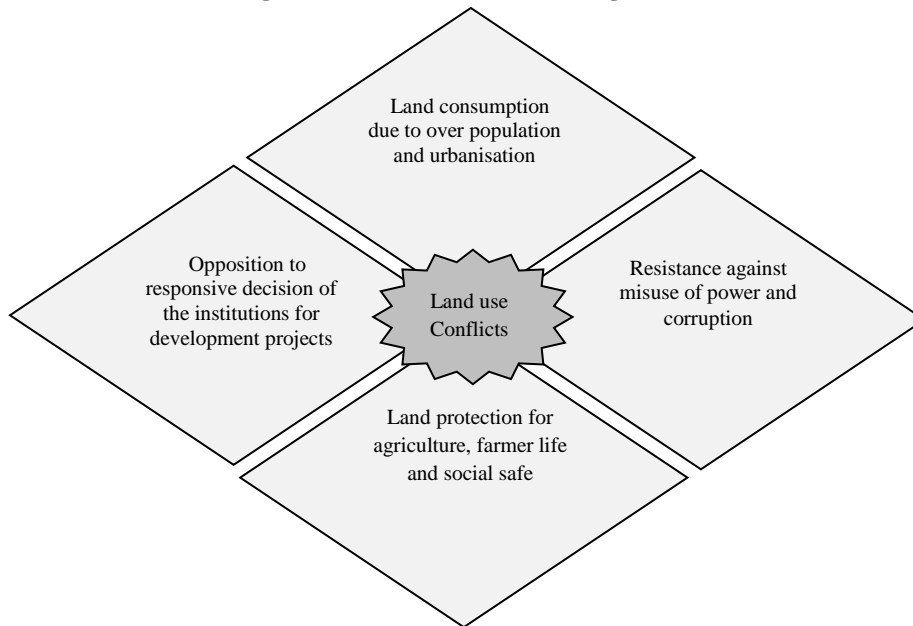
Source: Authors' extraction from *The Rio Times; Survival International* 09-04-2010.

Such conflicts seem to be the result of both need and greed, which not only degrade the natural resources, but also put the lives of indigenous people at risk. According to Ostrom (2007) "local people are dispossessed either due to failure to recognise their rights to land or due to invalidation of those rights by the state". In such economies careful management of natural resources and environmental landscapes are important for development, especially for socio-economic betterment in rural zones [Tscarntke, *et al.* (2005)], otherwise it will work beyond social welfare theory [Cheshire and Vermeulen (2009)]. Most of the resulting conflicts are driven by the underlying frustration of basic human needs and values that cannot be compromised [Abdalla and Timothy (1996)].

3.2. Land Use Conflict Features

A study of the regional press, corresponding to the case studies that are given in the preceding subsection (see Boxes 1–5) summarizes the main peculiarities which define and describe the driving forces of land use conflicts (see Figure 1).

Fig. 1. Land Use Conflict Driving Forces

Source: Authors' extraction from the *Daily Regional Press* (DRP) in developing countries.

The land use conflicts are disagreements resulting from the policy responsiveness of institutional behaviours, i.e. government and judiciary, for their decision towards the development projects. Thus, the decision for an infrastructural project, which would have a direct impact on the land owner's survival, would create tensions, and ultimately lead to a conflict of land use. Such conflicts emerge from situations in which the localities attempt to ignore or challenge those decisions as an overstrained power. It further reveals that in the developing world, such projects are initiated on the basis of increasing public needs (social safe), which are directly proportionate with the increase in population. Some decisions related to the projects are also made in a non-democratic way[2] and that is why there is opposition to the nature of such flawed projects.

For example, in the case of Chotiari water reservoir construction in Pakistan, the evicted families were referred to the courts for justice. At first, the courts proceeded with the land use and compensation related cases, but after inauguration of the reservoir in 2003, almost all cases were discarded without any decision, because of the involvement of high profile officials and bureaucrats [Nauman (2003)]. On the other hand, in the case of Lombok International Airport in Indonesia, despite regular agitations, government never invited land owners for a dialogue [LRAN (2007)]. Likewise, Ahmed Yani, one of the land owners led others affected to agitate, in order to raise their voices for compensation. He was accused and declared as a lunatic, and there is still no information about him, as he disappeared after the event. The incident of Mr Yani's disappearance has not only discouraged the local settlers to demand their compensation, but also suppressed their voices [Mataram (2008)]. Contrary to developed countries, there are few ways to express public opposition, and local population cannot use the voice channel [Hirschman (1970)] in order to express their will and their disagreement with the projects proposed by the authorities.

4. APPROACHES TOWARDS THE LAND USE CONFLICT PREVENTION: A DISCUSSION

This section provides insights on the misuse of political strategy and institutional inconsistency (lack of organised proximity between infrastructures promoters and local population). Readers are also informed as to how land use conflict preventive measures can be taken, in order to avoid violent oppositions and social incoherence, and to maintain the possibility of local development in emerging regions and countries.

4.1. Prevention Strategy and Dimension

In order to define or identify the successful resolution of conflicts and implementation of preventive measures, it is important to be aware of their causative factors [Burton (1993)]. Fundamentally, conflict prevention is defined as a range of actions or a set of instruments undertaken by an organisation to deal with a potential tension, before it turns into a conflict or violence [Bercivitch and Jackson (2009);

---

[2]Some projects seem to have roots in corruption and greed, which are doomed to benefit to a few stakeholders rather than to whole society or economy [Lama (2008); Nauman (2003); Sharma (2002)].

Clément (1997)]. Land use conflict prevention may be defined as the short term responses, and long term engagement towards the outbreak or recurrence of any conflict at any piece of land due to its economic, social, cultural or religious uses [Daniel (2010)]. To intervene for support, there is a need to promote culture of justice and good governance towards human and property rights with their ownership protections [Rooij (2007)], and to uphold the rule of law and respect pride of the inhabitants [Schlager and Ostrom (1992)]. According to Wehrmann (2008), "the prevention from land use conflicts can be achieved only by a combination of correcting institutional weaknesses and introducing good governance".

One of the solutions to avoid such conflicts at an early stage, is to keep local populations informed [Ackermann (2003)], or give awareness about the projects, as well as to increase the level of local democracy through participatory approaches. In this study, this approach, in particular is interpreted in terms of promotion of organised proximity links between the infrastructure developers and their local supports on the one hand, and the local population on the other [Torre and Rallet (2005); Magsi and Torre (2014)]. The concept of preventive diplomacy [Swanström and Weissmann (2005)] can be extracted from the intensity of the conflicts prevailing in the said regions, and further, these strategies can be referred to for application in the region. For better illustrations regarding the conflict prevention measures [OECD (2008)], it is important to have a look on some basic questions like, what are new factors/stakeholders contributing in prolonging conflict dynamics, and what are the interests, goals, positions, capacities and relationships of the stakeholders? Therefore, the decisions towards development projects must be made in the light of the causes and consequences of the prevailing land use conflicts, which will help in the best stage selection for prevention and management. For example, to make sure that the decision has not been taken in the interest of one group/stakeholder, which is going to affect directly or indirectly the other actors, but the criteria of "win-win" theory must be followed.

4.2. Promotion of Development Assumptions

An institutional framework is needed to optimise allocation of land resource and policy innovation, in order to build a sustainable socio-economic development, aiming at land use conflict prevention. Although, land use conflict nature varies across countries, some assumptions are proposed here for prevention of such issues, which are based upon public voices published in the regional press on currently prevailing land use conflicts in the developing countries (quoted in Boxes 1–5) coupled with the author's own experiences in the land use conflict research on various countries [Sheikh, *et al.* (2015); Liu (2014); Torre, *et al.* (2014); Magsi and Torre (2013)]. Fundamentally, the tensions and conflicts can largely be prevented through the promotion of governance structures, social relationships among conflict actors and by ensuring security to local inhabitants. It should always be the responsibility of political, administrative, and economic actors to manage state's affairs, where actors can easily exercise their rights, and can mediate their tensions before transforming into conflicts. For example, development of civil society, access and participation of local inhabitants during feasibility of the projects, demobilisation of agented people and development of ordinances for land and other natural resource planning and protection. Contrarily, if states keep benefitting the ruling class alone, it will surely lead to conflict and violent situations [Eitzen and Ninn (1990)].

Dynamics of spatial conflicts are based on reticular mobilisation of local population and stakeholders through information networks, exchange and sharing of resources that deploy controversial territorial governance, and lead to violent oppositions. As consequences, the protests and oppositions are directly related to the initiation of new public infrastructure projects on farmland as well as due to their unlawful strategic planning [Wang, *et al.* (2015)]. Moreover, before planning or initiating a development project a redress system related to land-acquisition, compensation and resettlement should be clearly established, which should ensure that the affected population may regain their former living standards and prestige [Schlager and Ostrom (1992)].

Therefore, the situation in developing countries (especially from ones the case studies are taken) is much more complex with respect to conflicts and oppositions. Because the networks and stakes are more intricate, legal protections are consistently lower, the aims and goals of the project are rarely explained to local stakeholders clearly, and the level of information of the local population about their rights is quite inconsistent. In the rural settings, land use problems are mostly created by influential landlords or politicians, because the owners of the land are unable to understand their rights, and at times, even they do not know about the economic value of their land. Thus, the process and structure in which use and control of the land is managed forcibly, and decisions are implemented without democratic process, can be termed as land governance failure [Palmer, *et al.* (2009); Borras-Jr and Franco (2010)]. As generally understood today, the range of actors in the land use policy decisions are seen in complexities due to lack of good governance.

5. CONCLUSION

The aim of this article is to contribute to the research on land use conflicts in the selected developing countries, which occupy an important place in social science literature and the daily press. These conflicts are of different types due to the involvement of various stakeholders, with their peculiar needs and their spatial and temporal scale. It can be defined that the land use conflicts are the result of the competition towards actual to future use of the land, which might have a higher probability of confrontation related to the level of information, and involvement of local population.

In this article, the main features of the existing land use conflicts in the developing countries selected, are explored, and then these are distinguished on the basis of competition between actors for the same piece of land. Authors' general thesis banks upon a pivotal factor—the lack of involvement of local inhabitants for a development project—leads to tensions and (violent) conflicts in the region. Sometimes, governments or political leaders impose their decisions forcibly due to their provocative and manipulative behaviours, or the involvement of the powerful personalities ignores local inhabitant's rights in a suppressed society. As a result, in most cases, people in developing countries are cornered to adopt violent pathways rather than to follow a legal route.. Furthermore, the rise of population also increases the demand of infrastructural projects, thus, land use conflicts may enhance as the pressure increases on the land, if preventive measures are not taken with respect to conflict sensitivity.

Therefore, research intervenes in the field work to prevent conflicts by creating change in people's attitudes, thought processes and relationships. It also focuses more on the supporting processes rather than concrete quantifiable outcomes. Because any

decision made with the conflict sensitivity will lead to a deeper understanding of the conflict dynamics, which will further potentially contribute in its actual prevention. These steps are crucial in order to ensure that the economic development of emerging regions or countries is not made at the expense of the wills and rights of the local populations.

REFERENCES

Abdalla, C. W. and W. K. Timothy (1996) Breaking the Impasse: Helping Communities Cope with Change at the Rural-urban Interface. *Journal of Soil and Water Conservation* 51:6, 462–466.

Ackermann, A. (2003) The Idea and Practice of Conflict Prevention. *Journal of Peace Research* 40:3, 339–347.

Awakul, P. and S. O. Ogunlana (2002) The Effect of Attitudinal Differences on Interface Conflict on Large Construction Projects: The Case of the Pak Mun Dam Project. *Environmental Impact Assessment Review* 22:4, 311–335.

Bercivitch, J. and R. Jackson (2009) *Conflict Resolution in the Twenty-first Century: Principles, Methods, and Approaches.* The University of Michigan Press, USA. 90.

Borras-Jr, S. M. and J. C. Franco (2010) Contemporary Discourses and Contestations around Pro-poor Land Policies and Land Governance. *Journal of Agrarian Change* 10:1, 1–32.

Burton, J. (1993) Conflict Resolution as a Political Philosophy. In J. D.S. Dennis and H. Marve (eds.) *Conflict Resolution Theory and Practices: Integration and Application*. Manchester University Press, 55–64.

Campbell, D. J., H. Gichohi, A. Mwangi, and L. Chege (2000) Land Use Conflict in Kajiado District, Kenya. *Land Use Policy* 17:4, 337–348.

CDT (2009) Thirty Thousand Villagers Protest in Eastern China. *China Digital Time*, 26 July. (accessed: 22 December 2014) http://chinadigitaltimes.net/2009/07/3000-villagers-protest-in-eastern-china/

Cheshire, P. and W. Vermeulen (2009) Land Markets and their Regulation: The Welfare Economics of Planning. In H. S. Geyer (eds.) *International Handbook of Urban Policy, Vol. II: Issues in the Developed World*. Cheltenham, UK: Edward Elgar. pp. 152–193.

Clément, S. (1997) *Conflict Prevention in the Balkans: Case Studies of the Fyr Macedonia*. Institute for Security Studies of WEU.

Daniel, K. (2010) The Position of African Traditional Religion in Conflict Prevention. *International Journal of Sociology and Anthropology* 2:2, 023–028.

Deininger, K. and R. Castagnini (2006) Incidence and Impact of Land Conflict in Uganda. *Journal of Economic Behaviour and Organisation* 60:3, 321–345.

Eitzen, D. S. and M. B. Zinn (1990) Power and Politics. In D. S. Eitzen and M. B. Zinn (eds.) *Conflict and Order Understanding Society*. Allyn and Bacon publishers Massachusetts, USA, 371–404.

Hirschman, A. O. (1970) *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.

Lama, M. P. (2008) Internal Displacement in India: Causes, Protection and Dilemmas. *Forced Migration Review* 8: 24–26.

Liu, Y., F. Fang, and Y. Li (2014) Key Issues of Land Use in China and Implications for Policy Making. *Land Use Policy* 40, 6–12.

LRAN (2007) Police Open Fire on Peasants in Lombok, Indonesia. Land Research Action Network. (accessed: 14 September 2012) http://www.landaction.org/spip/spip.php?article150

Magsi, H. and A. Torre (2013) Approaches to Understand Land Use Conflicts in the Developing Countries. *The Macrotheme Review* 2:1, 119–136.

Magsi, H. and A. Torre (2014) Proximity Analysis of Inefficient Practices and Socio-spatial Negligence: Evidence, Evaluations and Recommendations Drawn from the Construction of Chotiari Reservoir in Pakistan. *Land Use Policy* 36:1, 567–576.

Mahaprashasta, A. A. (2012) Land and Caste. *Frontline* 29:10.

Mann, C. and P. Jeanneaux (2009) Two Approaches for Understanding Land-Use Conflict to Improve Rural Planning and Management. *Journal of Rural and Community Development* 4:1, 118 –141.

Marshall, E. P. and J. S. Shortle (2005) Urban Development Impacts on Ecosystems. In S. J. Goestz, J. S. Shortle, and J. C. Bergstrom (eds.) *Land Use Problems and Conflicts: Causes Consequences and Solutions.* New York: Routledge Publishers. 61–72.

Mataram, I. (2008) Understanding Conflict on the Development of Lombok International Airport, Research Report. http://wmc-iainws.com/09-MMC%20Mataram.pdf

McCarthy, J. D., C. McPhail, and J. Smith (1996) Images of Protest: Dimensions of Selection Bias in Media Coverage of Washington Demonstrations, 1982–1991. *American Sociological Review* 61:3, 478–499.

Nauman, M. (2003) Ravaged Ecology, Cruel Displacement and Impoverished Livelihoods. *Water Nepal* 9 (½): 313–318.

OECD (2008) Guidance on Evaluating Conflicts Prevention and Peace-building Activities. Organisation for Economic Co-operation and Development, (accessed: 13 September 2010) www.oecd.org/dac/evaluationnetwork

Ostrom, E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action.* Cambridge: Cambridge University Press.

Ostrom, E. (2007) Challenges and Growth: The Development of the Interdisciplinary Field of Institutional Analysis. *Journal of Institutional Economics* 3:3, 239–264.

Ostrom, E. and H. Nagendra (2006) Insights on Linking Forests, Trees, and People from the Air, on the Ground, and in the Laboratory. *Proceedings of the National Academy of Sciences* 103:51, 19224–19231.

Owen, L., W. Howard, and M. Waldron (2000) Conflicts Over Farming Practices in Canada: The Role of Interactive Conflict Resolution Approaches. *Journal of Rural Studies* 16:4, 475–483.

Palmer, D., S. Fricska, and B. Wehrmann (2009) Improved Land Governance. United Nations Human Settlements Programme. Land Tenure Working Paper 11. (accessed: 21 January 2015) ftp://ftp.fao.org/docrep/fao/012/ak999e/ak999e00.pdf

Robertson, M. (2010) China's New Land Use Law Makes What was Illegal Legal. *The Epoch Times*, 11 February. (accessed: 28 October 2014) http://www. Theepochtimes. com/n2/content/view/29533/

Rooij, B. V. (2007) The Return of the Landlord: Chinese Land Acquisition Conflicts as Illustrated by Peri-urban Kunming. *Journal of Legal Pluralism* 55, 211–244.

Schelling, T. C. (1960) *The Strategy of Conflict.* Harvard University Press, MA.

Schlager, E. and E. Ostrom (1992) Property-Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics* 68:3, 249–262.

Scudder, T. (2005) *The Future of Large Dams: Dealing with Social, Environmental, Institutional and Political Costs*. Earthscan, London.

Sharma, M. (2002) Lands of Conflict. *Frontline* 19:13.

Sheikh, M. J., M. R. A. Abu-Samah, M. A. Mangrio, and L. Baloch (2015) A Quantitative Survey of Water Management Issues in Rural Sindh. *The Government: Research Journal of Political Science* 4, 101–119.

SI (2010) Yanomami Indians Protest against Illegal Miners. *Survival International*, 09 April. (accessed: 19 August 2010) http://www.survivalinternational.org/news/5787

Singhal, A. (2009) India's Agriculture Challenge. Online Business Standard. (accessed: 14 September 2010) http://www.business-standard.com/india/news/india%5Cs agriculture -challenge/368164/

Swanström, N. L. P. and M. S. Weissmann (2005) Conflict, Conflict Prevention and Conflict Management and Beyond: A Conceptual Exploration. Concept Paper Summer 2005, Uppsala, Sweden.

Tilt, B., Y. Braun, and D. He (2009) Social Impacts of Large Dam Projects: A Comparison of International Case Studies and Implications for Best Practice. *Journal of Environmental Management* 90, S249–S257.

ToI (2014) YEIDA Settles Farmers Issues, Realtors Hails from the Development. November 26 (accessed: 10 January 2015) http://timesofindia.indiatimes.com.

Torre, A., V. H. Pham, and A. Simon (2015) The Ex-ante Impact of Conflict over Infrastructure Settings on Residential Property Values: The Case of Paris's Suburban Zones, Urban Studies, doi:10.1177/0042098014546499

Torre, A. and A. Rallet (2005) Proximity and Localisation. *Regional Studies* 39:1, 47–60.

Torre, A., R. Melot, H. Magsi, L. Bossuet, A. Cadoret, A. Caron, S. Darly, P. Jeanneaux, T. Kirat, H. V. Pham, and O. Kolokouris (2014) Identifying and Measuring Land-use and Proximity Conflicts: Methods and Identification. *Springer Plus* 3:85.

Tscarntke, T., A. M. Klein, A. Kruess, I. Steffan-Dewenter, and C. Thies (2005) Landscape Perspectives on Agricultural Intensification and Biodiversity—Ecosystem Service Management. *Ecology Letters* 8, 857–874.

UNDP (2004) Conflict Prevention: National Human Development Report, Bureau for Conflict Prevention and Recovery. http://hdr.undp.org/en/media/Conflict_GN.pdf

UNEP (2004) Dams and Development Projects. United Nations Environmental Programme. Issue based Workshop Proceedings, 14-15 June 2004, Nairobi, Kenya.

Vainer, C. B. (2007) Hydraulic Resources: Social and Environmental Issues. *Estudos Avançados* 21:59, 119–138.

Wang, G., Y. Liu, Y. Li, and Y. Chen (2015) Dynamic Trends and Driving Forces of Land Use Intensification of Cultivated Land in China. *Journal of Geographical Sciences* 25:1, 45–57.

Wehrmann, B. (2008) *Land Conflicts: A Practical Guide to Dealing with Land Disputes.* Handbook, Deutsche Gesellschaftfür Technische Zusammenarbeit (GTZ), Eschborn, Germany.

