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OPINIONS

A Note on Sustained Economic Growth for Pakistan

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1. Introduction

The year 2008 is proving to be a rather challenging year for the global village. Some commentators are reporting fears of a worldwide contraction on the way. This is a good time to ponder that to what extent these events may affect the South East Asian region. Is there sufficient depth in these economies? Are their fundamentals robust enough to absorb short-term fluctuations? Has the region got the ingredients to carry on the path of economic growth? The focus of this note would be on the last question with specific emphasis on Pakistan.

The extent to which the countries rely on each other is evident from bilateral trade relations. Countries tend to be more integrated when their economic fundamentals coincide with each other and they trade relatively more. The collective nature of economic fundamentals assures immunization to an extent from economic fluctuations and hence does not jeopardize growth. In the following section we present the basic picture of the region's economic fundamentals. Section 3 presents a long-term picture. Section 4 concludes.

2. A Bird's Eye View

The geographical position of South-East Asian economies (namely, Pakistan, India, Bangladesh, Sri Lanka, Indonesia, Malaysia, Singapore, Thailand, the Philippines, and Vietnam) is a fortunate one given their close proximity to both China and India; both giants of the future. This area houses 2 out of 6 billion of the world's population; hence a very large market. A "health" check of the economies' performance in the vicinity of these power houses is both an interesting and important question.

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A simple breakdown of key macro variables in the South-East Asian economies over a stretch of time show that in the 1970s India produced 47 percent of the region's GDP followed by Indonesia, the Philippines, and Thailand. Pakistan stood fourth in terms of GDP and third in terms of population. Singapore by that time was just contributing 3 percent. Over the 1980s the situation for Pakistan remained unchanged whereas it deteriorated for the Philippines and improved by 1 percent for Singapore. But in the 1990s, also termed as the 'lost decade' for Pakistan, its share in the region's GDP reduced to just about 5 percent; whereas that of Thailand's rose from 4 percent to 13 percent and for Singapore from 3 to 7 percent. In the 1990's India lost about 8 percent of this share. The ongoing decade is promising for India, Singapore, and Malaysia; whereas, for the rest of the group the situation is stagnant. Interestingly, during 2001-2007 Pakistan's representing 10 per cent of the region's population is adding 6 per cent to the region's GDP while Singapore's 1 percent population is adding 7 percent. What is so special about Singapore? This would be explored later in the article.

Table 1. Inflation and Exchange Rates

	1985	**1990**	**1995**	**2000**	**2005**	**2006**	**2007**	**Volatility***
Bangladesh		6.1	10.2	2.2	7	6.8	9.1	2.53
	[-19.2]	[-10.9]	[-1.2]	[-5.9]	[-9]	[-4.3]	[0.7]	[6.22]
India	5.5	9	10.2	4	4.2	5.8	6.4	3.17
	[2.2]	[-6.0]	[-12.1]	[-7.5]	[-3.4]	[1.8]	[10.9]	[10.48]
Indonesia	4.7	7.8	9.4	3.7	10.4	13.1	6.4	10.05
	[-4.7]	[-5.8]	[-4.9]	[-35.4]	[-5.8]	[8.2]	[-4.4]	[24.95]
Malaysia	0.4	2.6	3.5	1.5	3	3.6	2	1.95
	[0]	[0]	[0.8]	[0]	[0.5]	[6.6]	[6.2]	[10.95]
Pakistan	**5.6**	**9.1**	**12.3**	**4.4**	**9.1**	**7.9**	**7.6**	**3.03**
	[-4.0]	**[-2.2]**	**[-11.2]**	**[-12.1]**	**[-1.2]**	**[-1.8]**	**[-0.5]**	**[7.42]**
Philippines	23.1	12.7	6.7	4	7.6	6.2	2.8	9.41
	[3.7]	[-24.8]	[-7.3]	[-24.0]	[5.7]	[7.4]	[15.7]	[17.36]
Singapore	0.5	3.5	1.7	1.4	0.4	1	2.1	1.81
	[3.2]	[7.9]	[3.4]	[-3.6]	[-1.8]	[7.8]	[5.9]	[5.91]
Sri Lanka	1.48	21.5	7.67	6.18	11.64	13.69	17.47	4.5
	[-6.8]	[-11.1]	[-3.7]	[-9.0]	[0.7]	[-3.4]	[-6.5]	[4.26]
Thailand	2.4	5.9	5.8	1.6	4.5	4.6	2.2	2.62
	[1.8]	[1.6]	[-0.4]	[-15.5]	[-5.0]	[12.1]	[6.5]	[18.01]