Pakistan's Monetary Policy:
Some Fundamental Issues

ZAFAR HAYAT

Over the last three decades, the landmark transformation of central banks from secrecy to openness and transparency has significantly enhanced their performance to successfully anchor inflation expectations and achieve price stability. The extent of such a transformation of the State Bank of Pakistan (SBP), especially in terms of statutory objectives, monetary policy mandate, conflicts of interest, disclosures, and dissemination of effective public economic information is assessed *vis-à-vis* the current popular central banking practices. The assessment indicates that the SBP is yet to be transformed to be able to achieve price stability which is a cornerstone for the achievement of sustainable economic growth. On the statutory front, such a transformation requires amending the SBP Act 1956, in line with the statutes for the best monetary policy frameworks by; (1) making price stability as the overriding objective of the SBP; (2) putting in place a clear mechanism for its accountability against price stability, consistent inflation targets, and; (3) elimination of the cushion for government's involvement with the monetary policy decision making processes. Some of the other areas like, institutional capacity building of the SBP, in terms of the relevance and level of the academic qualification, research profiles, and experiences of the Board, higher as well as lower tier management need special attention. Such transformations may not only enhance assimilation, creation, sharing, and funnelling of existing as well as new knowledge into monetary policy formulation, but may help change the static mindset at the SBP, hence allowing the institution to flourish.

1. INTRODUCTION

The role of transparency in terms of a monetary policy decision making process and communication has been increasingly recognised, as an important component of the best central banking practices [Blinder, *et al.* (2008); Winkler (2002) and Fry, *et al.* (2000)]. The leading central banks such as the Federal Reserve (Fed), European Central Bank (ECB), and largely the inflation targeters including the developing countries have

Zafar Hayat <zafarhayat78@gmail.com> is a PhD in Economics from School of Economics and Finance, Massey University, New Zealand.

transformed into more open and informative central banks, since 1990s instead of being secretive until the 1980s.[1]

Motivation for this transformation from a secretive to a more communicative approach hinges on the non-trivial benefits—the transparency and effective communications confer. For instance, it allows the central banks to anchor inflation expectations more effectively [Geraats (2005)] and reduces uncertainty both from the perspective of financial and public markets. [Geraat (2007)]. It enhances predictability [see Swanson (2004) and Gerlach-Kristen (2004)] and enables economic agents to plan and take rational decisions. It also facilitates central bank's accountability, thereby paving the way for an increased central bank independence. This in turn helps to improve the quality of a central bank's own functioning through credibility build-up [Winkler (2002)]. Thus, by and large, the increased emphasis on transparency and communication has led the central banks to open up and communicate with clarity and precision, particularly in terms of their objectives, mandate, disclosures, and appropriate dissemination of public economic information. To what extent has the SBP progressed on these lines is an open question?

It is however pertinent to mention that although, some of the studies have evaluated the transparency and performance of Pakistan's monetary policy, none of them attempted to critically highlight the fundamental issues—related to the SBP's monetary policy statutory framework, decision making, the conflicts of interest, disclosures, and dissemination of public economic information with possible implications for the SBP's credibility and effective communication. For instance, Malik and Din (2008) attempted to assess the SBP's monetary policy, while evaluating its transparency against the scores given in Eijffinger and Geraats (2006). Ahmed and Malik (2011) have also attempted to assess the SBP's monetary policy performance by using counterfactual simulations. They employed a simple Taylor rule and concluded: had the SBP followed a rule, its performance would have been better. Hayat (2014a) empirically assessed the SBP's monetary policy performance for a period of 50-years from 1961–2010, with a focus on the evaluation of the discretion granted to the SBP for the achievement of its dual objectives, inflation, and growth. He found robust evidence that by exercising their discretion, the monetary policy makers at the SBP created excessive inflationary pressures in the economy that harmed the real growth for 62 percent of the time—hence, defeating both of its key objectives of inflation, and real growth.

Given this backdrop, the current paper intends to critically assess the SBP's monetary policy, while drawing on some fundamental issues largely from a statutory perspective with implications for the SBP's credibility and effective conduct of the monetary policy. Since there is no standard pattern of central banking practices that can be used as a benchmark for the underlying assessment, this paper mainly relies on the prevailing practices of leading central banks, as well as inflation targeters as a reference point. To fill the gap, the remainder of this paper is structured into the following sections. Section 2 critically discusses the statutory objectives in the SBP Act, 1956 which is set

---

[1]For instance, the Fed in the 1970s was sued to give the first written defence for its secretive behaviour. The seminal paper of Goodfriend (1985) provides a detailed exposition of the case, the defence of the Fed for the secrecy and the weaknesses therein.

out for the SBP and elicit the problems therein that hinders its effective performance of monetary policy. Section 3 highlights the SBP's issues pertaining to the statutory monetary policy mandate, its potential both as a monetary policy guiding framework, as well as a design for its performance evaluation and accountability. Section 4 delves into the potential conflicts of interest originating from the dual supervisory and monetary policy role of the SBP, fiscal dominance, and the Board's market affiliations that might hinder the effective conduct of the monetary policy. Section 5 focuses on the disclosures of the profiles, minutes and voting records of the Board and assesses the efficacy of the SBP's performance in terms of dissemination of public economic information—especially forecasts, Monetary Policy Statement (MPS) and major publications. The last section concludes the paper.

2. STATUTORY OBJECTIVES

In case of Pakistan, Section 9A of the SBP Act (1956) vests the responsibility of the conduct of monetary policy with the SBP's apex body in these words:

> The Central Board, in order to secure monetary stability and soundness of the financial system—(a) formulate and monitor monetary and credit policy and, in determining the expansion of liquidity, take into account the Federal Government's targets for growth and inflation, and ensure that the Bank conducts monetary and credit policy in a manner consistent with these targets….. p. 10.[2]

The wording of the Act implies that essentially the SBP has dual objectives, i.e. inflation and growth. The government sets annual inflation and growth targets each year, and as per the statute the SBP is supposed to actively pursue it. Majority of the countries abandoned this kind of a framework back in the 1990s. The central banks no longer actively pursue ambitious growth targets such as the ones set by the Government of Pakistan (to be discussed in the next subsection). This transformation occurred largely on the back of the seminal research of Kydland and Prescott (1977). Hundreds of studies also [see Gartner (2000)] reveal that a central banker, who actively pursues the real growth in the long-term, ends up creating excessive inflation in the economy without any significant output gains. Another strand of literature shows that money is neutral in the long-run [see Weber (1994); Lucas (1995); Apostolos and Koustas (1998) and Bullard (1999)], which implies, creation of high average inflation without any corresponding long-term growth gain. To this effect, Hayat (2014d), while using the data from Pakistan for the period i.e. 1961–2010 found empirical evidence that monetary neutrality holds.

The maintenance of the status quo of the SBP Act regarding the duality of inflation, and growth targets even in the wake of the second decade of the twenty-first century is naïve. Active pursuit of dual mandate was not surprising until the 1960s, because prior to that the central banks were believed to be able to fetch higher growth

---

[2]It is imperative to mention that the SBP is expected to take care of other objectives such as exchange rate and financial stability, however these are neither clearly defined as to exactly what they constitute nor there exist quantitative targets for such objectives. Therefore, the main focus in this section is on the SBP's dual objectives of inflation and growth, and the issues emerging from their numerical targets.

rates by accepting relatively higher inflation—a phenomenon commonly referred to as the Phillips Curve. However, lately the world has learnt that the Phillips Curve became less steep in the 1970s and flat in the 1980s. Later in the 1990s, overwhelming evidence has been found that higher average inflation, instead affects the real growth adversely [Barro (1995); Ireland (1999)]. Thus, in light of the new knowledge, the focus of many central banks—irrespective of the underlying form of monetary policy strategy, whether inflation targeting or otherwise—shifted towards price stability. It helps in attaining a sustainable possible level of real growth without affecting the society adversely. Part of the change is also an acknowledgement of the knowledge that real growth is a function of a range of other factors beyond the control of the central banks, such as initial endowments, human capital, research and development, law and order, and so forth [see Levine and Renelt (1992); Barro (1995-96)].

Amidst these developments, the Government of Pakistan continues to stick to the outdated tenets of the SBP Act and sets the inflation, and growth targets in a way, where it is hard to find any fundamental economic theory or a standard central banking practice that may lend support to the naivety in these targets. Based on the government's assigned inflation and growth targets, the chances of formulation of an effective monetary policy are remote. Instead of providing any guiding framework, these targets essentially misguide the SBP and its monetary policy. The discussion of issues associated with individual inflation and growth targets as well as with their combination follows.

2.1. The Government's Assigned Growth Targets

The government's assignment of growth targets to the SBP and the latter's subsequent pursuit for its achievement potentially induces inflation bias. As was argued by Kydland and Prescott (1977) and Barro and Gordon (1983a, b) that inflation bias results from the monetary policy makers' temptation to spur the real growth beyond its potential without any output gains. Since, the Government of Pakistan generally sets the real growth targets, beyond the potential rate of the economy (Figure 1), attempts on part of the SBP for its achievement that leads to the creation of undesirable excess inflation in the economy.[3]

For example, Hayat (2014a) found empirical evidence that the SBP induced excess inflationary pressures in the economy, which hindered real growth for around 62 percent of the 50 years from 1961–2010. This inflation bias over the period has resulted in undermining the SBP's credibility and effective conduct of monetary policy. Surico (2008) noted that in the case of the U.S., the Fed did tolerate even 1 percent inflation bias in the pre-1979 era, which they simultaneously eliminated by bringing inflation close to the 2 percent level. Whereas in case of Pakistan, Hayat (2014b) asserted that eight times higher average inflation bias than that of the U.S. has not been able to prompt either the government or the SBP to take long-lasting serious remedial measures for its elimination.

---

[3]The natural rate of the economy is extracted from real growth using HP filter by employing the penalty parameter $\lambda = 100$, which is the recommended level for annual data.

Fig. 1. Annual Growth Targets and Natural Rate of the Economy
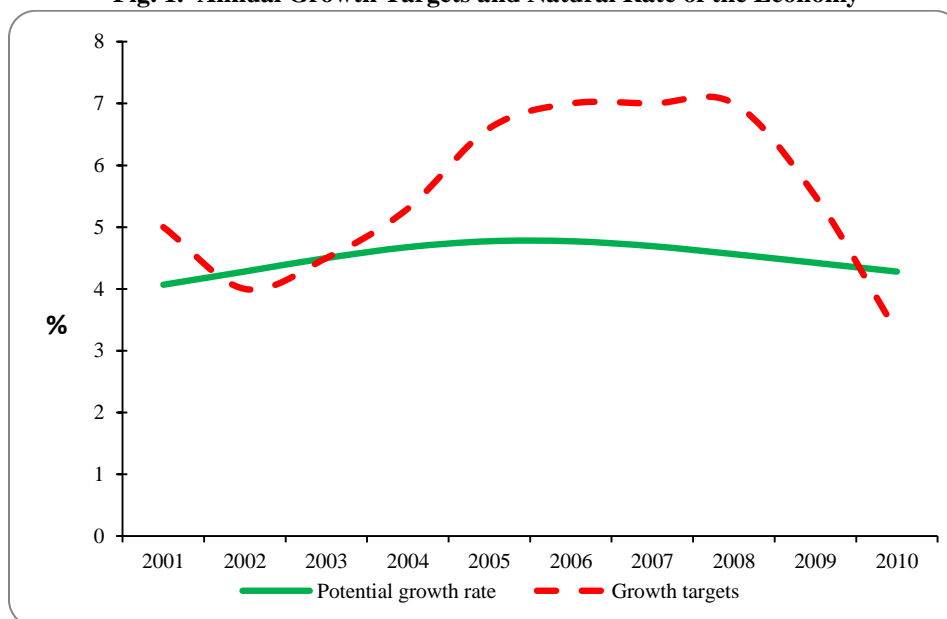
Source: Author's estimation and SBP Annual Reports.

Given the limitations of monetary policy in terms of its ineffectiveness in stimulating the real growth, even the countries with dual mandate do not set any numerical growth or employment targets for the central banks. For example, in the case of the U.S. the statute requires the Fed to attain maximum possible employment, but unlike Pakistan, the government has no specific unemployment or growth targets, which the Fed is required by statutes to take into account, while formulating a monetary policy. Instead, the Fed maintains inflation at or close to 2 percent level, as in its view this rate allows the Fed to firmly anchor inflation expectations, which helps foster price stability and moderate long-term interest rates. In turn, it enhances the Fed's ability to promote maximum employment. Unlike the SBP, the Fed clearly acknowledges that the maximum level of employment is largely determined by non-monetary factors. Since, these factors may change over time and may not be directly measurable; therefore neither the U.S. Government nor the Fed specifies any numerical targets for maximum employment or growth.

Likewise, it may not be a beneficial practice in case of Pakistan to set binding numerical growth targets for the SBP, especially higher than the natural rate of the economy as shown in Figure 1, because it induces inflation bias without any growth-gain [Kydland and Prescott (1977)]. This is more likely due to the fact that non-monetary factors largely determine the growth beyond the direct control of a central bank. The SBP instead can pave the way for the achievement of a sustainable growth by ensuring 'price stability'.

2.2. The Government's Assigned Inflation Targets

Quantitative inflation targets are set by the federal government each year. When observed over a horizon, these targets exhibit too high and erratic inflation rates to help

achieve short, medium or long-term price stability (Figure 2). The government inflation target-setting strategy is problematic from three perspectives.

First, as a starting point, a default inflation bias element is induced on the part of the SBP by creating an implicit floor inflation rate. For instance, as is shown in Figure 2, in the last one and a half decades, by and large, the government has set the inflation targets far above than the 4 percent level. This implicit floor automatically biases the SBP towards inflation, as it does not have to be wary to bring it down below this level to stabilise it in a narrow price stability, consistent range from 1 percent–3 percent in the medium to long-term. The price stability consistent inflation targets range in the Figure 2 is depicted by the dashed lines, where the government did not set inflation target(s) even once,, which allows more room for undesirably high and volatile inflation.

Fig. 2. Government's Assigned Annual Inflation Targets
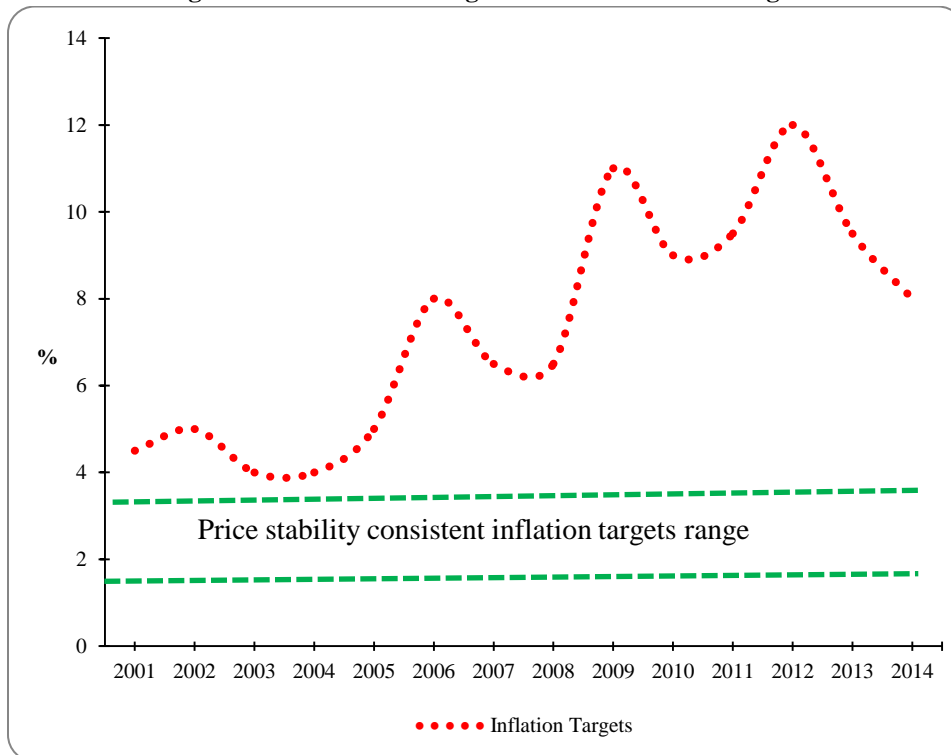
Source: SBP Annual Reports.

These inflation targets seem to drive the behaviour of the SBP's monetary policy authorities. Hayat (2014d) observes the discretionary behaviour of Pakistan's monetary policy maker over a 50 year timeframe with the help of discretion indicator depicted in Figure 3. He notes that the turning points at the trough of the discretion indicator corresponds to a 4.4 percent observed inflation on average. He argues that this behaviour of the SBP for not allowing inflation roughly below 4 percent level is highly consistent with Cukierman's (2000) new inflation bias proposition—that such a central banker is wary that economy may sink into recession.

Fig. 3. Time Plot of the Discretion Indicator
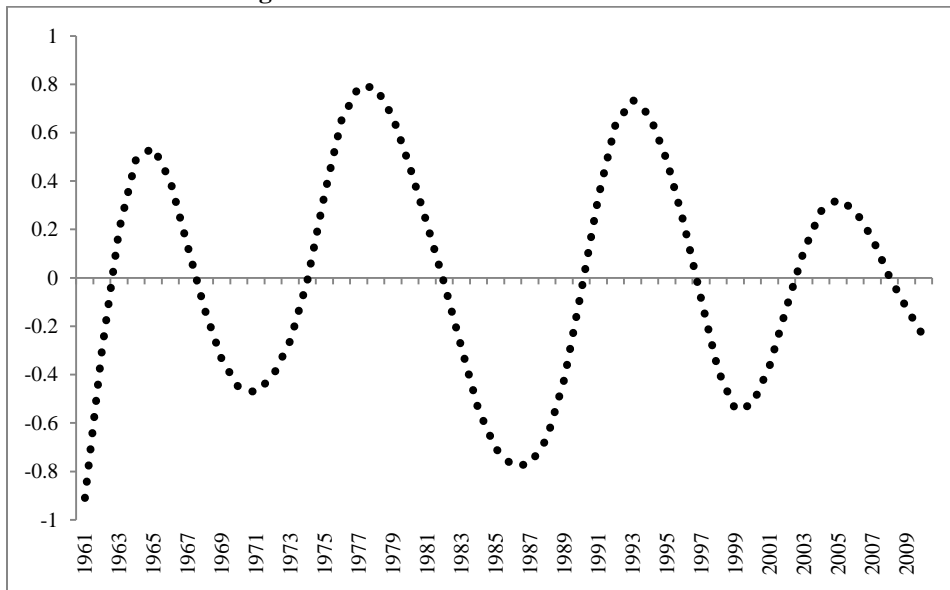
Source: Hayat (2014d).

Therefore, the government's high average numerical inflation targets coupled with the SBP's active pursuit of higher than natural rate of the economy undermines its ability to successfully anchor inflation to the extent to maintain price stability. Since at times the inflation targets are set as high as 12 percent, the inflation expectations are naturally anchored accordingly at higher levels. In other words, when it is announced that inflation is expected to be 12 percent, how can public expect that inflation would be lower, say at 6 percent? The inflation targets setting strategy of the government, thus potentially leads to a higher than equilibrium rate of inflation that is technically known as inflation bias.

Second, a nontrivial complication arises due to the government's naïve inflation targets as shown in Figure 2, in the sense that it is not possible to adjust monetary policy in response to such erratic inflation targets each year, and expect them being achieved; especially owing to the established fact that monetary policy actions takes effect with a lag [Friedman (1968); Havranek and Rusnak (2013)]. For argument sake, assuming even if no lags were involved in monetary policy, a perfect achievement of the government assigned inflation targets would instead have derailed the economy from the path of price stability. For example, average of the inflation targets for a 14 year period in Figure 2 is 7.32 percent and its variance is 6.98 percent, which is highly inconsistent with the standard definition of 'price stability'.[4] Normally 2 percent inflation rate is considered consistent with the notion of price stability. For example, in the case of the U.S., the Federal Open Market Committee (FOMC)'s mandate-consistent inflation rate is generally judged to be about 2 percent or a bit below. Similarly, price stability is defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the Euro Area of below 2 percent by the ECB. Further, the inflation targeters (both develop and

[4]Price stability refers to a state of the economy characterised by low inflation and a stable value of money.

developing countries) largely targets inflation in a range of 1 percent–3 percent. Thus for the attainment of price stability, the dashed lines in Figure 2 indicate that the inflation rates in Pakistan will have to be contained in the 1 percent–3 percent range.

Third, given the government inflation targets-setting strategy, unlike other countries, the SBP may neither be made accountable for the maintenance of price stability, nor its inflation performance can be evaluated. As a result, it is not possible for the SBP to build its credibility to anchor inflation expectations at lower levels, because it cannot send non-noisy signals of commitment to a low and stable inflation rate over medium and long-term. Since the public, especially the private sector is rational; they do understand the inherent flaws in the overall monetary policy framework and therefore adjust their expectations accordingly.[5] Thus given the current monetary policy framework, the SBP may not successfully delink the inflation expectations of the public from high and erratic inflation rates. Therefore, like the central banks in other advanced and inflation targeting countries, if the SBP has to be made accountable, while putting in place a mechanism for its performance evaluation, the government will have to set appropriate inflation targets in a short to medium term.

Precisely, the government should set the inflation targets close to 2 percent with a plus/minus 1 percent band to allow for a cushion to deal with unforeseen supply side shocks to the economy.[6] Debelle (1999) notes that an inflation band allows a reasonable cushion with the central banker to deal with shocks to the economy. The better inflation and growth performance of the inflation targeting countries in the wake of recent financial crisis provides anecdotal evidence to this effect. Another possible cushion with the central bank to deal with the shocks could be the targeting of core inflation, which excludes the effects of food and supply side shocks, hence easing off to an extent the strict accountability.

Therefore, if the government sets inflation targets for the SBP in 1 percent–3 percent range, it will (i) significantly enhance the real growth [Hayat (2014a)], (ii) pave the way for the achievement of price stability, (iii) provide a framework for the SBP's accountability and its performance evaluation, (iv) help the SBP build inflation fighting credibility, and (v) would make the SBP's communication with the private and public sectors easier and effective to yield the maximum possible monetary policy benefits.

2.3. The Inflation-growth Targets Nexus

As indicated earlier, in case of Pakistan, the government sets numerical inflation and growth targets on annual basis and the statutes [SBP Act (1956)] makes it obligatory for the monetary authorities to duly consider these targets in formulation of monetary

---

[5]There is a wide consensus on the point that the public is rational as has been modelled by majority of the theoretical models such as Kydland and Prescott (1977), and Barro and Gordon (1983). Moreover, Hayat (2014c) and Abbas, *et al.* (2015) found some empirical evidence about the rational expectations behaviour of the public in Pakistan.

[6]Almost all the advanced countries' central banks set their inflation targets around two percent [Romer and Romer (2002)], as this rate is consistent with 'price stability' and even allows a sufficient cushion to trivialise zero lower bound in a world of small shocks [Blanchard, *et al.* (2010)]. Surico (2008) estimated a bias of 1 percent in the case of the U.S. for pre-1979 policy regime, and noted that inflation bias disappears when the inflation target is close to 2 percent. Hayat (2014b) using data from Pakistan found that inflation exceeding 2 percent level significantly constitute inflation bias.

policy. This framework is also problematic not only owing to the issues emerging from the individual inflation and growth targets, but also from a combination thereof in a particular year, or over a period of time. To understand, how such combinations are senseless, it is imperative to briefly highlight the literature on the inflation-growth nexus to be able to relate it to the government's inflation and growth targets mix.

The relationship between inflation and growth is far from straightforward. For example, up till the mid 1970s, the Phillips Curve (positive relationship between inflation and growth) was popular, while the empirical evidence in the 1990s suggests a negative relationship [see for example, De Gregario (1992-93); Barro (1995) and Ireland (1999)]. One of the aspects of empirical evidence in the 1990s and 2000s, suggest a nonlinear relationship between inflation and growth [see for example, Fischer (1993); Sarel (1996) and Khan and Senhadji (2001)]. Divergence in the long and short-term effects of inflation on real growth is yet another dimension. For example, long-term inflation is believed to be negatively affecting growth, however in the short-run, monetary policy can be used to stabilise shocks to the real economy, which suggests a short-term positive relationship between the two.

Nevertheless, as can be seen from Figure 4, the government's assigned inflation and growth targets neither follow a consistent pattern, nor can guide monetary policy in a particular direction. These targets do not depict any consistent relationship that can be related to or inferred from the literature on inflation growth nexus evolved over time—a positive relationship of the 1960s and a negative (or) a non-linear relationship on-ward. Naïve combinations of inflation and growth targets on annual basis in the existing fashion hamper the conduct of monetary policy in an appropriate manner. It does not allow an effective and beneficial conduct of monetary policy, because of the unavailability of any underlying fundamental economic theory or practice.

Fig. 4. Combination of Government's Annual Inflation and Growth Targets
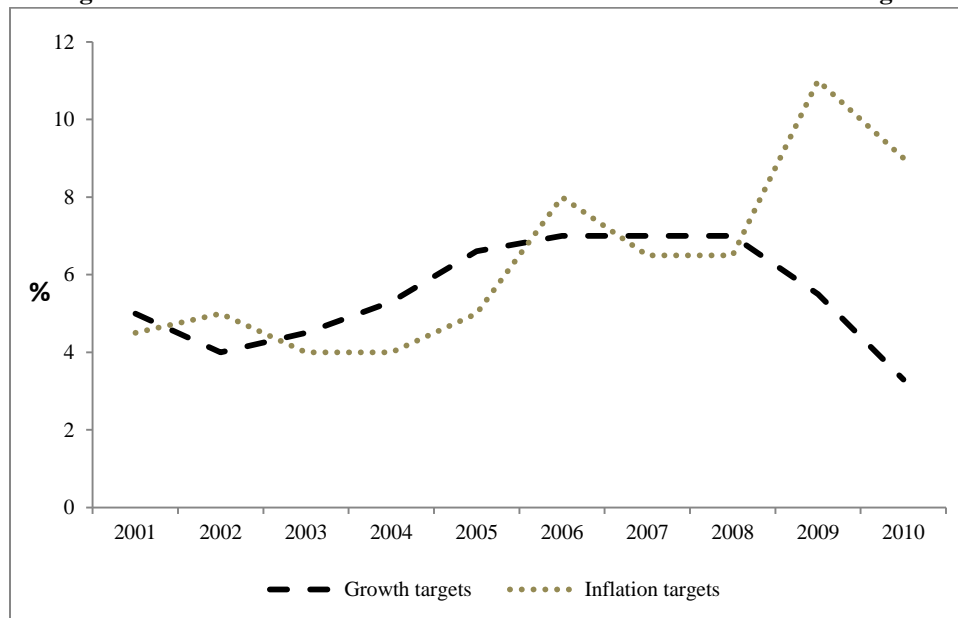
As highlighted earlier, the government's individual inflation targets does not provide an appropriate benchmark for the SBP's performance evaluation, a mechanism for its accountability on its basis therefore may not be designed. Similar is the case when combination(s) of inflation and growth targets at different points is considered. For example, a combination of divergent inflation and growth targets like that of Pakistan may not be achieved simultaneously on a period by period basis, especially, when there is a conflict between the achievements of the two.

Therefore, as a starting point, the fundamental flaws in government's inflation and growth targets-setting strategy need to be addressed. Indeed, the best way to do it is to set inflation targets in price stability consistent range of 1 percent–3 percent, while making the SBP strictly accountable for its achievement. As far as the growth side is concerned, the government may set growth targets for its own guidance. However, the SBP may not be required to take these into account due to monetary policy in effectiveness in terms of real growth [see Hayat (2014d) for empirical evidence on long-term monetary neutrality].[7] Nonetheless, like other central banks, the SBP may play its part to stabilise short-term shocks to the real economy, as long as the inflation stays within the price stability range and only that monetary policy intervention is deemed effective.

This will help build the SBP's credibility and in turn it may communicate with the public and private sectors more effectively for the achievement of price stability. However, all this would require amending the SBP Act to make price stability as the prime objective of the SBP, while holding it accountable for its achievement. Setting numerical inflation targets around price stability consistent rate of 2 percent from medium to long-term, could be an optimal strategy to help achieve both inflation and growth stability.

3. MONETARY POLICY DECISION MAKING

Section 9.1 of the SBP Act (1956, p.9) constitute that:

> The general superintendence and direction of the affairs and business of the Bank shall be entrusted to the Central Board of Directors, which may exercise all the powers and do all the acts and things that may be exercised or done by the Bank, and are not by this Act expressly directed or required to be done by the Bank in general meeting or annual general meeting.

One may clearly infer from the aforementioned statutes that the Central Board has been empowered hugely concerning the SBP's affairs. In light of the powers conferred via the Act, the Board is mandated to conduct the monetary policy, which is critically discussed in the proceeding sub-sections.

3.1. Mandate for Monetary Policy and SBP's Performance Evaluation

In case of Pakistan, Section 9A of the SBP Act (1956) vests the responsibility of the conduct of monetary policy with the Central Board to secure 'monetary

---

[7]It is important to note that in practice central banks maintain clarity about inflation targets, whereas remain opaque about growth targets [Geraats (2006)].

stability and soundness of the financial system'.[8] The Board is undertaking multiple tasks, for example taking decisions related to the compensation packages of the staff, leave and promotion policies, budget approvals and so forth. Whether, it is the best practice for the SBP Board to spent time on such a huge portfolio, along with a highly specialised and demanding responsibility of the conduct of the monetary policy? In case of the Bank of England (BoE), such functions other than the monetary policy are instead, performed by the Court of Directors (composed of nine non-executive directors) appointed directly by the Crown. The court delegates day to day management of the bank to the governor and through him to other members of the executive, but reserves itself the right to agree on: the bank's strategy and objectives, expenditure budget, major capital projects, financial framework, risk management policies, approval of the accounts and the appointment of auditors. Also, the remit for management of the BoE's balance sheet, senior appointments within the bank, changes in remuneration and pension arrangements, the bank's succession plan, the establishment of sub-committees of the court, their terms of reference, and membership. The court keeps its procedures under close review and each year an annual effectiveness review is conducted on which a report is made to the court.

Further, in the case of the BoE, the Oversight Committee (a sub-committee of the Court) regularly reviews the performance of the BoE in relation to its objectives and strategy such as monetary policy objective, the financial stability objective, and any other objectives set by the court. Should there be such a practice of independent evaluation of the SBP's performance in terms of its objectives by a specialist body other than the Board is an open question. This needs a thorough intellectual debate on the appropriateness of the scope of the SBP Board given their capacity (see Sub-Section 3.3), formulation of any other independent specialist bodies and sub-committees, thereof in light of the best practices to ensure efficient and effective performance of the SBP's portfolio.

3.2. Issues with Monetary Stability as a Guiding Framework for Monetary Policy

Generally the central banks are given a certain mandate, predominantly price stability. Nevertheless, in some cases the mandate may be dual. For instance, in the case of the U.S., the Fed is mandated for price stability and maximum employment by statute. It is reiterated that the government do not quantify such a mandate, instead the FOMC considers 2 percent inflation as price stability consistent inflation rate, which in their view provides an enabling environment for the achievement of maximum employment in addition to other factors beyond its control. Therefore, the Fed despite being discretionary, in terms of duality of objectives has a clear inflation path to follow, the path of price stability.

Unlike the U.S., in case of Pakistan, the wording of the SBP Act when examined carefully, does not allow an appropriate path for the conduct of monetary policy. For example, the SBP Act (1956, p.10) says that:

---

[8]The Central Board of Directors (also referred to as the 'Board') consist of the (i) the SBP Governor, (ii) Secretary, Finance Division, Government of Pakistan, and (iii) eight directors (at-least one from each province).

> The Central Board, in order to secure monetary stability and soundness of the financial system—(a) formulate and monitor monetary and credit policy and, in determining the expansion of liquidity, take into account the Federal Government's targets for growth and inflation and ensure that the Bank conducts monetary and credit policy in a manner consistent with these targets…....

Thus, the statutes guides that primarily the SBP should aim at 'monetary stability' and 'soundness of financial system'.[9] In order to assess if the Act provides a basic guiding framework for the monetary policy, a logical question arises that should 'monetary stability' be the prime objectives of the SBP's monetary policy instead of 'price stability'? If the ultimate goal of the monetary policy is to improve the living standards of people, is monetary stability or price stability the best way to raise their standards in an equitable fashion? To understand which framework between the two can best guide the monetary policy, they are assessed one by one as follows.

To start with, there is no tangible way to exactly define monetary stability for the purposes of monetary policy evaluation. Monetary stability is commonly referred to as the stability in prices, interest rate and exchange rate. Working with this definition, the main problem the existing framework poses is that it is hard to quantify monetary stability to provide an objective basis for conduct, evaluation and communication of monetary policy. Even if monetary stability is to be represented by stability in some measure of money, say growth in M2, then what is that particular growth rate or range of growth rates in M2 that would stabilise prices, interest rate and exchange rate at desirable levels? The flip side of the argument is that what are those unique rates in prices, interest rates and exchange rates that would help achieve monetary stability?

Another way to observe, if the notion of monetary stability can guide monetary policy is to analyse the issue in the context of the SBP's historical approach, which nevertheless—from an operational perspective—has been discontinued since August, 2009 after adopting the interest corridor system. The SBP used to set M2 targets consistent with the government's inflation and growth targets. Qayyum (2008) noted that if for example the government's targets for inflation and growth in a particular year are say 8 percent and 5 percent, respectively, the M2 targets would work out to be the sum of both the targets, which in this case would be 13 percent. Let's see if such a framework may help achieve monetary stability.

Figure 5 depicts the SBP's targets for growth in M2 along with the actual. Two observations are important. First, these targets per se; even if achieved 100 percent, may not represent monetary stability in anyway—as the spread of these targets is quite large ranging from 9 percent to 14 percent. Second, the volatility of the actual growth in M2 is very high—23 percent in terms of variance—to be deemed consistent with the notion of monetary stability. It therefore may not (1) induce any stability in the variables such as inflation, interest rates and exchange rates, (2) it is hard to be communicated to the public as it would not make any sense to them, and (3) it cannot be used as a benchmark for the purposes of monetary policy evaluation and accountability.

---

[9]See Sub-section 4.1 for a discussion on potential conflict of interest that may arise due to the supervisory role of a central bank.

Fig. 5. Historical Performance of the SBP in Terms of the Statutory Monetary Stability Mandate
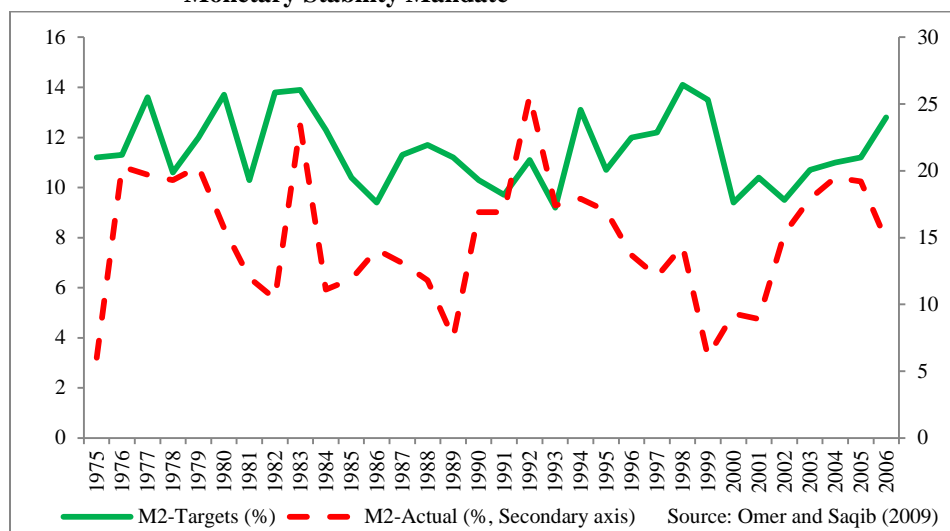
On the contrary to the SBP statute regarding monetary stability and soundness of financial system, a widely acknowledged and popularly practiced notion is that of 'price stability', as it helps raise the standards of living of the people. Price stability allows an economic system to operate more efficiently, while producing higher levels of output and rapid economic growth, [Mishkin (1997)] hence raising the standards of living of the society. Conversely, the absence of price stability generates high costs to society. These costs may be diverse, ranging from the 'shoe leather' costs [Bailey (1956)] to the loss of output [Groshen and Schweitzer (1996)].[10] Considerable work of both theoretical and an empirical nature has been done, either to justify the importance of price stability, or to highlight the costs associated with price instability [see Fischer and Modigliani (1975); Fischer (1981); Briault (1995); Hatch, *et al.* (1998) and Mishkin (2006)]. Indeed this is why the Reserve Bank of New Zealand (RBNZ) Act (1989, p. 27), unambiguously put it in the words that "the primary function of the Bank is to formulate and implement monetary policy directed to the economic objective of achieving and maintaining stability in the general level of prices".

On the back of the aforecited literature and practice, let's consider if the price stability in contrast to the existing monetary stability framework allows an objective basis for conduct, evaluation and communication of the monetary policy. As discussed earlier in Sub-section 2.2, that price stability is generally quantified in terms of inflation rate at or close to 2 percent. Hence, this is easily communicated to the public and at the same time, it allows a benchmark for monetary policy evaluation and accountability.[11] Since

---

[10]Also see English (1996) for the shift of resources from productive use to non-productive use due to inflation.

[11]It may be noted that there may be a slight difference in the practice, for example some countries may consider a range of inflation say from 1 percent to 3 percent as appropriate for achieving price stability. The issues related to the choice of a particular indicator of inflation, i.e. headline or core inflation is beyond the scope of current paper.

price stability implies low variability in inflation, it in turn stabilises variations in the interest rate, exchange rate and money growth. The flip side is that the central banker should aim to stabilise interest rate, exchange rate and money growth at levels that ensure price stability. Therefore, the statutory primary goal of the SBP should be the achievement of price stability and the rest would automatically fell in place.

3.2. The Board and the Governor

Section 9.2.C of the SBP Act (1956, p.9) confers the responsibility of running the affairs of the SBP business with the Board (including the governor), "who shall be eminent professionals from the fields of economics, finance, banking and accountancy, to be appointed by the Federal Government". This covenant of the SBP Act to some extent appears consistent with theory, nevertheless, a brief discussion on the profiles of monetary authorities from other central banks as well as theory may help in inferring as to who such 'professionals' should be?

In order to draw some lessons from, a review of the profiles of some of the central bank's decision making bodies, explicitly indicate that their board members and the governors are eminent economists with impressive profiles, with the highest terminal degrees (PhDs) largely with relevant specialisation, and a wide range of research publications in high ranked international journals. For instance, in the case of the U.S., out of the 12 FOMC members, ten have completed their doctorates in Economics and also carry impressive research profiles in the field of monetary policy. Most of them are working as editors of esteemed economic journals and honoured for their publications in the world's highest ranked journals. Moreover, two members of the FOMC are eminent law professionals who have been serving as editors of esteemed law journals.

Similarly, taking an example of the developing economy like Turkey, all the members on their central bank board including governors have doctorates in Economics and have published research papers in highly ranked journals. Even in the Reserve Bank of India (RBI) four out of the 10 Board members have PhDs with profound profiles in terms of their publications and relevant research. Again, the governor (chairman) of a central bank is normally an economist of a high repute. For instance, in the case of the U.S., historically there have been big names like Alan Greenspan, Ben Bernanke and so forth. On a similar note, even the current governor of the RBI has a renowned profile with impressive publications and is an internationally recognised figure in the relevant field.

The theoretical literature on who should be granted the authority for the conduct of monetary policy can broadly take two forms that can practically be implemented. The first form is that of the incentive contract which is considered as an arrangement between the government and the central banker.[12] Under such arrangements, the policy maker is given a target rate of inflation and is rewarded or punished on the basis of its achievement/non-achievement.

---

[12]Incentive contracts are covered in Canzoneri (1985), Garfinkle and Oh (1993), Persson and Tabellini (1993) and Walsh (1993 b, 1995b).

Second is the delegation of the conduct of monetary policy authority to a weight-conservative central banker.[13] For instance, Rogoff (1985) proposed the delegation of monetary policy authority to an independent central banker who is inflation-averse. Such a central banker puts more weight on inflation and less on the output resulting in lower inflation bias, but the output variability may increase, especially when the supply shocks are large. Several studies extended the idea of delegation including Flood and Isard (1989); Person and Tabellini (1990, 1993); Alesina and Grilli (1991); Lohman (1992); Cukierman (1992) and Svensson (1997a). Romer and Romer (1997) added that the conduct of monetary policy should be delegated to knowledgeable persons who are adept in the evaluation and maximisation of social welfare. Such experts can better and faster incorporate the advances of knowledge in the monetary policy decision making process. Therefore, in most of the countries, the authority of the conduct of monetary policy has been delegated to high profile economists normally to inflation fighters, who in turn demonstrated greater performance in terms of ensuring price stability. For example, after the great inflation of the 1970s, almost all the advanced countries, inflation targeters and most of the emerging and developing economies have managed to bring down inflation rates to 'price stability' consistent levels, and have successfully sustained them.

Thus, the world has learnt that vesting the responsibility of the conduct of monetary policy with eminent professionals, especially the 'hawks' instead of 'doves' have yielded beneficial results. Such results can be witnessed in terms of a reduction in inflation persistence [see Siklos (1999); Kuttner and Posen (1999-2001); King (2002) and Petursson (2005)], a reduction in inflation variability [Levin, *et al.* (2004); Lin and Ye (2009)], a reduction in inflation expectations [Johnson (2002)]. Similarly see Corbo, *et al.* (2001); Neuman and Von Hagen (2002); Levin, *et al.* (2004) and Peturson (2005) for a reduction in growth variability.

In view of the above, it is imperative for the Government of Pakistan to implement the relevant clause (in the SBP Act) in letter and spirit, regarding the delegation of the conduct of the monetary policy. It should be delegated to 'hawks' rather than 'doves' with terminal qualifications in Economics, preferably with specialisation in monetary policy along with a demonstrated research excellence and international exposure. This will greatly help improve the monetary policy practices at the SBP and hence its performance, and credibility to yield desirable results.

4. THE CONFLICT OF INTEREST

There are three major areas of Pakistan's monetary policy design, where potentially the conflict of interest issue may arise at different levels from different perspectives. Its' identification and discussion is nontrivial in the sense that it does affect the performance and the credibility of the SBP in conduct of monetary policy. First, the conflict of interest that originates due to the supervisory role of the SBP. Second, the conflict of interest that arises due to the explicit role of the government representatives in the affairs of monetary policy. Third, the conflict of interest that emanates from the market affiliation of the monetary policy decision makers. In any form, the conflict of interest is not deemed desirable, as it potentially risks the appropriate conduct of monetary policy.

---

[13]A weight-conservative central banker is the one who gives more weight to inflation as compared to output in the conduct of monetary policy.

4.1. The Conflict of Interest Due to the Supervisory Role of the SBP

Since 1990s, there has been a debate on the conflict of interest arising from the duality of the monetary policy and supervisory objectives of a central bank [Whelan (2012)]. The main theme emerges from the argument that the conflict of interest between the monetary policy, and the regulation of the banking sector may lead to inflation bias [see Noia and Giorgio (1999); Lim, *et al.* (2012)]. The idea is that a central bank will remain flexible on the inflation objective if it fears that tight monetary policy may affect the profitability and soundness of the banking sector [Goodhart and Schoenmaker (1993-95)]. Although, the debate is yet to reach to a conclusion, it is important to take into account, the potential inflation bias implications for higher average inflation in Pakistan as the SBP is also responsible for financial stability i.e., "The Central Board shall, in order to secure monetary stability and soundness of the financial system…" [SBP Act (1956)]. In case of a conflict between the inflation objective and financial stability, if the SBP chose to be flexible on the former, it may render its inflation fighting credibility tenuous, and in turn any communication to contain inflation would potentially be ineffective. As a solution to this problem, Blinder (2010) suggests that a central bank should rationally balance these competing objectives and who else other than the central bank can best do the job.

Since, there are divergent views as to whether the central bank should have both the monetary policy and supervisory objectives, the practice also varies. For example, in the case of the BoE, the Prudential Regulation Authority (PRA) is a separate body with distinct objectives from the Monetary Policy Committee (MPC).[14] Consistent with public law, its regulatory decision-making is rigorous and well documented, and its Board take the decisions while comprising the governor of the BoE, the deputy governors for financial stability and markets and banking, the chief executive officer of the PRA, and the independent non-executive members of the Board. The PRA Board is involved in the most important decisions on general policy and individual cases. Like the MPC, it is also accountable to the parliament. It is important to mention that the MPC in contrast to the PRA Board constitutes nine members including the governor, the three deputy governors, the bank's chief economist, and four external members appointed directly by the Chancellor. The appointment of independent members is designed to ensure that the MPC benefits from thinking and expertise in addition to what has developed in the BoE. Therefore, by construct, the room for the conflict of interest between monetary policy and banking supervision is minimised, because in the case of the MPC all the members have the right to vote.

On the contrary, in the case of the U.S., the supervisory role of the Fed is vested with the seven members Board of Governors, whereas the Fed's monetary policy decision making authority is the FOMC, which adds five non-voting Reserve Bank presidents to the Board of Governors. Although, these presidents attend the meetings, participate in the discussions, and contribute to the Committee's assessment of the economy, and policy options, they do not have the right to vote. Therefore, effectively the BoE is more insulated from the conflict of interest issue as compared to the U.S., as in the latter case, essentially the Board of Governors take the decisions both for monetary policy as well as for regulation.

---

[14] It may be noted that PRA, although part of the BoE is the prudential regulator for deposit-takers, insurance companies and designated investment firms.

4.2. The Conflict of Interest Due to the Government Officials' Presence on the Board

Since long it is recognised that a central banker should be independent of the fiscal dominance, especially in an operational sense, but at the same time it should be strictly accountable in terms of its objectives. Most of the countries have therefore streamlined their legislative frameworks in a way that the role of the government in monetary policy making is eliminated. It is quite possible that the directions from government may undermine the monetary policy for the achievement of its short-term designs, which may be in conflict with the monetary policy objectives. In order to close the doors for such potential exercises, most of the governments through explicit legislation have discouraged the presence of government representatives in the monetary policy decision making process. In case of any such presence, the voting rights are not granted to the government official, but his (her) presence is meant for the provision of information on the fiscal side. For example, in the case of the BoE, a treasury representative is allowed to sit in the meetings to discuss policy issues, but is not allowed to vote. The purpose is for the MPC to be fully briefed about the fiscal developments.

As can be seen from Table 1, column (a), in majority of the standard monetary policy cases there are no government officials on the central banks excluding Pakistan, which does not seem to be in conformity with the relevant statutes in Pakistan. For instance, Section 9.2.C of the SBP Act (1956, p.9) clearly states that "those appointed to the Board shall have no conflict of interest with the business of the Bank". The presence of government officials on the board undermines the credibility of the central bank, and hence, the effectiveness can be achieved in monetary policy communications. The central banks in turn are not able to effectively anchor inflation expectations to maintain price stability.

In order to minimise the direct involvement of the government in central bank affairs, many countries have also designed the term structure of their boards and governors in a way that it is longer than the term of the governments per se. As can be observed from Table 1, columns (c) and (d), with a few exceptions including Pakistan, the term of the central bank's board members and governors is higher than the terms of the elected political parties in their respective countries.

Such legislative arrangement potentially frees the board members and the governor of the worries of reappointment. They are then in a better position to formulate the monetary policy more independently to achieve medium to long-term price stability, instead of pursuing government's short-term objectives that may not necessarily be beneficial for the society. It is also pertinent to mention that for better results, these countries have explicitly provisioned in their respective statutes for the accountability of their central banks (see Table 1, column (f)). If such provisions are not in place, there would be no pressure on the board and the governor to conduct monetary policy in the best possible manner to yield better results. Holding the central bank accountable for price stability is indispensable for better functioning of the SBP. It will lead to improve the inflation performance of the SBP, and will help in credibility build-up to enhance the effectiveness of monetary policy and its communication.

Table 1

Central Bank Laws and Practices: Policy Types

Country (See note below)	Government Officials on Board (a)	Final Authority (b)	Term of Members (c)	Term of Governor/ Chairman (d)	Proportion of Policy Board Appointed by Govern- ment (e)	Statutory Accountability of the Board/ Committee for Inflation Targets/ Price Stability (f)	Governor/ Chairman/and Deputy Governors (PhDs or not) (g)
Australia	1	g	5	7	1	Yes	Yes
Belgium	0	g	6	5	1	Yes	Yes
Canada	0	b(1967-) g(1967+)	3	7	12/14	Yes	Yes
France	0	g	6	U	12/13	Yes	Yes
Italy	0	g	3	3	1	Yes	Yes
Netherlands	0	g	7	7	1	Yes	Yes
Sweden	0	g	3	3	1	Yes	Yes
United Kingdom	0	g	4	5	1	Yes	Yes
Japan	0	b	4	4	1	Yes	Yes
United States	0	b	14 (N)	4	10/21	Yes	Yes
Germany	0	b	8	8	1/5	Yes	Yes
Switzerland	0	b	4	8	1	Yes	Yes
New Zealand	0	g	5	5	1	Yes	Yes
India	1	g	4	4	1	Yes	Yes
Pakistan	1	g	3	3	1	No	No

Source: Bade and Parkin (1988) and author's search from central bank's websites.

Notes: (a) number of (or their representatives) who sit on bank board.

(b) b = bank; g = government.

(c) years (N = not eligible for re-election).

(d) u = unlimited term.

(e) number represents proportion of members appointed directly or indirectly by the government .

4.3. The Conflict of Interest Due to Board Member's Market Affiliation

Given the sensitivity and demanding nature of the job, almost all the governments make sure that extremely competent and capable people are appointed on the boards of central banks. Normally, the board members including the governor are high profile specialists from academia or research organisations with demonstrated research excellence. Such appointments on one hand, allow mitigation of the conflict of interest, and on the other, ensure rational and long-lasting beneficial monetary policy decisions. The appropriate conduct of monetary policy requires an in-depth research base to be able to comprehend, understand and apply advancements in the knowledge, while taking policy decisions. Moreover, the board has to be technically sound as in some cases it has to review the performance of the bank as well as the governor. For instance in case of New Zealand, the RBNZ Act, 1989 on its page 50 Section 53 (1) binds the Board to (a) keep under constant review the performance of the bank in carrying out:

> (i) Its primary function; and (ii) its functions relating to promoting the maintenance of a sound and efficient financial system; and (iii) its other functions under this Act or any other enactment: (b) keep under constant review the performance of the Governor in discharging the responsibilities of that office: (c) keep under constant review the performance of the Governor in ensuring that the Bank achieves the policy targets agreed to with the Minister under Section 9 or Section 12(7)(b).

In case of Pakistan, however, contrary to the prevailing best practices across the globe, positions of the Board members including the Governor do not seem to be filled with eminent professionals in the field of Economics with terminal qualifications and high research profiles. Such appointments on one hand, allow a leeway for inefficient conduct of monetary policy and on the other hand, for the potential conflict of interest. For example, one of the current Board members has an explicit affiliation with a corporate financial and advisory house in the country. He has worked with various commercial banks being regulated by the SBP, hence pointing towards a potential conflict of interest issue. Similarly, another Board member has affiliation with a firm providing consultations in the realm of banking, mergers and acquisitions, corporate and financial restructuring, and Islamic modes of financing. The conduct of such activities, although in private capacity is somehow indicative of the conflict of interest, when viewed in light of the business of the SBP. Notwithstanding, the governor is not an economist, a non-specialist and is affiliated with the banking sector, which again is in clear conflict with the statutes. Such appointments to the Board, where potential conflict of interests are involved need to be avoided, in case it may adversely affect the credibility and the effective functioning of the SBP.

5. DISCLOSURES AND PUBLIC ECONOMIC INFORMATION

Given the fact that public demands transparency from public institutions and that information increase the expected utility of decision makers [Blackwell (1953); Issing (2005, p. 67)] asserts:

> A central bank should be well advised and even be legally obliged to publish all internal documents and data, in particular those that are instrumental in its monetary policy decisions and relate to its status of independence. Such obligations of accountability would then also encompass information regarding the decision making process itself, any differences of opinion, consensus agreements, a majority voting behaviour, etc.

The subsequent sub-sections assess the existing level of transparency and efficacy of public disclosures and economic information of the SBP.

5.1. Disclosure of Profiles, Minutes and Voting Records of the Board

With increasing transparency, proper disclosure is one of the increasing central banking practices. The disclosure of the profiles of board members, minutes of the meetings of the board, voting records, and in some cases even the transcripts are released for public consumption. The FeD, the BoE, RBNZ, Central Bank of the Republic of Turkey are a few glaring examples amongst others. Although, no consensus has been reached yet as to what constitute the optimal way of disclosure. Central banks today are more open and transparent, and are continuously in the quest to achieve the best possible standards.

Modern central banks share detailed profiles of monetary policy authorities as well as minute details of how they reached on certain policy decision(s) with the public. Nevertheless, exceptions such as SBP do exist where detailed profiles of the SBP's Board may not be tracked to determine, if the government has chosen eminent professionals

capable of discharging the important responsibility of the conduct of monetary policy to foster public's confidence. The SBP only display their names, photos and dates of their respective terms on the official website. Since, this opaqueness is in sharp contrast to the spirit of transparency which potentially undermines the SBP's credibility.

Like the disclosure of the detailed profiles of the board members, publication of detailed minutes of their meetings is equally important. In many countries the monetary policy decisions are taken by a committee/board. The minutes of such meetings give valuable insights into the arguments raised and the underlying considerations that drove the policy decisions [Geraats (2005)]. Advanced countries central banks such as the FeD, the BoE, Bank of Japan and ECB publish minutes to help the public develop a better understanding of the monetary policy implementation strategy, and predictability of monetary policy actions.

The SBP initiated publication of the minutes of the then MPC in November, 2009, however discontinued the practice in January 2011. The publication of the minutes has been resumed since January 2014 which might be due to encouragement by the IMF, while being in the programme in this period. The minutes of the Advisory Committee on Monetary Policy (ACMP) and the Board have been made available on the SBP's official website; however, these are as brief as one and a half pages. It does not provide sufficient information to understand the underlying motivation (justification) in favour of or against a particular monetary policy decision, hence compromises the very spirit of the publication of minutes.

As is practiced in the advanced countries, the monetary authorities go to great lengths to elaborate their thinking and decisions, which is reflected in minutes. They provide a full account of the policy discussions along with the differences in points of view. Such minutes are normally made available within a week or two after the meeting. Greater publicity of information reduces the costs of the market of being informed and helps intensify the debate about the way the policy decisions are made. It also makes it easier for the public to check the outcomes against intentions [Goodfriend (1986)].

Since there is no consensus as to what should ideally be the length of such minutes, streamlining this exercise in line with the international standard practices and acknowledging communication of minutes, and voting records as a part of the SBP's monetary policy communication strategy may be helpful. Of course that would first require a clear and well drafted, communication and disclosure policy in light of the recent research on transparency and practices of other central banks. Besides, publication of voting records could also add to the effectiveness of monetary policy communications. Further, the availability of transcripts of the important monetary policy related meetings could strengthen the credibility of the SBP.

5.2. Forecasts

Publication of the central bank forecasts gives the public and private sectors an understanding of the central bank's perception of the macroeconomic outlook, stochastic shocks, preferences, [Chortareas, *et al.* (2002)] as well as the future state of the economy. High levels of transparency in terms of information disclosure reduces information asymmetries that leads to effective conduct of the monetary policy and enhances market efficiency—because the market can better evaluate the risks and

therefore may take informed (optimal) decisions. Cornand and Heinemann (2008) noted that not only the market responds to central banks' signals but assigns it more weight than is justified by its informational content. This might be due to the superiority of the central bank information over the private sector [see Romer and Romer (2000) for empirical evidence].

Given that the public information is welfare enhancing both for the public and the private sectors [Morris and Shin (2002)], utmost effort should be made to attain the highest possible levels of precision as well as publicity. This is important not only for welfare enhancing reasons, but also for the reason that at the same time such disclosures may harm instead, if the expectations are coordinated away from the fundamentals [Amato, *et al.* (2002)]. As argued by Hayat (2014d) and can be inferred from the discussion in the current paper that Pakistan's overall monetary policy framework does not support a forward looking approach, but the SBP does publish projections of macroeconomic indicators such as GDP, CPI inflation, money supply (M2), workers' remittances, exports, imports, current account deficit, and fiscal deficit in its quarterly reports mainly covering a one year period. Some of these projections are model based forecasts such as CPI inflation, exports and imports. However, for the rest of the projections the mechanism is not clear.[15]

Other than the appearance of the projections of key variables in the quarterly reports, normally a one year projection for inflation appears in MPS. Since, a forward looking monetary policy mainly focuses on medium to long-term path of inflation, development of sophisticated DSGE models, GTAP, structural and nonlinear VAR models as well as ARDL models may be a useful exercise to start with and publish medium to long-term forecasts accordingly.

It is however important to note that due to the scarcity of quality human resources, highly equipped with sophisticated skills that can solely be dedicated to do the job (see next section for a brief discussion on this point). The SBP may not start publication of reliable medium to long-term forecasts unless serious measures are taken to retain, encourage and acquire quality human resources, such as PhDs to enhance the SBP's performance. This nevertheless is a structural issue, which requires a change in the mind-set of the SBP's top, upper and lower tier management. The SBP's job is mainly operational and its conduct does not necessarily require a full-fledged scientific research. This static approach has recently led the SBP to lose an incredible number of foreign qualified PhDs, having specialised in relevant areas to the SBP's functions, as they find the incentive structure and work environment outside the SBP, both in government and private sectors way more lucrative.

5.3. MPS and SBP's Major Publications

MPS is the major policy document issued by the SBP every six months. The first MPS appeared on the SBP website covered the period from July-December, 2005. This document gives a brief outlook of the global as well as domestic economy, and announces a monetary expansion of 13 percent to achieve the inflation and growth targets of 8 percent and 7 percent, respectively. Backward in nature, this MPS mainly discussed trends in sectors and indicators

---

[15]It is also pertinent to mention that the practice of publication of these annual projections seems to have been discontinued after the second quarterly report for the FY14.

such as monetary and credit sector, external sector, and inflation and interest rate indicators. Nevertheless, a review of the most recent MPS for the January 2015, a 25 pages document, reveals a considerable improvement in terms of coverage and extensiveness of information. It discusses, relatively at a greater length, both the global and domestic developments and their outlook. It also covers a detailed trend analysis of all the key sectors of the economy such as, monetary, fiscal, external and real sectors and informs that the board has decided to reduce the SBP policy rate by 100 basis points.

It is however surprising to note that after the lapse of almost ten years that the SBP has started publication of the MPS, its quality needs significant improvement, especially in terms of the forward looking element, substantive coherent arguments and linkages. Khizar (2015) recently criticized the MPS issued in November, 2015 stating that:

> The narrative which accompanied the decision is poor as the policy note falls short of explaining its rationale. Instead, it reads as a sycophantic review of the glorious past. Year-to-date inflation numbers and other macroeconomic statistics are quoted but with little attempt to delve into any deeper analysis of their causes and impact....The policy note was silent on the global outlook implying that the country's economy is insulated from global factors...What is the MPS take on the pressures on the currency and its linkage to interest rates? How has the decision of the US Federal Reserve to raise rates in December impacted the economy? Will this hike impact global currencies and commodity prices and what will be its consequences on Pakistan's trade balance and currency? What is the future outlook and how will the policy decision in Pakistan manage these changes? Is the stance dovish or hawkish? What is the rationale behind maintaining status quo in the policy rate? The policy note is not depicting any leaning and there is nothing to read between the lines. This may imply that the central bank is either, short of good staff to set the policy or the lack of interest of the institution in spelling out, a meaningful policy note....

Improvement might not be possible unless a reasonable resource base is attained both in terms of human resources as well as technology.[16] For example, there are only a few PhDs in the monetary policy department as well as the entire SBP, which does not allow a thorough and robust research on bits and pieces to help provide meat for the MPS. On a head count, there are only five PhDs in the monetary policy department including the director, which is less than the Economics Department of the Institute of Business Administration (IBA).[17] The total number of the PhDs in the entire SBP is not even half the number of PhDs with specialisation in Economics and Finance in the Pakistan Institute of Development Economics (PIDE). The acute scarcity of quality human resource in the SBP is also evident from both the quality and quantity of the research outputs available on its website.[18] Further, one may hardly find references of the

[16]In terms of technology, for example, in addition to the EViews, the provision of commonly used fundamental econometric research tools such as MICROFIT, SAS and GTAP, as well as referencing software like End Note may be helpful. Acquisition of the LATEX as well the training of the staff on such tools is crucial for policy research.

[17]The total number of PhDs in the Research Department of the SBP including Director is six.

[18]An independent evaluation of the quality and quantity of its policy notes, research outputs and regular publications by international specialists in the field may help the SBP to assess its level and efficacy. A similar evaluation is conducted by the Bank of Canada [see Meyer, *et al.* (2008)].

published research, either from the SBP staff or from academia in the SBP's major publications; such as Quarterly and Annual Reports to support the arguments made therein, which is a reflection of the poor quality of these publications. There is only one PhD in the SBP's relevant department—Economic Policy and Review Department (EPRD)—responsible for publication of Quarterly and Annual Reports on the state of the economy.[19] In contrast to this acute dearth of PhDs in the SBP, in the U.S., for example, there is a huge resource base even at the staff level with almost 350 PhDs—each one having a quality research capability as is reflected by their research profiles and research outputs.

Since, the monetary policy communications such as the MPS are crucial and at the same time meant to inform the public to build their confidence—that the monetary policy decisions were taken after having developed a thorough understanding of the underlying dynamics of the global and domestic economy and the linkages therein. A mere mention of the developments in the global economy, say for example in the case of Euro Area, Japan and the U.S., may not be sufficient, unless these developments and their potential impact could very well be connected to the domestic economy, and then to the goal variables. Similarly, a mere mention of the developments and outlook of the important sectors of the domestic economy may not constitute a useful central bank communication (MPS), unless properly linked together to indicate a support for the particular increase/decrease in the policy rate.

It is also important to connect more objectively (on the back of extensive impact analysis), whether the decisions taken previously were translated into the key macroeconomic indicators as well as to the goal variables such as, inflation and growth. Further, what would be the possible courses taken by the monetary authorities in case of any variations in the contemplated global and domestic circumstances as well as deviations from the targeted goal variables. Since, the MPS is essentially meant for the forthcoming six months period, the document should be able to provide some insights in a forward looking manner, while highlighting both the short and medium term projections, and the possible impact of the underlying monetary policy decision(s) over horizon(s). It should also review if the past decisions have been able to yield the desired results in terms of the goal variables, if not, why not and what steps have been taken to make the policy more effective?

6. CONCLUSION

There is a wide agreement that increased transparency in monetary policy decision making processes and communication has considerably enhanced central banks' performances across the globe. Today's central banks are in a much better position to anchor inflation expectations. This paper critically assesses the state of Pakistan's monetary policy transformation, in terms of transparency and openness, especially in terms of statutory objectives, monetary policy mandate, conflicts of interest, disclosures, and dissemination of effective public economic information.

---

[19]It is important to highlight that EPRD hardly does any research-based analysis or review of existing economic policies as is envisaged by its name. Instead an ex-post backward-looking trend-based analysis of various sectors of the economy is provided in its Quarterly and Annual reports.

The assessment indicates that the SBP Act, 1956 does not provide any effective guiding framework in terms of monetary policy objectives and mandate. The inflation and growth targets setting strategy of the government is intrinsically flawed, leading the economy away from the path of price stability, which is considered crucial for a sustainable economic growth. It does not allow appropriate benchmarks for the monetary policy evaluation and accountability. Further, the Act does not put an explicit mechanism to insulate against the conflict of interest issues, originating from the dual supervisory and monetary policy role of the SBP, market affiliations of the Members of the Board and the Governor as well as fiscal dominance.

If the SBP has to adapt to the needs of the modern central banking practices, serious and constant institutional capacity and credibility building measures will have to be taken. This, in the first place requires a change in the static culture of the SBP. Implanting qualified human resources at the top, middle and lower tier managerial levels could play an instrumental role towards the organisational change.

REFERENCES

Abbas, H., S. Beg, and M. A. Choudhary (2015) Inflation Expectations and Economic Perceptions in a Developing Country Setting. Retrieved from: http://dsqx. sbp.org.pk/ccs/survey%20information/paper.pdf

Ahmed, A. M. and W. S. Malik (2011) The Economics of Inflation, Issues in the Design of Monetary Policy Rules, and Monetary Policy Reaction Function in Pakistan. *The Lahore Journal of Economics* 16, 215–232.

Alesina, A. and V. Grilli (1991) The European Central Bank: Reshaping Monetary Politics in Europe. (CEPR Discussion Paper 563).

Amato, J. D., S. Morris, and H. S. Shin (2002) Communication and Monetary Policy. *Oxford Review of Economic Policy* 18:4, 495–503.

Apostolos, A. and Z. Koustas (1998) Empirical Evidence on the Long-run Neutrality of Money. *Journal of Money, Credit and Banking* 1–25.

Bailey, M. J. (1956) The Weight Welfare Cost of Inflationary Finance. *Journal of Political Economy* 64, 98–110.

Barro, R. J. (1995) Inflation and Economic Growth. (NBER Working Paper No. 5326).

Barro, R. J. and D. B. Gordon (1983a) A Positive Theory of Monetary Policy in a Natural Rate Model. *Journal of Political Economy* 91, 589–610.

Barro, R. J. and D. B. Gordon (1983b) Rules, Discretion and Reputation in a Model of Monetary Policy. *Journal of Monetary Economics* 12, 101–121.

Barro, R. J. (1996) Determinants of Economic Growth: A Cross-country Empirical Study. (NBER Working Paper No. 5698).

Blackwell, D. (1953) Equivalent Comparisons of Experiments. *Annals of Mathematical Statistics* 24:2, 265–72.

Blanchard, O., G. Dell Ariccia, and P. Mauro (2010) Rethinking Macroeconomic Policy. *Journal of Money Credit and Baking* 42, 199–215.

Blinder, A. S. (2010) How Central Should the Central Bank Be? *Journal of Economic Literature* 48:1, 123–133.

Blinder, A. S., M. Ehrmann, M. Fratzscher, and J. D. Haan (2008) Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence. (CEPS Working Paper No. 161).

Briault, C. B. (1995) The Costs of Inflation. *Bank of England, Quarterly Bulletin* 33–45.

Bullard, J. (1999) Testing the Long-run Neutrality of Money: Lessons from the Recent Research. *Federal Reserve Bank of St. Louis Review* 81, 57–77.

Canzoneri, M. B. (1985) Monetary Policy Games and the Role of Private Information. *American Economic Review* 75:4, 1056–1070.

Chortareas, G., D. Stasvage, and G. Sterne (2002) Does it Pay to be Transparent? International Evidence from Central Bank Forecasts. Retrieved from: https://research.stlouisfed.org/publications/review/02/07/99-118Chortareas.pdf

Corbo, V., O. Landerretche, and K. Schmidt-Hebbel (2001) Assessing Inflation Targeting after a Decade of World Experience. *International Journal of Finance and Economics* 6, 343–368.

Cornand, C. and F. Heinemann (2008) Optimal Degree of Public Information Dissemination. *The Economic Journal* 118, 718–742.

Cukierman, A. (1992) *Central Bank Strategy, Credibility and Independence: Theory and Evidence.* Cambridge: MIT Press.

Cukierman, A. (2000) The Inflation Bias Result Revisited. Berglas School of Economics, Tel-Aviv University.

De Gregorio, J. (1992) The Effects of Inflation on Economic Growth. *European Economic Review* 36:2-3, 417–424.

De Gregorio, J. (1993) Inflation, Taxation and Long-Run Growth. *Journal of Monetary Economics* 31, 271–298.

Debelle, G. (1999) Inflation Targeting in Practice. (Research Discussion Paper 1999-08, Economic Analysis Department Reserve Bank of Australia).

Eijffinger, S. C. W. and P. M. Geraats (2006) How Transparent are Central Banks? *European Journal of Political Economy* 22:1, 1–21.

English, W. B. (1996) Inflation and Financial Sector Size. (Finance and Economics Discussion Series No. 96-16, Federal Reserve Board, Washington).

Fischer, and Modigliani (1975) Towards an Understanding of the Real Effects and Costs of Inflation. *Review of World Economics* 114:4, 810–833.

Fischer, S. (1981) Towards an Understanding of the Costs of Inflation: II. (Carnegie-Rochester Conferences Series on Public Policy, Amsterdam, North Holland). 15.

Fischer, S. (1993) The Role of Macroeconomic Factors in Growth. *Journal of Monetary Economics* 32:3, 485–511.

Flood, R. and P. Isard (1989) Monetary Policy Strategies. (IMF Working Paper, WP/88/88). 612–632.

Friedman, M. (1968) The Role of Monetary Policy. *The American Economic Review* 58, 1–17.

Fry, M., D. Julius, L. Mahadeva, S. Roger, and G. Sterne (2000) Key Issues in the Choice of Monetary Policy Framework. In L. Mahadeva and G. Sterne (eds.) Monetary Policy Framework in a Global Context. Routledge, London, pp. 1–216.

Garfinkel, M. R. and S. Oh. (1993) Strategic Discipline in Monetary Policy with Private Information: Optimal Targeting Horizons. *American Economic Review* 83, 99–117.

Geraats, P. M. (2002) Central Bank Transparency. *Economic Journal* 112:483, 532–65.

Geraats, P. M. (2005) Transparency and Reputation: The Publication of Central Bank Forecasts. *Topics in Macroeconomics* 5:1, 1–26.

Geraats, P. M. (2006) Transparency of Monetary Policy: Theory and Practice. *CESifo Economic Studies* 52:1, 111–52.

Geraats, P. M. (2007) The Mystique of Central Bank Speak. *International Journal of Central Banking* 3:1, 37–80.

Gerlach-Kristen, P. (2004) Is the MPC's Voting Record Informative about Future UK Monetary Policy? *Scandinavian Journal of Economics* 106:2, 299–313.

Goodfriend, M. (1985) Monetary Mystique: Secrecy and Central Banking. (Federal Reserve Bank of Richmond Working Paper 85-7).

Goodfriend, M. (1986) Monetary Mystique: Secrecy and Central Banking. *Journal of Monetary Economics* 17:1, 63–92.

Goodhart, C. and D. Schoenmaker (1993) Institutional Separation between Supervisory and Monetary Agencies. London School of Economics Financial Markets Group, London.(Special Paper No. 52).

Goodhart, C. and D. Schoenmaker (1995) Should Functions of Monetary Policy and Banking Supervision be Separated? *Oxford Economic Papers*, *New Series* 47:4, 539–560.

Groshen, E. L. and M. E. Schweitzer (1996) The Effects of Inflation on Wage Adjustments in Firm-Level Data: Grease or Sand? (Federal Reserve Bank of New York, Staff Reports, No. 9).

Hatch, N., A. D. Haldane, and H. Bakhshi (1998) Some Costs and Benefits of Price Stability in the United Kingdom. (Working Paper No. 78).

Havranek, T. and M. Rusnak (2013) Transmission Lags of Monetary Policy: A Meta-analysis. *International Journal of Central Banking* 3:4, 39–75.

Hayat, Z. (2014a) Evaluating the Performance of the Typical Discretionary Monetary Policy Strategy of Pakistan: A Well-balanced Monetary Policy Approach. In Z. Hayat *An Empirical Assessment of the Typical Discretionary Monetary Policy Strategy of Pakistan Using Novel Discretion and Inflation Bias Indicators.* Chapter 3, 78–108. Retrieved from: http://mro.massey.ac.nz/handle/10179/6270

Hayat, Z. (2014b) On the Effectiveness of the Inflationary Bias of the Discretionary Monetary Policy Strategy of Pakistan. In Z. Hayat *An Empirical Assessment of the Typical Discretionary Monetary Policy Strategy of Pakistan Using Novel Discretion and Inflation Bias Indicators*, Chapter 4, 109–136. Retrieved from: http://mro.massey.ac.nz/handle/10179/6270

Hayat, Z. (2014c) On the Relevance and Relative-robustness of Stabilisation and Non-stabilisation Sources of Inflation Bias. In Z. Hayat *An Empirical Assessment of the Typical Discretionary Monetary Policy Strategy of Pakistan Using Novel Discretion and Inflation Bias Indicators*, Chapter 5, 137–176. Retrieved from: http://mro.massey.ac.nz/handle/10179/6270

Hayat, Z. (2014d) Is Discretion Beneficial? Evidence from the Typical Discretionary Monetary Policy Strategy of Pakistan. In Z. Hayat *An Empirical Assessment of the Typical Discretionary Monetary Policy Strategy of Pakistan Using Novel Discretion and Inflation Bias Indicators*, Chapter 6, 177–206. Retrieved from: http://mro.massey.ac.nz/handle/10179/6270

Inkler, B. (2002) Which Kind of Transparency? On the Need for Effective Communication in Monetary Policy-making. *IfoStudien* 48:3, 401–427.

Ireland, P. N. (1999) Does the Time-inconsistency Problem Explain the Behaviour of Inflation in the United States. *Journal of Monetary Economics* 44, 279–291.

Issing, O. (2005) Communication, Transparency, Accountability: Monetary Policy in the Twenty-first Century. *Federal Reserve Bank of St. Louis Review* 87:2, 65–83.

Khan, M. S. and A. S. Senhadji (2001) Threshold Effects in the Relationship between Inflation and Growth. (IMF Staff Papers 48, 1-21).

Khizar, A. (2015) MPS: There's Nothing to Read between the Lines. *Business Recorder*. Retrieved from: http://www.brecorder.com/top-stories/0:/1249201:mps-theres-nothing-to-read-between-the-lines/?date=2015-11-23

King, M. (2002) The Inflation Target Ten Years on *Bank of England Quarterly Bulletin* (Winter).

Kuttner, K. N. and A. S. Posen (1999) Does Talk Matter After All? Inflation Targeting and Central Bank Behaviour. (Federal Reserve Bank of New York Staff Report No. 88).

Kuttner, K. N. and A. S. Posen (2001) Beyond Bipolar: A Three Dimensional Assessment of Monetary Frameworks. *International Journal of Finance and Economics* 6:4.

Kydland, F. E. and E. C. Prescott (1977) Rules Rather than Discretion: The Inconsistency of Optimal Plans. *Journal of Political Economy* 85, 473–492.

Levin, A. T., F. M. Natalucci, and J. M. Piger (2004) The Macroeconomic Effects of Inflation Targeting. (Economic Research, Federal Reserve Bank of St. Louis).

Levine, R. and D. Renelt (1992) A Sensitivity Analysis of Cross-country Growth Regressions. *American Economic Review* 82, 942–963.

Lima, D., I. Lazopoulos, and V. Gabriel (2012) Monetary Policy and Banking Supervision: Is there a Conflict of Interest? Retrieved from: https://www.surrey.ac.uk/economics/files/dpaperspdf/Conflict%20interest_Dec%202012.pdf

Lin, S. and H. Ye (2009) Does Inflation Targeting Make a Difference in Developing Countries*? Journal of Development Economics* 89, 118–123.

Lohman, S. (1992) The Optimal Degree of Commitment: Credibility versus Flexibility. *American Economic Review* 273–286.

Lucas, R. E. (1995) *Monetary Neutrality*. Prize Lecture, University of Chicago, USA.

Malik, W. S. and M. Din (2008) Monetary Policy Transparency in Pakistan: An Independent Analysis. (PIDE Working Papers 2008:44).

Marcus, G. (2014) The Importance of Central Bank Communication. Retrieved from: http://www.bis.org/review/r140314d.htm.

Meyer, L., M. Eichenbaum, D. Gale, A. Levin, and J. McAndrews (2008) External Review of Economic Research Activities at the Bank of Canada. Retrieved from: http://www.bankofcanada.ca/wp-content/uploads/2011/05/ext_review.pdf

Mishkin, F. S. (1997) Strategies for Controlling Inflation. (NBER Working Paper No. 6122).

Mishkin, F. S. (2006) Monetary Policy Strategy: How did we get here? (NBER Working Paper No. 12515).

Moris, S. and H. S. Shin (2002) Social Value of Public Information. *American Economic Review* 52:5, 1522–34.

Neumann, M. J. and H. Von (2002) Does Inflation Targeting Matter? 85, 127–148. (Federal Reserve Bank of St. Louis Review).

Noia, C. D. and G. D. Giorgio (1999) Should Banking Supervision and Monetary Policy Tasks be given to Different Agencies? Retrieved from: http://www.econ. upf.edu/docs/papers/downloads/411.pdf

Omer, M. and O. M. Saqib (2009) Monetary Targeting in Pakistan: A Skeptical Note. *SBP Research Bulletin* 5:1.

Person, T. and G. Tabellini (1990) *Macroeconomic Policy, Credibility and Politics*. London: Harwood Economic Publishers.

Person, T. and G. Tabellini (1993) Designing Institutions for Monetary Stability. (Carnegie-Rochester Conference Series on Public Policy 39). 53–89.

Petursson, T. G. (2005) Inflation Targeting and its Effects on Macroeconomic Performance. (The European Money and Finance Forum).

Qayyum, A. (2008) Does Monetary Policy Play Effective Role in Controlling Inflation in Pakistan. (MPRA Paper No. 13080).

Romer, C. D. and D. H. Romer (1997) Institutions for Monetary Stability. Retrieved from http://www.nber.org/chapters/c8888.pdf.

Romer, C. D. and D. H. Romer (2000) Federal Reserve Information and the Behaviour of Interest Rates. *American Economic Review* 90:3, 429–57.

Romer, D. and C. Romer (2002) The Evolution of Economic Understanding and Postwar Stabilisation Policy. (Federal Reserve Bank of Kansas City Symposium on Rethinking Stabilisation Policy).11–78.

Sarel, M. (1996) Nonlinear Effects of Inflation on Economic Growth.(IMF Staff Papers).43:1.

SBP Act (1956) State Bank of Pakistan Act, 1956. Retrieved from: http://www.sbp.org. pk/about/sbpact/SBP_ACT_1956.pdf

Siklos, P. L. (1999) Inflation Target Design: Changing Inflation Performance and Persistence in Industrial Countries. *Federal Reserve Bank of St. Louis Review* 81:2, 46–58.

Surico, P. (2008) Measuring the Time Inconsistency of US Monetary Policy. *Economica* 75, 22–38.

Svensson, L. E. O. (1997a) Optimal Inflation Targets, Conservative Central Banks, and Linear Inflation Contracts. *American Economic Review* 87, 98–114.

Swanson, E. T. (2004) Federal Reserve Transparency and Financial Market Forecasts of Short-Term Interest Rates. (Federal Reserve Board Finance and Economic Discussion Series 2004-6).

Walsh, C. (1995b) Is New Zealand's Reserve Bank Act of 1989 an Optimal Central Bank Contract? *Journal of Money, Credit and Banking* 27, 1179–1191.

Walsh, C. E. (1993b) When should Central Bankers be Fired? (University of California, Santa Cruz, Ca95064, USA).

Weber, A. (1994) Testing Long-run Neutrality: Empirical Evidence for G7 Countries with Special Emphasis on Germany. Carnegie-Rochester Conference Series on Public Policy 67–117.

Winkler, B. (2002) Which Kind of Transparency? On the Need for Effective Communication in Monetary Policy-making. *IfoStudien* 48:3, 401–427.

Pakistan's Bilateral Trade under MFN and SAFTA: Do Institutional and Non-Institutional Arrangements Matter?

NASIR IQBAL and SAIMA NAWAZ

The purpose of this study is two fold. First, to estimate the impact of institutional and non-institutional arrangements on bilateral trade, and second to analyse the impact of SAFTA on bilateral trade in the short as well as in the long run. The empirical analysis which is based on the panel of eight South Asian countries, comprising data over the period i.e. 1975–2013 is conducted using fixed effects model along with Pooled Mean-Group (PMG) estimator for estimating the short and long-run relationships. The analysis has shown that trade agreements including South Asian Free Trade Area (SAFTA) and the Most Favoured Nation (MFN) are not effective in promoting trade, due to low institutional quality and stringent non-institutional arrangements, including high tariff along with low physical infrastructure. Further empirical analysis has shown that both SAFTA and MFN can only contribute to bilateral trade significantly, if complemented by institutional framework. As a policy lesson, to improve the trade ties between India and Pakistan, improvement in physical as well as soft infrastructure is required. Any trade agreements between the two, including MFN can only be effective, when it is supported by a well-defined and enforced institutional framework that ensure the implementation of policy reforms needed to reduce tariff rate and remove non-tariff barriers.

1. INTRODUCTION

Bilateral trade between Pakistan and India, the two largest economies in South Asia, has always remained low and has faced a series of tariff and non-tariff barriers. The volume of bilateral trade ranges between 2 to 3 percent of each country's total trade, and is concentrated in a few commodities. Neither Pakistan nor India is generally considered as an open economy. Both countries have among the most restrictive trade regimes in the world. The Trade Tariff Restrictiveness Index (TTRI) shows that the average tariff rates are higher in Pakistan and India in comparison to other regions [Looi Kee, Nicita, and Olarreaga (2012)]. There has also been no significant improvement in either country's

Nasir Iqbal <nasir@pide.org.pk> is a Director Research, Benazir Income Support Programme (BISP), Islamabad. Saima Nawaz <saima.nawaz@comsats.edu.pk> is an Assistant Professor, COMSATS Institute of Information Technology, Islamabad.

logistics performance index over the last eight years [Arvis, *et al.* (2014)]. Bilateral trade is constrained by soft and physical poor infrastructure.

Over the last two decades, both countries have made various moves towards improving economic relations with a vision to enhance peace and stability in the region [De, Raihan, and Ghani (2013)]. In 1995, India granted the MFN status to Pakistan, but the latter did not reciprocate. Moreover in 2011, Pakistan decided to extend the MFN status to India, with an aim to be effective from January 1, 2013. In response, India brought down its SAFTA's "sensitive list" to 100 tariff lines at six-digit level by April 2013. By December 2012, this target was missed and Pakistan failed to grant the MFN status to India. The process has been delayed due to concerns expressed by different trade lobbies, and also an incident across the Line of Control (LoC) further hampered the process. The SAFTA has likewise failed to live up to the expectations. In 2004, the two countries signed the agreement, along with six other South Asian nations, but there has been no substantial improvement in the trading environment and no increase occurred in bilateral trade either.

On the other hand, literature has shown that there is a huge potential to expand bilateral trade between India and Pakistan [Husain (2013); Nabi and Nasim (2001); Pasha and Imran (2012)]. It is evident that Pakistan and India's economies are highly complementary, and are becoming more so over time. The two countries also share a common border, history and cultural similarities. Khan (2009) stated that trade between Pakistan and India is unnaturally small, but the scope for gains from increased trade is correspondingly large. He also argued that "improving economic ties may help to resolve the larger political issues that have bedevilled India-Pakistan overall relations". Yet despite all this, trade ties between the two largest economies in South Asia remain weak.

It is to be argued as to what are the underlying factors that are restricting trade between the two countries? And why have attempts to increase trade, including SAFTA, been ineffective? In this paper, it is also argued that institutional and non-institutional arrangements are crucial in explaining the ineffectiveness of trade reforms, including SAFTA, in boosting bilateral trade. Institutional arrangements such as documentation process and governance structure are poorly defined that create rent-seeking opportunities which hamper trade between the two countries. It is also noted that the procedural requirements are very high in both Pakistan and India as compared to other regions. For example, nine documents are required to complete the export process and eight for imports in Pakistan. While, only four documents are required for import or exports in the Organisation for Economic Co-operation and Development (OECD), the North American Free Trade Agreement (NAFTA) and the European Union (EU) regions. Similar situation exists for India. On the other hand, 22 days are required to complete the export process in Pakistan, while the same is completed in 10 days in the EU and OECD countries [WB (2015)]. The quality of institutions is also very poor in these countries as compared to others regions of the world. Non-institutional factors such as trade facilitation measures and physical infrastructure act as binding constraints in promoting trade. Trade facilitation measures are very stringent and poorly managed in both countries than other regions in the world. Pakistan and India have been placed in the group of partial performer countries, which include countries with logistics constraints—most often seen in low and middle income countries. According to the World Bank, Pakistan is ranked 72 among 166 countries in the Logistic Performance Index (LPI) 2014, which evaluates

logistics performance on the six dimensions of logistic performance. Pakistan's rank is much below than Malaysia (25), China (28), Thailand (35) and Indonesia (53). Germany holds top position in the logistic performance [Arvis, *et al.* (2014)]. It is also argued that trade reform policies, especially SAFTA and MFN may not be effective in the short run as it is a long term phenomenon that requires extensive reforms.

The overall objective of this paper is to investigate the impact of institutional and non-institutional arrangements on bilateral trade. For this purpose, the study incorporates the role of democratic institutions and non-tariff barriers in standard gravity model and investigates the impact of SAFTA on bilateral trade in the short as well as in the long run. The study contributes to literature on two counts: first, it extends the standard gravity model by incorporating the role of democratic institutions and non-tariff barriers in explaining bilateral trade; and second it estimates the impact of SAFTA in the short and long run. The analysis provides policy framework for improving trade ties between Pakistan and India to reap the potential trade benefits.

The rest of the paper is structured as follows: literature review is presented in Section 2; Section 3 discusses the stylised facts regarding bilateral trade; Section 4 elaborates the data and methodology; empirical results and discussion are presented in Section 5 and the last section concludes the discussion with policy recommendations.

2. BILATERAL TRADE: STYLISED FACTS

This section depicts some stylised facts regarding Pakistan's trade with India in contrast with other regions and countries. Trade remains very low in the South Asian Association for Regional Cooperation (SAARC) region even after signing the SAFTA in 2004. The SAARC region remains one of the least integrated regions in the world. The overall trade share remains between 3 to 5 percent of the total trade. The largest trade share observed with the Middle Eastern countries (30.5 percent of total trade) followed by Europe (18 percent of total trade) and NAFTA (9 percent of total trade). Table 1 indicates that trade with the SAARC countries remains substantially low over the last decade. More importantly, major trading partner in the SAARC region are Bangladesh and India.

Table 1

Regional Trade Comparison (Share in Total Trade [Imports + Exports])

Region	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
NAFTA	16.0	16.9	14.6	14.8	14.2	10.5	11.7	10.4	9.6	8.6	8.6
Europe	24.6	24.2	24.9	23.4	21.8	20.7	21.6	17.8	17.3	16.1	17.7
Middle East	25.9	24.6	24.4	26.6	27.1	31.5	28.4	29.5	30.4	32.3	30.5
SAARC	2.6	3.3	3.5	4.3	4.3	4.5	4.1	4.9	4.8	4.5	5.0
Bangladesh	0.8	0.8	0.7	0.7	0.7	0.8	0.9	1.2	1.5	1.1	1.1
India	1.2	2.0	2.2	3.1	3.1	3.3	2.7	3.1	2.7	2.8	3.3
Sri Lanka	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6

Source: UN (2015).

Pakistan's trade with India ranges between 2 to 3 percent of the total trade. There is no substantial increase in trade between Pakistan and India even after SAFTA arrangement. Pakistan, the sixth most populous country, and India the second most populous are the two largest economies in South Asia. However, trade volume between

the two countries remains very low, even with a huge potential. Figure 1 shows that bilateral trade, despite various trade agreements, remains low. Imports from India range from 3.7 percent in 2006 to 4.3 percent in 2013 of the total imports. On the other hand, exports range from 1.9 percent to 1.6 percent of the total exports during the same period.

Fig. 1. Pakistan's Trade with India as Percent of Total Trade
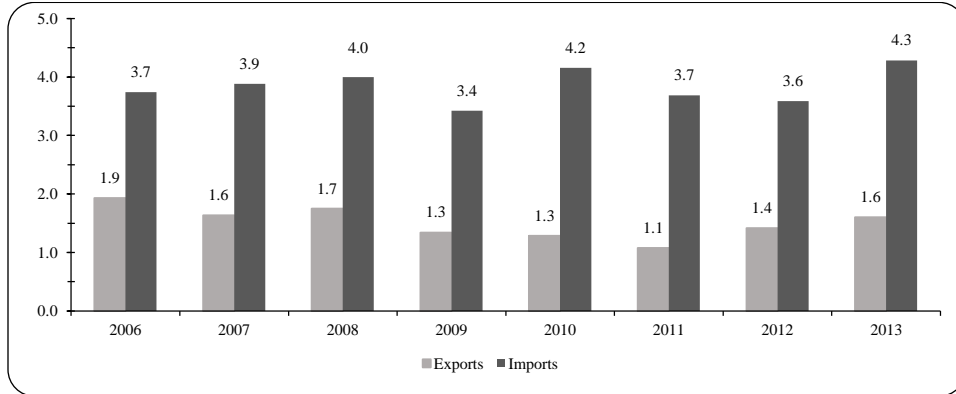
Source: UN (2015).

The composition of imports from India to Pakistan has been primarily limited to only 15 commodities, which accounted for around 90 percent of the total imports from India to Pakistan in 2013. The composition of exports from Pakistan to India has been limited to a few products. Top 15 commodities constitute 93 percent of the total exports to India [UN (2015)].

Why do both countries fail to reap possible trade benefits? Various factors held responsible including tariff regime, trade facilitation measures, non-tariff barriers, and institutional, and political bottlenecks. It is evident that the closed trade regime restricts trade between the two economies. Pakistan and India have ranked among the most restrictive trade regime countries. TTRI shows that the average tariff rates are higher in Pakistan and India as compared to other regions such as NAFTA, EU, and OECD [Looi Kee, *et al.* (2012)].

Fig. 2. TTRI—All Good (Average 2006-09)
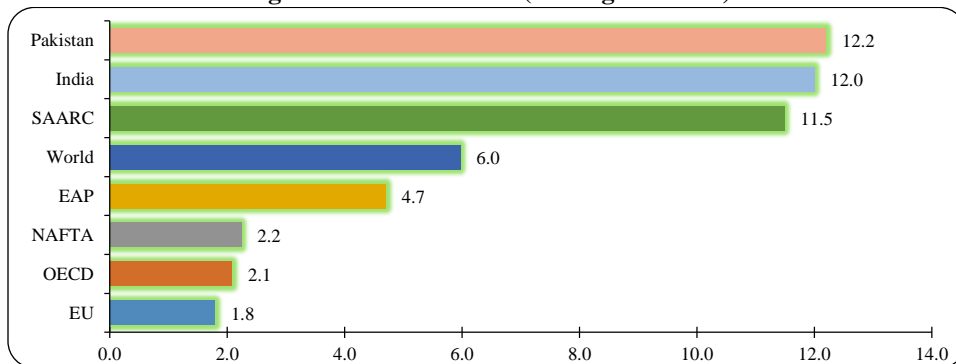
Source: Looi Kee, *et al*. (2012).

Despite some decline in tariff for various commodity groups, non-tariff barriers significantly hamper trade between the two countries. These measures include physical infrastructure, technology, procedural requirements and institutional framework. Non-tariff measures or trade facilitation measures act as binding constraints in promoting trade. Trade facilitation measures are very stringent and poorly managed in both countries in contrast to other regions in the world. Statistics at the disaggregate level depict that Pakistan shows poor logistic performance on competence and quality of logistic services, such as transport operators and custom brokers (ranked 75), ability to track and trace consignments (ranked 86), and timeliness of shipments in reaching destination within the scheduled or expected delivery time (ranked 123) in 2014. India is ranked 54 among 166 countries in the LPI of 2014. Disaggregated analysis reveals that border agencies of India show poor logistic performance on efficiency of the clearance process, including custom such as speed, simplicity, and predictability of formalities (ranked 65), and quality of trade and transport related infrastructure (ranked 58) [Arvis, *et al.* (2014)].

Table 2

LPI 2014 (Ranking)

Countries	LPI	Custom	Infrastructure	International Shipments	Logistics Quality and Competence	Tracking and Tracing	Timeliness
Germany	1	2	1	4	3	1	4
UK	4	5	6	12	5	5	7
Singapore	5	3	2	6	8	11	9
USA	9	16	5	26	7	2	14
Malaysia	25	27	26	10	32	23	31
China	28	38	23	22	35	29	36
Thailand	35	36	30	39	38	33	29
Indonesia	53	55	56	74	41	58	50
India	54	65	58	44	52	57	51
Pakistan	72	58	69	56	75	86	123
Maldives	82	49	82	72	74	92	148
Sri Lanka	89	84	126	115	66	85	85
Bangladesh	108	138	138	80	93	122	75

Source: Arvis, *et al.* (2014).

There is no significant improvement in the LPI over the last eight years for Pakistan and India. Figure 3 shows the trend of logistic performance score over the period i.e. 2007–2014 for Pakistan and India. Pakistan's LPI score ranges from 2.6 in 2007 to 2.8 in 2014. Similarly, India's score remains stagnant at 3.1 over the last eight years. In crux, bilateral trade is constrained due to poor conditions of soft and physical infrastructure.

Fig. 3. Trend in LPI 2007–2014 (Score)
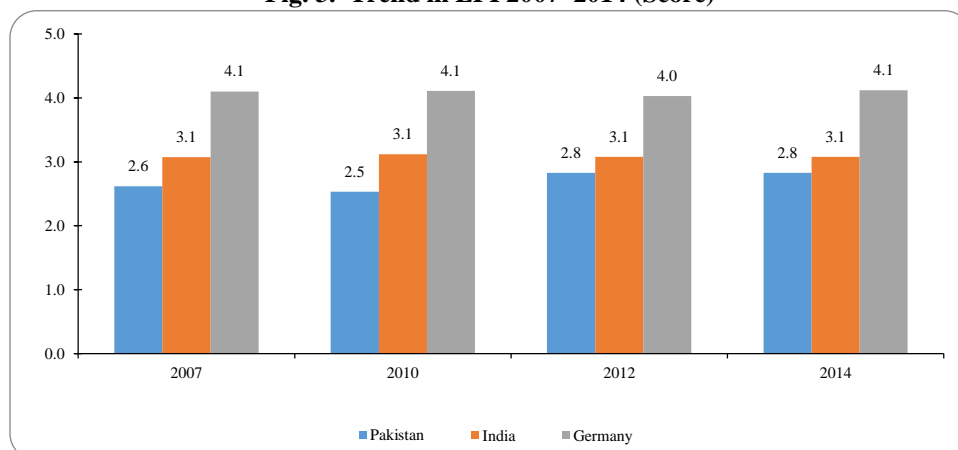
Table 3 provides a comparison of the procedural requirements of Pakistan and India with other regions in the world. The table also shows that the procedural requirements are very high in both Pakistan and India, as compared to other regions. For example, nine documents are required to complete the export process and eight are needed for imports in Pakistan. While, only four documents are required for import or exports in the OECD, NAFTA and EU regions. Similar situation exists for India. On the other hand, 22 days are required to complete export process in Pakistan, while the same process is completed in 10 days in the EU and OECD countries.

Table 3

Documents/Days Required to Complete Imports/Exports Process

Indicators	Pakistan	India	EAP	OECD	NAFTA	EU	World
No. of documents for export	9	8	7	4	4	4	7
Days for export	22	17	25	10	9	10	24
Cost to export (US$ per container)	611	945	969	1089	1377	1032	1386
No. of documents for import	8	9	7	5	5	4	7
Days for import	18	20	27	11	11	10	27
Cost to import (US$ per container)	680	960	1020	1145	1675	1095	1602

This section clearly indicates that various institutional and non-institutional factors restrict bilateral trade between India and Pakistan. High tariff rates coupled with low quality of trade facilitation measures significantly hamper the bilateral trade. Low quality of trade facilitation measures, poor physical infrastructure, and weak institutional framework held responsible for low trade between the two countries. Improvement in the physical as well as soft infrastructure is required for better trade ties between India and Pakistan. Any trade agreements between the two countries, including MFN that substantially reduce the tariff and non-tariff barriers can substantially increase the volume of trade. In the next section, the methodological framework is developed to empirically quantify the impact of these measures on trade.

3. LITERATURE REVIEW

This section provides an overview of the existing literature on implications of free trade agreements with special focus on SAFTA and MFN. Various attempts have been made to quantify welfare gains and trade creations under these arrangements. Initial studies by Govindan (1994) and Pigato (1997) highlight that intra-regional trade can benefit more to small countries than India in the region. Qamar (2005) further extends this by saying that Pakistan not only can get benefit by accessing a big market for its exports, but also can save significantly, while substituting its expensive imports from the rest of the world to imports from India under the MFN status. Shaikh and Rahpoto (2009) show that under the SAFTA arrangement, Pakistan can enjoy consumer surplus in exports of the products like food items, cotton made garments, dates and leather. Using Computable General Equilibrium (CGE), Shaikh, Syed, Shah, and Shah (2012) also found similar results. Raihan (2012) too found a positive welfare gain under the MFN status given to India, and this gain multiplied under the scenario of SAFTA. Additionally, it also affects the overall volume of regional and bilateral trade between India and Pakistan, but the increase in imports from India is greater than the volume of exports from Pakistan [Raihan and De (2013)]. Nabi and Nasim (2001) argued that trading volume will increase threefold, if both countries give the MFN status to each other.

Despite these predictions, why is the actual trade very low?[1] Literature shows that bilateral trade is affected adversely due to non-tariff barriers. Bouët (2008) and Bouët, Mevel, and Thomas (2010) have shown that SAFTA members will experience a gain with the inclusion of sensitive products, and their exemption will limit the trade gain for the middle income countries. Taneja and Kalita (2011) exhibit that even after trade liberalisation, Pakistan does not enjoy any competitive advantage, as most of the commodities in export baskets are included in the sensitive list, and the government of India has prohibited these under the SAFTA regime. Based on Revealed Comparative Advantage (RCA) index, this study shows that Indian economy does not face any threat from Pakistan's imports. Gopalan, Malik, and Reinert (2013) have analysed the effect of imports of sensitive items on output, consumer surplus, revenue generated from tariff, and net welfare under an imperfect substitute framework between Pakistan and India. Using General Algebraic Modeling System (GAMS), this study estimates a welfare gain of few millions $US on each sector, but the impact of reduced output due to increased imports from India will negatively affect the domestic industries of Pakistan. This concludes that imports from India would specifically affect the output of cloth sector, the footwear sector, leather, pharmaceuticals and tobacco on a large scale.[2]

Some studies have also found that trade under the SAFTA/MFN are not attractive in the region. Baysan, Panagariya, and Pitigala (2006) identify that the trade under the SAFTA agreement is unattractive, as the countries member of SAFTA are relatively small as compared to the world economies. Further, the high levels of restriction among the SAFTA members would result in trade diversion and countries which would be worst off, as the member countries, currently trading outside the SAFTA region earn more. Even after providing the MFN status to India, welfare gain will be negative. It is due to the items on the Indian's imports negative list, as 90 percent of these items belong to

---

[1]See Section 2 for more detail on trading trend between Pakistan and India.
[2]Various other studies have also found similar results [Nabi and Nasim (2001); Taneja (2007)].

manufacturing sector [Raihan and De (2013)]. De, *et al.* (2013) also conclude that the welfare gains due to the MFN are small, and extended economic cooperation between both countries is needed to receive maximum benefits. In short, the MFN scenario includes the imports at reduced prices, and serves as a source of cheap imports from India in addition to the assumed peace in the region.

Despite the fact that the world welfare is increasing continuously due to bilateral trade, transfer of technology, and improved production, the distribution of these welfare gains is asymmetric. However, the revenue gain from tariff may turn into a loss due to the SAFTA agreement that requires free trade regime. It shows the cost efficient exporter benefits more than the less cost efficient exporter, and ultimately the less efficient importer stand to lose in the end. Additionally, the reason behind less increase in the exports to India is the unavailability of diversified items available for exports within the Pakistani exports basket. Despite the indications of potential gains from bilateral trade, India-Pakistan economies face constrain due to a continuous political rivalry between them. Thus, Pakistan and India can gain from SAFTA, if their bilateral political differences are solved, and that would help to achieve integration in the market for the rest of the members too. [Kugelman (2013)]. Further, improving the economic reforms of the county and placing them in line with the conditions of SAFTA, Pakistan can gain from the trade liberalisation [Naqvi and Schuler (2007)]. This overview indicates that there is a possibility of "trade creation" under the SAFTA/MFN, especially for those items that are not imported due to high customer duty, or are imported illegally. This study, thus, enhances the understating by focusing on the institutional and non-institutional arrangements.

4. MODELING FRAMEWORK, DATA AND ESTIMATION METHODOLOGY

4.1. Modeling Framework

The gravity model is a widely used tool to estimate the bilateral flows between member countries. It relates the bilateral trade flows to the Gross Domestic Product (GDP), distance, border and other socio-political factors that affect the trade patterns. The standard gravity model suggests that trade among member countries is positively related to the national income and negatively related to the distance—a proxy for transportation and information costs. Tinbergen (1962) in his first empirical attempt made international trade flow, a function of the trading countries gross national products, and three potential resistance variables; distance between the trading partners, a dummy variable for adjacent countries, and dummy variable for common membership in a preferential trade agreement (these all are proxies for transportation cost).These are used to reflect the hypothesis that transportation cost increases with distance, which are lower for the adjacent countries and higher for the landlocked countries/islands. A number of controls are included in the gravity model such as country size, common border, common language, and infrastructure etc.[3] The proposed study also incorporates democratic institutions to

---

[3]Theoretical foundations for the gravity model are provided by Bergstrand (1990), Frankel (1999), Anderson and van Wincoop (2003) and Helpman, Melitz, and Rubinstein (2008).

quantify the impact of institutional arrangement in boosting trade. The following basic gravity model is used to measure the impact of transport costs on trade:

$$\ln(X_{ijt}) = \beta_0 + \beta_1 D_{ij} + \beta_2 Y_{it} + \beta_3 Y_{jt} + e_{ijt} \dots \qquad \dots \qquad \dots \qquad \dots \qquad (1)$$

Where X_{ijt} denotes the value of real bilateral trade between i and j at time t, D_{ij} is distance between i and j, Y is the real GDP of a country. While following Anderson and van Wincoop (2003) authors augment this model to incorporate the impact of multilateral resistance[4], and other institutional variables on the trade. Given the data limitations and objectives of the study, following variables in gravity model were used.

$$X_{ijt} = \beta_0 + \beta_1 D_{ij} + \beta_2 Y_{it} + \beta_3 Y_{jt} + \beta_4 (PCY_{it} - PCY_{jt}) + \beta_5 TB + \beta_6 NTB$$
$$+ \beta_7 SAFTA + \beta_8 MFN + \beta_9 SAFTA * DEMOC + \beta_{10} MFN * DEMOC + \beta_1 CB$$
$$+ b_1 CB + b_2 CL + b_3 LL + e_{ijt} \quad \dots \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad (2)$$

Where X_{ijt} = Total bilateral trade of Pakistan; Y_{it} = GDP of Pakistan; Y_{jt} = GDP of each partner country; $PCY_{it} - PCY_{jt}$ = the difference between per capita income of Pakistan and each respective partner country; TB = Tariff barrier; NTB = Non-tariff barrier; $SAFTA$ = Dummy for SAFTA; MFN = Dummy for MFN; $DEMOC$ = Democratic Institutions; CB = Dummy for common boarder; CL = Dummy for common language and LL = Dummy for landlocked.

4.2. Data and Estimation Strategy

To measure the impact of institutional and non-institutional arrangements on bilateral trade, a panel of eight South Asian countries was used over a period of thirty eight years, 1975–2013.[5] The panel data estimation method is considered an efficient tool for analysis, as it allows inclusion of data for different cross sections, increased sample size that leads to better estimates, controlling for variables that are not directly observable, and accounts for individual heterogeneity [Iqbal and Daly (2014); Nawaz (2015); Nawaz, Iqbal, and Khan (2015)]. The choice of eight countries in South Asian region is mainly based on the availability of data. The data on bilateral trade in US$ is taken from Direction of Trade Statistics (DOTS) by International Monetary Fund (IMF) and COMTRADE by the United Nation (UN). The econometric problem arising from zero trade is catered by replacing with one.

The size of the country is measured by its respective GDP. According to the gravity model, the amount of trade is positively associated with the GDPs of both importing and exporting countries. Increasing GDP in exporting country implies greater availability of products for exports, while increasing GDP in importing country implies higher demand for imports. Thus, the coefficients of both importing and exporting countries' GDPs are expected to be positive [Gul and Yasin (2011); Kien (2009); Narayan and Nguyen (2016); Saini (2012)]. The expected sign of the coefficient in the

---

[4]Multilateral trade resistances are the unobserved barriers to trade that each country faces with all its trading partners.

[5]The countries include Pakistan, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka.

GDP per capita is positive according to the Heckscher-Ohlin (HO) hypothesis implying the greater this difference, the greater the relative importance of inter industry trade will be [Caporale, Sova, and Sova (2015)]. The data on the GDP in US$ is drawn from the *World Development Indicators* (WDI)—published by the World Bank.

The second important factor affecting trade flows is transportation and information costs, measured distance between the trading partners, common borders, and whether the country(s) is(are) landlocked or not [Gul and Yasin (2011)]. The distance is measured as the air distance between Islamabad and the capital territory of each selected country. For distance, data is taken from Mayer and Zignago (2011). Geographical distance, a proxy for transportation cost, has a negative impact on bilateral trade [Caporale, *et al.* (2015)]. For common borders, a dummy variable have been used with a value of one for India, Afghanistan, and zero for the other South Asian countries. In this study, there are three landlocked countries including, Afghanistan, Bhutan and Nepal.

As mentioned earlier, trade is mostly affected by the institutional and non-institutional arrangements of trading countries apart from tariffs and quotas. To measure the institutional quality, the important variables in extended gravity model, data is taken from the Polity IV dataset, published by Marshall, Gurr, and Jaggers (2014), which is a widely accepted set to measure the world democratic institutions [Yu (2010)]. This dataset measures institutionalised democracy, and index ranges from +0 (no democracy) to 10 (full democracy). In this study, it is argued that the democratic institutions may have direct as well as indirect impact. Following existing literature, it is hypothesized that democratic institutions may have a direct positive impact on bilateral trade [Yu (2010)]. Well defined and enforced democratic institutions can promote trade by ensuring the implementation of free trade agreements like SAFTA and MFN. To quantify the impact of non-institutional arrangements, two measures including tariff cost and non-tariff cost are used. Arvis, Duval, Shepherd, and Utoktham (2013) defined bilateral trade cost as:

> Trade costs in its wider sense, including not only international transport costs and tariffs but also other trade cost components, such as direct and indirect costs associated with differences in languages, currencies as well as cumbersome import or export procedures.

Trade cost is measured using the following formula:

$$\tau_{ijkt} \equiv \left(\frac{t_{ijkt}\, t_{jikt}}{t_{iikt}\, t_{jjkt}} \right)^{\frac{1}{2}} - 1 = \left(\frac{x_{iikt}\, x_{jjkt}}{x_{ijkt}\, x_{jikt}} \right)^{\frac{1}{2(\sigma_k - 1)}} - 1;\ at\ sector\ k,\ time\ t \qquad \dots \quad (3)$$

Where: τ_{ij} denotes geometric average trade costs between country i and country j; t_{ij} denotes international trade costs from country i and country j; t_{ji} denotes international trade costs from country j and country i; t_{ii} denotes international trade costs for country i; t_{jj} denotes international trade costs for country j; x_{ij} denotes international trade flows from country i and country j; x_{ji} denotes international trade flows from country j and country i; x_{ii} denotes; international trade of country i; x_{jj} denotes international trade of country j and σ_k denotes sector specific elasticity of substitution between goods in the sector. This bilateral trade cost is a measure of costs associated with both importing and exporting goods between two countries i and j. Value of τ_{ij} can be used a trade cost indicator. The value of t_{ij} is provided in ad valorem equivalent form. Since trade cost is bi-directional in nature, the bilateral trade costs indicators is also bi-directional, and is a measure

(geometric average) of the tariff imposed by the two partners countries on each other's imports. The bilateral tariff cost indicators is defined as follows:

$$geometric\_avg\_tariff = \sqrt{(1+tariff_{ij})(1+tariff_{ji})} \ . \quad \ldots \quad \ldots \quad \ldots \quad (4)$$

Where *geometric_avg_tariff* denotes geometric average of *tariff_{ij}* (simple average effective import tariff imposed by country *i* on country *j*) and *tariff_{ji}* (simple average effective import tariff imposed by country *j* on country *i*).

Non-tariff trade costs are also measured by excluding tariff from the total trade costs defined above. The non-tariff trade costs encompasses all additional costs other than tariff cost involved in trading goods bilaterally rather than domestically, are also calculated as:

$$nontariff\_tij = \frac{\left(\dfrac{1+t_{ij}/100}{geometric\_avg\_tariff}\right)-1}{100} \ \ldots \quad \ldots \quad \ldots \quad \ldots \quad (5)$$

Data is obtained from the Economic and Social Commission for Asia and the Pacific (ESCAP) World Bank: International Trade Costs published by the World Bank [WB and ESCAP (2016)].

To estimate the model, fixed effects model is used with time and cross section fixed effects to estimate the models. The fixed effects model is the most common technique for estimation of linear panel regression. In this method, the constant term remains as cross section specific and varies for each country, but still it is assumed that the slope coefficients are constant across countries. This takes into account the individuality of each cross-sectional unit [Nawaz (2015); Nawaz, *et al*. (2015); Nawaz and Khawaja (2016)]. Time invariant heterogeneity across members of the panel is eliminated by employing fixed effects [Islam (1995)]. The time effect is important because various factors such as technological changes, changes in government regulatory and/or tax policies, and external effects such as war, change over time. This approach captures the role of unobserved multilateral resistance [Shepherd (2013)]. Following Pesaran, Shin, and Smith (1999) the PMG estimator is employed for estimating short-run and long-run relationships in dynamic heterogeneous panels.

5. RESULTS AND DISCUSSION

5.1. Basic Gravity Model

The standard gravity model is estimated in terms of the GDP of respective countries, trade costs as measured by distance, and incidence of common border and landlocked status. The results of basic gravity model for total trade are presented in Table 4. The basic model has been estimated using the Ordinary Least Squares (OLS), and the fixed effect with time and country specific fixed effects models. Various specifications are used to ensure the robustness of results.

The results show that for most of the estimation the coefficient of Pakistan's GDP is positive and significant. This indicates that domestic development plays a significant role in expanding trade volume in the country. Estimates reveal that Pakistan's bilateral

Table 4

The Basic Gravity Model

Variables	(1) OLS	(2) FE	(3) FE	(4) FE
LN(GDPI)	0.780	0.592	1.003	0.933
	(0.20)***	(0.39)	(0.23)***	(0.27)***
LN(GDPJ)	0.279	0.250	–0.076	–0.165
	(0.11)**	(0.12)**	(0.26)	(0.25)
D(GDPPC)	0.000	0.001	–0.000	–0.000
	(0.00)***	(0.00)***	(0.00)	(0.00)
LN(Dist)	–2.792	–2.579	–2.589	–2.754
	(0.85)***	(0.92)***	(0.37)***	(0.35)***
CB	–2.011	–1.812		
	(0.84)**	(0.94)*		
LL	–3.743	–3.838		
	(0.64)***	(0.68)***		
Constant	13.758	17.951	11.775	16.478
	(7.01)*	(11.70)	(3.36)***	(6.76)**
R-squared	0.679	0.702	0.920	0.931
No of Countries	8	8	8	8
No of Obs.	234	234	234	234
Year FE	NO	YES	No	YES
Country FE	NO	NO	YES	YES

Robust standard errors in parentheses.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

trade with South Asian countries will increase by 0.78 percent, as the domestic GDP increases by 1 percent (Table 4; model 1). The results further show that for most of the estimations, the coefficient of our trading partners GDPs is positive and significant, implying that development of partner country in the region is important for trade expansion. One percent increase in the GDP of partner countries will increase 0.28 percent of Pakistan's bilateral trade. Earlier studies support these findings for Pakistan [Gul and Yasin (2011)]. The coefficient of the distance variable implies that when distance—as a proxy for transportation cost—between Pakistan and its trading partner increases by 1 percent on average, bilateral trade decreases by 2.7 percent. Therefore, findings of the basic gravity model are consistent with the theory implying that Pakistan's trade is directly related to the economic size of the partner countries, and inversely related to the distance between them. The study used per capita income difference variable in the model to test for the relative strength of the Linder hypothesis *vis-à-vis* the Heckscher-Ohlin (HO) hypothesis. The impact of per capita income difference is positive and significant in the most cases. The estimated coefficient is 0.001, which implies that bilateral trade increase as the difference between the per capita GDP of Pakistan, and its trading partner increases, but less than proportionately. Thus, the available results support the HO hypothesis (differences in factor endowments) in the case of Pakistan. Earlier Gul and Yasin (2011) found similar results for Pakistan. Further, the results show that the common border dummy has a negative and significant impact on Pakistan's bilateral trade in the region. As the model is specified in the log form, the coefficient was

interpreted by taking the exponential. The projected results [exp (–2.011)–1 = – 0.87] imply that Pakistan's trade with its neighbouring countries (those that share a common border) is 87 percent lower than expected. Apparently, the result seems contradictory to the theory. However, the reasons are understandable: only two countries, India and Afghanistan have a common border with Pakistan (included in the sample). Trade with these countries and India in particular, is restricted due to non-tariff barriers including political conflicts, institutional hurdles, and procedural requirements. Further, much of the border trade between Pakistan and Afghanistan, and Pakistan, and India is underground and unrecorded. Gul and Yasin (2011) also found similar results. The dummy for landlock is statistically significant and has the expected negative sign. The coefficient value –0.98 [exp (–3.743)–1 = –0.98] indicates that trade between Pakistan and landlocked countries will be lowered by 98 percent.

5.2. Role of SAFTA and MFN

To quantify the impact of trade agreement between Pakistan and its trading partners, the basic gravity model was augmented by incorporating two variables for trade agreements i.e. SAFTA and MFN. The results of augmented gravity models are presented in Table 5. The results for basic variables remain similar in most of the cases reported in Table 4. The estimation results show that the SAFTA and MFN variable have an insignificant impact on Pakistan's bilateral trade. This indicates that the regional or even bilateral trade agreements are not conducive for enhancing Pakistan's bilateral trade. Pakistan fails to fully harvest the benefits of regional and/or bilateral integration.

Table 5

The Augmented Gravity Model: The Role of SAFTA and MFN

Variables	(1) OLS	(2) FE	(3) FE	(4) FE	(5) FE
LN(GDPI)	0.576	0.677	1.058	1.152	1.003
	(0.24)**	(0.44)	(0.25)***	(0.27)***	(0.23)***
LN(GDPJ)	0.268	0.250	–0.061	–0.165	–0.076
	(0.11)**	(0.12)**	(0.25)	(0.25)	(0.26)
D(GDPPC)	0.001	0.001	–0.000	–0.000	–0.000
	(0.00)***	(0.00)***	(0.00)	(0.00)	(0.00)
LN(Dist)	–2.704	–2.579	–2.595	–2.754	–2.589
	(0.85)***	(0.92)***	(0.37)***	(0.35)***	(0.37)***
CB	–1.909	–1.812			
	(0.85)**	(0.94)*			
LL	–3.744	–3.838			
	(0.64)***	(0.68)***			
SAFTA	0.548	–0.255	–0.175	–0.172	
	(0.38)	(1.11)	(0.19)	(0.32)	
MFN					1.375
					(1.31)
Constant	18.277	15.992	10.189	11.428	11.775
	(7.27)**	(12.24)	(3.42)***	(7.19)	(3.36)***
R-squared	0.682	0.702	0.921	0.931	0.920
No of Countries	8	8	8	8	8
No of Obs.	234	234	234	234	234
Year FE	NO	YES	No	YES	No
Country FE	NO	NO	YES	YES	YES

Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Now question arises: why does Pakistan fail to achieve the benefits of trade agreement in the region? Are SAFTA and/or MFN relevant? To answer these questions, analysis was extended to find the reasons behind the ineffectiveness of SAFTA and/or MFN in promoting Pakistan's bilateral trade. There are three possible reasons, apart from others, for malfunctioning of SAFTA and/or MFN. These include:

(i) Role of Tariff and Non-Tariff Barriers.
(ii) Role of Institutional Framework.
(iii) Short run vs. long run impacts.

5.2.1. *Role of Tariff and Non-Tariff Barriers*

It is generally believed that tariff and non-tariff barriers act as a binding constraint in promoting bilateral and/or regional trade. To quantify the impact of tariff and non-tariff barriers, the basic gravity model was augmented. The results are presented in the Table 6 below. It was found that tariff has a negative and statistically significant impact on Pakistan's bilateral trade. The estimated coefficient is −11.660 which is statistically

Table 6

The Augmented Gravity Model: The Role of Tariff and Non-Tariff Barriers

Variables	(1) OLS	(2) FE	(3) FE	(4) FE
LN(GDPI)	−0.203		0.516	
	(0.30)		(0.56)	
LN(GDPJ)	0.580	0.557	−0.054	1.604
	(0.30)*	(0.26)**	(0.57)	(1.18)
D(GDPPC)	−0.001	−0.001	−0.001	−0.001
	(0.00)***	(0.00)***	(0.00)***	(0.00)***
LN(Dist)	−3.258	−3.765	−0.795	−1.837
	(0.97)***	(1.04)***	(0.21)***	(0.65)**
CB	−3.682	−4.178		
	(0.74)***	(0.81)***		
LL	−0.975	−1.109		
	(1.56)	(1.46)		
LN(Tariff)	−11.660	−10.995	−11.270	−11.093
	(2.75)***	(3.07)***	(2.61)***	(3.10)***
LN(Non-Tariff)	−4.141	−4.107	−4.387	−3.880
	(0.66)***	(0.55)***	(0.60)***	(0.61)***
Constant	56.372	55.185	34.460	12.925
	(11.82)***	(11.80)***	(6.70)***	(25.02)
R-squared	0.992	0.994	0.992	0.994
No. of Countries	8	8	8	8
No. of Obs.	36	36	36	36
Year FE	NO	YES	No	YES
Country FE	NO	NO	YES	YES

Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

significant at 1 percent. The coefficient of the tariff variable implies that when tariff increases by 1 percent, Pakistan's bilateral trade decreases by 11.7 percent. Similarly, non-tariff has also a negative and statistically significant effect on Pakistan's bilateral trade. The estimated coefficient is –4.141 which is statistically significant at 1 percent. The coefficient of the non-tariff variable implies that when non-tariff increases by 1 percent, Pakistan's bilateral trade decreases by 4.1 percent. These findings indicate that a reduction in the tariff and non-tariff barriers can enhance the bilateral trade. Hence, the regional and/or bilateral trade agreements are helpful in promoting trade among regional countries. But, region as a whole fails to reduce tariff rate and eliminate non-tariff barriers as reported in Section 2. Only signing an agreement has no impact on trade. Concrete measures are required to boost trade. Why Pakistan and other regional countries fail to remove non-tariff barriers? The possible answer of this question is that institutional framework is not good enough to control non-tariff barriers. For example, documentation process is time consuming along with the existence of bribery and high underground trades are some of the notable reasons of non-tariff barriers.

5.2.2. *Role of Institutional Framework*

To quantify the impact of institutional framework in making trade agreement effective, interactive term of SAFTA and democratic institutions and MFN and democratic institutions were used. The results are presented in Table 7. The results show that interactive terms of SAFTA and democratic institutions have a positive impact on

Table 7

The Augmented Gravity Model: The Role of Democratic Institutions

Variables	(1) OLS	(2) FE	(3) OLS	(4) FE
LN(GDPI)	1.532	1.444	1.200	1.393
	(0.19)***	(0.41)***	(0.30)***	(0.35)***
LN(GDPJ)	–0.901	–0.847	–0.491	–0.947
	(0.12)***	(0.14)***	(0.35)	(0.38)**
D(GDPPC)	0.001	0.001	0.000	0.000
	(0.00)**	(0.00)***	(0.00)	(0.00)
LN(Dist)	–4.338	–3.720	–4.868	–5.687
	(0.72)***	(0.79)***	(0.71)***	(0.76)***
CB	–1.740	–1.177		
	(0.81)**	(0.88)		
LL	–8.381	–8.030		
	(0.57)***	(0.66)***		
SAFTA*DEMOC	0.081	0.086		
	(0.04)**	(0.04)**		
MFN*DEMOC			1.454	1.595
			(0.21)***	(0.20)***
Constant	35.859	32.687	29.567	40.258
	(6.64)***	(11.31)***	(5.09)***	(7.54)***
R-squared	0.768	0.785	0.936	0.947
No of Countries	8	8	8	8
No of Obs.	200	200	200	200
Year FE	NO	YES	No	YES
Country FE	NO	NO	YES	YES

Robust standard errors in parentheses.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

bilateral trade. The estimated coefficient is 0.081 which is statistically significant at 5 percent. The results further show that interactive term of the MFN and democratic institutions have a positive impact on bilateral trade. The estimated coefficient is 1.4 which is statistically significant at 1 percent. These findings highlight the role of democratic institutions in promoting trade. Regional and/or bilateral trade agreements have a significant role, only when these agreements are supported by a well-developed and enforced institutional framework. What well developed and enforced institutional framework ensure? The well-defined institutional framework ensures the implementation of agreements. For example, the reduction of tariff rate and removal of non-tariff barriers can only be achieved, if institutional frameworks are well developed and enforced.

5.2.3. *Long Run vs. Short Run Impacts*

The third possibility of insignificant impact of SAFTA and/or MFN might be due to differences in the impact of these agreements in the short and the long run. It is difficult to fully harvest the benefits of regional and/or bilateral integration in the short run. The impact of SAFAT on bilateral trade for short run as well for long run was measured. The results are presented in the Table 8 below. The results based on PMG estimation show that variable representing regional integration is not significant in the short run. The estimated coefficient of SAFTA has an insignificant impact on bilateral trade in the short run. On the other hand, the estimation results show that the variable representing regional integration is significant in the long run. The estimated coefficient of SAFTA has a significant impact on bilateral trade in the long run. This implies that in the short run, the regional integration may not be effective. It is because, regional and/or bilateral is a long term concept. Various institutional reforms are required to reap the potential benefits of regional and/or bilateral integration. However, in the short run, it is difficult to remove non-tariff barriers.

Table 8

The Augmented Gravity Model: ARDL Estimates Based on PMG

Variables	(1) Ecm	(2) SR
Short run Coefficient		
Ecm		−0.566
		(0.14)***
D.LN(GDPI)		1.482
		(0.33)***
D.LN(GDPJ)		4.113
		(1.05)***
D.SAFTA		−0.076
		(0.12)
Constant		3.816
		(5.39)
Long run Coefficient		
LN(GDPI)	−0.325	
	(0.28)	
LN(GDPJ)	−6.577	
	(1.06)***	
SAFTA	0.302	
	(0.14)**	

Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

6. CONCLUDING REMARKS AND POLICY RECOMMENDATIONS

This study has investigated the impact of institutional and non-institutional arrangements on bilateral trade, using extended gravity model which incorporates the role of democratic institutions and non-tariff barriers. This paper also investigated the impact of SAFTA on bilateral trade in the short as well as in the long run. The empirical analysis, based on a panel of eight South Asian countries comprising data over 1975–2013. For empirical analysis, fixed effects model was employed with time and cross section fixed to estimate models. The PMG estimator was also employed for estimating the short run and the long-run relationships in a dynamic heterogeneous panels.

The empirical analysis has shown that regional and/or bilateral agreements are not effective in promoting bilateral trade between Pakistan and its regional trading partners. The impact of SAFTA and MFN on bilateral trade is insignificant. Further empirical analysis has shown that SAFTA and MFN become effective and contribute to bilateral trade significantly, if complemented by a well-developed and enforced democratic institutional framework. This implies that a strong political will is required to channel the impact of SAFTA and MFN on bilateral trade. Empirical analysis has also shown that tariff and non-tariff barriers act as a binding constraint in expanding bilateral trade in the region. Both tariff and non-tariff barriers have a significant negative impact on Pakistan's bilateral trade in the region. Empirical analysis also depicts that the SAFTA may not be effective in the short run, as it has an insignificant impact on trade in the short run, but is effective in the long run, as it has a significant impact on trade in the long run. This finding also supports the role of institutional framework. Regional and/or bilateral trade agreement requires various policy reforms to reduce tariff barrier as well as removal of non-tariff barriers. These reforms can only be implemented if these agreements are supported by well-defined institutions.

Policy Implications

Based on key findings of the study, suggested policy framework is divided into two parts: (i) Economic Framework, and (ii) Institutional Framework.

(i) *Economic Framework:* the basic gravity model reveals a positive association between economic growth and trade, indicating necessary role of economic growth for trade. The government should promote sustained and high economic growth by reforming the industrial sector which is a backbone of the economy. Economic growth has both demand as well as supply side implications for trade. On demand side, it creates more demand for foreign goods and on the supply side, it helps to produce more goods for exports. Sustained growth will reduce the cost of production, which ultimately, improves competitiveness that is required for trade. The government should also invest on physical infrastructure to reduce distance cost which negatively affects bilateral trade. Long run vs. short run analysis suggests that long run policy reforms are required to promote trade—as trade reform is a long term phenomenon, and its benefits could be measured in the long run, rather than in the short run. In the short run there is a possibility that some sectors may face loss, but in the long run there will be a win-win situation for all countries.

(ii) *Institutional Framework:* given the weak institutional framework of the regional economies, the regional and/or bilateral agreements may not yield effective strategy to promote bilateral trade. The regional and/or bilateral agreements can only be effective, when these are supported by a well-defined and enforced institutional framework. Analysis has shown that democratic institutions play significant role in realising the benefits of the regional and/or bilateral agreements. This implies that the outcome of these trade reforms crucially depends upon the institutional framework of the country. Institutional arrangements are a pre-requisite for achieving the fruits of the MFN and SAFTA. Trade cost is the most binding constraint. To improve the trade ties between trading countries, like Pakistan and India, requires extensive reform in reducing trade cost. Trade facilitation measures need to be improved and tariff rates should be reduced for boosting trade, and making free trade agreement effective. In summation, to improve the trade ties between the two countries, improvement in physical as well as soft infrastructure is required. Any trade agreements between the two countries, including the MFN can only be effective in expanding bilateral trade, when it is supported by a well-defined and enforced institutional framework that ensure the implementation of policy reforms needed to reduce tariff rates and remove non-tariff barriers.

REFERENCES

Anderson, J. E. and E. van Wincoop (2003) Gravity with Gravitas: A Solution to the Border Puzzle. *American Economic Review* 93:1, 170–192.

Arvis, J.-F., D.Saslavsky, L. Ojala, B. Shepherd, C. Busch, and A. Raj (2014) Connecting to Compete 2014: Trade Logistics in the Global Economy—The Logistics Performance Index and Its Indicators: World Bank, Washington, DC.

Arvis, J.-F., Y. Duval, B. Shepherd, and C. Utoktham (2013) Trade Costs in the Developing World: 1995-2010. World Bank. (World Bank Policy Research Working Paper No. 6309).

Baysan, T., A. Panagariya, and N. Pitigala (2006) Preferential Trading in South Asia. (World Bank Policy Research Working Paper No. 3813).

Bergstrand, J. H. (1990) The Heckscher-Ohlin-Samuelson Model, the Linder Hypothesis and the Determinants of Bilateral Intra-Industry Trade. *The Economic Journal* 100:403, 1216–1229.

Bouët, A. (2008) *The Expected Benefits of Trade Liberalisation for World Income and Development: Opening the "Black Box" of Global Trade Modeling*. International Food Policy Research Institute (IFPRI).

Bouët, A., S. Mevel, and M. Thomas (2010) Is SAFTA Trade Creating or Trade Diverting?: A Computable General Equilibrium Assessment with a Focus on Sri Lanka. International Food Policy Research Institute (IFPRI).

Caporale, G. M., A. Sova, and R. Sova (2015) Trade Flows and Trade Specialisation: The Case of China. *China Economic Review* 34, 261–273.

De, P., S. Raihan, and E. Ghani (2013) *What Does MFN Trade Mean for India and Pakistan? Can MFN be a Panacea?* The World Bank.

Frankel, J. A. (1999) No Single Currency Regime is Right for All Countries or at All Times. National Bureau of Economic Research. (NBER Working Paper No. 7338).

Gopalan, S., A. A. Malik, and K. A. Reinert (2013) The Imperfect Substitutes Model in South Asia Pakistan—India Trade Liberalisation in the Negative List. *South Asia Economic Journal* 14:2, 211–230.

Govindan, K. (1994) A South Asian Preferential Trading Arrangement: Implications for Agricultural Trade and Economic Welfare. World Bank, Washington, DC.

Gul, N. and H. M. Yasin (2011) The Trade Potential of Pakistan: An Application of the Gravity Model. *Lahore Journal of Economics* 16:1, 23–62.

Helpman, E., M. Melitz, and Y. Rubinstein (2008) Estimating Trade Flows: Trading Partners and Trading Volumes. *The Quarterly Journal of Economics* 123:2, 441–487.

Husain, I. (2013) Normalising India-Pakistan Trade Relations. *Distinguished Lecture at the Indian Council for Research on International Economic Relations (ICRIER).* New Delhi on February, 5.

Iqbal, N. and V. Daly (2014) Rent Seeking Opportunities and Economic Growth in Transitional Economies. *Economic Modelling* 37:0, 16–22.

Islam, N. (1995) Growth Empirics: A Panel Data Approach. *The Quarterly Journal of Economics* 1127–1170.

Khan, M. S. (2009) India-Pakistan Trade: A Roadmap for Enhancing Economic Relations. Peterson Institute. Washington, DC: Peterson Institute for International Economics. (Policy Brief 09-15).

Kien, N. T. (2009) Gravity Model by Panel Data Approach: An Empirical Application with Implications for the ASEAN Free Trade Area. *ASEAN Economic Bulletin* 26:3, 266–277.

Kugelman, M. (2013) *Pakistan-India Trade: What Needs to be Done? What Does it Matter?* Woodrow Wilson International Center for Scholars, Asia Programme.

Looi Kee, H., A. Nicita, and M. Olarreaga (2012) *Overall Trade Restrictiveness Indices and Import Demand Elasticities* (updated July 2012). Retrieved from: http://go.worldbank.org/FG1KHXSP30

Marshall, M. G., T. R. Gurr, and K. Jaggers (2014) *Political Regime Characteristics and Transitions, 1800-2013*.

Mayer, T. and S. Zignago (2011) Notes on CEPII's Distances Measures: The GeoDist Database. (CEPII Working Paper 25).

Nabi, I. and A. Nasim (2001) Trading with the Enemy: A Case for Liberalising Pakistan-India Trade. In S. Lahiri (ed.) *Regionalism and Globalisation: Theory and Practice*. London: Routledge.

Naqvi, Z. F. and P. Schuler (2007) *The Challenges and Potential of Pakistan-India Trade.* World Bank.

Narayan, S. and T. T. Nguyen (2016) Does the Trade Gravity Model Depend on Trading Partners? Some Evidence from Vietnam and her 54 Trading Partners. *International Review of Economics and Finance* 41, 220–237.

Nawaz, S. (2015) Growth Effects of Institutions: A Disaggregated Analysis. *Economic Modelling* 45, 118–126.

Nawaz, S. and M. I. Khawaja (2016) Fiscal Policy, Institutions and Growth: New Insights. *The Singapore Economic Review* (Forthcomming).

Nawaz, S., N. Iqbal, and M. A. Khan (2015) The Impact of Institutional Quality on Economic Growth: Panel Evidence. *The Pakistan Development Review* 53:1, 17–34.

Pasha, H. A. and M. Imran (2012) The Prospects for Indo-Pakistan Trade. *Lahore Journal of Economics* 17:(Special Edition), 293–313.

Pesaran, M. H., Y. Shin, and R. P. Smith (1999) Pooled Mean Group Estimation of Dynamic Heterogeneous Panels. *Journal of the American Statistical Association* 94:446, 621–634.

Pigato, M. (1997) *South Asia's Integration into the World Economy.* Banco Mundial.

Qamar, A. (2005) Trade between India and Pakistan: Potential Items and the MFN Status. *State Bank of Pakistan Research Bulletin* 1:1, 51–52.

Raihan, S. (2012) SAFTA and the South Asian Countries: Quantitative Assessments of Potential Implications: University Library of Munich, Germany.

Raihan, S. and P. De (2013) India-Pakistan Economic Cooperation: Implications for Regional Integration in South Asia. Commonwealth Secretariat, London.

Saini, G. K. (2012) 5-Gravity Analysis of South Asia's Free Trade. *Prospects of Regional Economic Cooperation in South Asia* (pp. 67-76): Chandos Publishing.

Shaikh, F. M. and M. S. Rahpoto (2009) Impact of Trade Liberalisation and SAFTA on Pakistan's Economy by Using CGE Model. *International Journal of Business and Management* 4:4, 192.

Shaikh, F. M., A. A. S. G. Syed, H. Shah, and A. A. Shah (2012) Observing Impact of SAFTA on Pakistan's Economy by Using CGE Model. Pakistan. *Journal of Commerce and Social Sciences* 6:1.

Shepherd, B. (2013) *The Gravity Model of International Trade: A User Guide*. United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

Taneja, N. (2007) India's Exports to Pakistan: Transaction Cost Analysis. *Economic and Political Weekly* 96–99.

Taneja, N. and P. Kalita (2011) Most Favoured Nation: New Trade Opportunities for India and Pakistan. *Economic and Political Weekly* 46:49, 14–17.

UN (2015) *United Nations Commodity Trade Statistics Database*. Retrieved from: http://comtrade.un.org/

WB (2015) Doing Business 2016: Measuring Regulatory Quality and Efficiency: World Bank, Washington, DC.

WB and ESCAP (2016) *ESCAP World Bank: International Trade Costs: 1995–2013*. Retrieved from: http://databank.worldbank.org/data/reports.aspx?source=escap-world-bank-international-trade-costs#

Yu, M. (2010) Trade, Democracy, and the Gravity Equation. *Journal of Development Economics* 91:2, 289–300.

Book Review

Minhas Majeed Khan, *et al.* **(eds.)**. *China-Pakistan Economic Corridor—A Game Changer*. Islamabad, Pakistan: Institute of Strategic Studies Islamabad (ISSI). 2016. iii+164 Pages. Pak Rupees 500.00 (Hardback).

China-Pakistan Economic Corridor—A Game Changer is a collection of essays, written by experts in the fields of International Relations, Political Economy, Current Affairs, and Sino-Pak relations. The book takes its readers on an exuberant journey through the history of Silk Route to the One Belt, One-Road (OBOR) initiative and the political economy of the Sino-Pakistan relations. The book not only underscores the challenges that lie ahead in making the China-Pakistan Economic Corridor (CPEC) a success, but it also presents suggestions for making it a real game changer for development and prosperity of Pakistan, and the entire region. The book highlights the economic and political importance of CPEC by integrating analysis with the latest data.

In the first article, Li Xiguang discusses the importance of the OBOR initiative. He asserts that "opening to both the east and the west", China will become the centre of Central Asia. The idea of OBOR raised by China would not only achieve economic purposes but cultural, religious, and educational exchanges can also be made possible through this project. Historically, Silk Road had its own influence and it helped in shaping the governance and transportation of even the most distant countries and influenced the culture of even the remotest areas. In the past, the area around the CPEC has seen the ascent of the cultural centres of the world. The CPEC, which encompasses countries including Pakistan, Afghanistan, Tajikistan, Kyrgyzstan, Kazakhstan, Turkmenistan, and Iran has once again put China on the central stage. The author feels that China needs to maintain social relationships and political cooperation with these nations. This initiative is shaping a new world order through common destiny, common interests, values, culture, and security.

In the second article Rashid Ahmad Khan discusses the impact of CPEC on people-to-people contact. Khan states that extension of the scope of participation under the CPEC will prompt more prominent thriving and welfare of the peoples of the two nations. Perceiving the requirements for bringing the people of the two nations nearer, both governments are giving careful consideration to setting up institutional instruments for the advancement of people-to-people contact. To overcome the dialect boundary, the Government of Pakistan, with the help of the Chinese Government, has opened China Study Programmes for the instruction of Chinese dialect in different colleges of Pakistan. Khan also highlights that tourism is another area in which there is an immense potential for expanding social participation and elevating people-to-people contact. In terms of

both religious and recreational tourism, Pakistan can turn into an attractive destination for the Chinese vacationers, if Pakistan puts together the required tourism framework and enhance the law and order situation. The author argues that the joint ventures in the CPEC industrial zones will lead to the workers of both Pakistan and China working together, which will give them a chance to integrate with each other.

The third article, written by S. M. Hali, is about the regional and global aspects of the CPEC. According to Hali, CPEC is a part of the New Silk Route (NSR), which is not only beneficial to Pakistan and China but also to the landlocked countries of Central Asia. He further emphasises the role of CPEC in being potent enough to make the world a global village by connecting at least 60 countries of Europe and Asia through railways, roads and sea channels. He then discusses different international initiatives to revive the old Silk Route as well as making new ones by the European Union, Turkey, and even the USA. Hali concludes by giving an overview of the fruits that CPEC is anticipated to bring for China, Pakistan, the region, and the globe.

The fourth article of the book, authored by Du Youkong, reviews the interplay between CPEC and OBOR. Youkong shows as to how CPEC and OBOR (the combination of land and sea routes, which involves 60 countries) would "complement" and "supplement" each other. He analyses the position of CPEC, which is the "flagship" project of OBOR, and mutual supplementary and complementary roles of the OBOR and CPEC for each other. The author concludes that CPEC and OBOR will bring prosperity in the region and that would further increase the importance of CPEC.

Malik Muhammad Ashraf analyses the Indian factor in the fifth article. Ashraf discusses the Indian opposition to this grand OBOR initiative, and the possible measures to ensure the success of CPEC despite these interruptions. He argues that the refrainment of India to join CPEC despite China's invitation and India's historical importance in trade route can be attributed to the historical and political relations between India and Pakistan. The author argues that India's activities to disrupt CPEC clearly point to the fact that the coming days would witness an exacerbation in the security condition. Pakistan, thus, needs to improve the security situation because the stakes are very high. To improve the security situation, Pakistan will have to promote peace in Afghanistan. To thwart the Indian intentions, their activities should be actively exposed to the UN and the international community, and more diplomatic offensive is required to build pressure on India. At the same time, efforts should be made to resolve disputes with India through bilateral channels or the UN. Internally, National Action Plan (NAP) religious scholars, the media, and society can play a pivotal role in changing the perceptions of the people and urging them to act their due part in ensuring peace within the country. Across-the-board accountability will also curtail the resource constraint and improve the flow of foreign direct investment from other countries in Pakistan.

The sixth article by Muhammad Khan discusses at length the domestic and external challenges that may be confronted in the completion of CPEC. Khan also discusses the measures that can convert these challenges into opportunities. According to him, the external challenges include rivalry between China and the US, the regional power play with India, competitiveness with China, and the geographical limitations of CPEC that would require maintenance of the 3000-km long route, including the mountainous region of northern Pakistan. The internal challenges, on the other hand,

include provincial security vulnerabilities caused by remoteness, sub-nationalists in Balochistan, members of banned organisations taking refuge in Southern Punjab, and the sectarian issues in Khyber Pakhtunkhwa (KPK), Gilgit-Baltistan, and the tribal belt of Dera Ismail Khan. The author argues that the public-private sector institutional mechanism can overcome the governance and accountability shortcomings for the implementation of the project. Khan proposes that these challenges can also be dealt with steps like, All Parties Conferences on CPEC, the capacity building of law enforcement agencies, priority to the projects in the vulnerable areas of Balochistan and KPK, stabilisation of western frontiers, bridging the trust deficit between Islamabad and Kabul, and focus on human resource development to cater unemployment and extremism amongst youth. The author gives due importance to the diplomacy, calling for an institutionalised approach to thwart the propaganda against the project. With this approach, the US, Afghanistan and India should be engaged constructively. He further proposes the reorientation of the foreign policy from constructive engagement to defensive insulation, if India does not agree. A premeditated media campaign should be used along with foreign policy to create a positive narrative at home.

The importance of the Gwadar Port for the economy of Pakistan is the topic of the seventh article, penned by Ahmad Rashid Malik. The author begins with the importance of the Indian Ocean, which, according to Robert D. Kaplan, is expected to play an important role in the new Great Game of Asia. The maritime status not only stands for the modern national power but also assists in seaborne trade, which consists of 80 percent of the overall trade. In South Asia, India is emerging as a maritime and economic power with 76 seaports, while Pakistan has only three seaports. China not only has technological and commercial supremacy in maritime, but also has the world's top three largest cargo handling ports. China also operates eight sea terminals out of the top ten. Malik argues that this Chinese experience and geostrategic location can transform Gwadar into a world class regional hub port. Gwadar can ensure energy supply from Persian Gulf to China, which supplied 51 percent of its total oil imports in 2013. Chinese interest in Gwadar will provide an immense boost to the economy of Pakistan via additional revenue, employment opportunities, transit trade, special economic zones, energy plants, and merchandise trade as Gwadar is envisioned as a hub port for the Central Asian states. In addition, the author recommends the installation of steel mill at the Gwadar Port, ship building industry to be set up at Gwadar, the revival of Gaddani ship breaking industry, privatisation of shipping industry, and development of more ports to enhance merchandise trade and encounter Chabahar port.

The eighth article by Hussain Qazi continues to discuss the importance of infrastructure. After giving brief history of the most ambitious project in the history of roads and highways, Qazi emphasises that Gwadar and CPEC will bring economic prosperity to almost 20 countries of South and Central Asia by connecting three billion people. He states that the land and sea routes reduce the time by half, saving 7 to 14 cents per kg, which amounts to a saving of 10 billion dollars per year. However, an adequate road network is a must for an efficient port functioning. The completion of these projects would link Gwadar with Quetta, Chaman and Indus highway. A "Pak-China Dedicated Freight Corridor" is also expected to link railways from Karachi and Gwadar to Kashgar, and also to the regional rail networks. The Gwadar-Kashgar oil pipeline is another mega

project planned, along with grain and fuel storage facilities, warehouses, and smart cities along the route. However, the author underlines the crucial point that the actualisation still requires institutionalised policy framework in coordination with all stakeholders to ensure transparency. The state should take special measures to address the security situation, which is vulnerable due to internal and external factors. The capacity issue is a huge challenge that can be dealt with projects like National University of Technology and Skills development.

The book is an important contribution regarding CPEC as it analyses various issues, challenges, and problems that stand in the way of making it a success. Even though various aspects of CPEC are being discussed on different fora, there is a dearth of literature available on the topic that analytically discusses the critical issues related to the CPEC. This book, therefore, opens up new avenues for discussion. The book highlights that the suggestions, calling for domestic reforms, are very exigent, but also are a question mark in themselves. In short, *China-Pakistan Economic Corridor—A Game Changer* is an important source for its readers—be they policy-makers, academicians, researchers, or laymen—to better understand various aspects of the CPEC.

Saba Anwar, Malik Adnan Khan,
and Azeem Sarwar

Pakistan Institute of Development Economics,
Islamabad.

Shorter Notice

Nancy Isenberg. *White Trash: The 400-Year Untold History of Class in America*. New York, U.S.A.: Viking Press. 2016. xvii + 460 pages. USD 15.36 (Hardcover).

With the victory of Donald J. Trump in the US elections, race and class relations have again become a topic of hot discussion. Nancy Isenberg's book from the last year, "White Trash: The 400-Year Untold History of Class in America", provides a very compelling read in this regard. The rather derogatory term 'white trash' usually refers to the poor white people, especially those living in the southern US but the author uses it in a larger context to write about the entrenched social hierarchy and class relations in the US. In a book organised in three parts, comprising a total of twelve chapters, Isenberg questions the myths about equality and democracy in the country. In the three parts, titled: *To begin the world anew; Degeneration of the American breed;* and *The white trash makeover*, Isenberg takes the reader through the evolution of the term white trash, and looks into its genesis and how it is applied to various groups of people throughout the US's history. Giving a list of terms used for the poor, including the 'waste people', 'offals' and 'lazy lubbers', Isenberg busts the myth of America's supposedly class-free society and concludes that it has no bearing with reality. This is a historical narrative, with very thorough citations, providing a comprehensive history of America from the Colonial Period to today's world, seen through the lens of social class. Looking at the class stereotypes, Isenberg traces them to the British who considered America as a wasteland, and a place where to abandon their undesirables. Stemming from this sentiment, the Americans have always looked down on the poor and thought of them to be congenital laggards. The notion of equality and free competition, she believes, with evidence, is nothing but a fantasy. Although the book is about the US but similar myths can be found in many, if not most, of the countries, and there is much to be learned here. For instance, the chapters on civil war as a class warfare, the topography of class, and the demographics of mediocrity can make an interesting study anywhere in the world. [*Durre Nayab*].