Source: *International Financial Statistics*
Note: In each cell the top number is annual inflation and the bottom values in square brackets are depreciation/appreciation of exchange rates of the individual countries (domestic currency per US Dollar).
* Standard deviations during 1981-2007.

Let us now turn to some macroeconomic stability indicators to broaden our analysis. Inflation and exchange rate are convenient variables to pick as they tend to provide the general macroeconomic picture of an economy internally and externally. In the case of Pakistan, annual figures, with five years intervals, from 1985 till 2007 show that inflation in Pakistan has been on average above 4 percent per annum peaking to 12 percent in 1995 (Table 1). Such levels of inflation have only been faced by Indonesia, Sri Lanka, and the Philippines. Recently, however, inflation in Pakistan like India has risen at a rather steady pace when compared to her neighbors. Singapore is very special in terms of inflation as this figure is persistently low and hence less volatile.

Exchange rate has remained moderately volatile in Pakistan when compared with Malaysia, the Philippines, and Thailand (Table 1). This volatility is again due to the reason that the Pak Rupee has persistently depreciated in all sample years; whereas for other economies, along with depreciation, there is evidence of appreciation as well. Notably, Malaysia and Singapore show very low exchange rate volatility and most of the time their currencies have been appreciating against the US dollar.

Table 2. Share of FDI in GDP and the Share of a Country's FDI in the Total FDI

	1985	**1990**	**1995**	**2000**	**2005**	**2006**	**Average***
Bangladesh			0.01	0.64	1.46		0.26
		[0.03]	[0.01]	[1.09]	[1.72]	[1.01]	[0.37]
India			0.56	0.74	0.81	1.90	0.68
			[8.07]	[13.96]	[14.15]	[25.24]	[11.93]
Indonesia	0.34	0.9	2.10	-2.32	2.79	1.45	0.60
	[13]	[8.91]	[16.36]	[-17.73]	[17.67]	[7.11]	[6.46]
Malaysia	2.18	5.3	4.81	4.04	2.90	4.00	4.12
	[29.14]	[19.02]	[15.73]	[14.76]	[8.41]	[8.77]	[20.54]
Pakistan	**0.44**	**0.6**	**1.33**	**0.47**	**2.03**	**3.43**	**0.86**
	[5.51]	**[2.00]**	**[2.72]**	**[1.20]**	**[4.67]**	**[6.18]**	**[2.71]**
Philippines	0.04	1.4	2.03	3.34	1.81	1.70	1.36
	[0.50]	[4.32]	[5.56]	[8.73]	[3.93]	[3.052]	[4.39]
Singapore	5.67	14.5	13.71	17.84	12.82	17.63	11.94
	[43.90]	[45.45]	[43.55	[64.20]	[31.80]	[34.98]	[43.73]
Sri Lanka	0.44	0.5	0.43	1.06	1.16	1.78	1.05
	[1.10]	[0.35]	[0.21]	[0.67]	[0.58]	[0.69]	[0.88]
Thailand	0.41	2.8	1.24	2.96	4.65	4.15	2.36
	[6.85]	[19.92]	[7.79]	[13.11]	[17.07]	[13.02]	[13.89]

Source: *International Financial Statistics*

Note: In each cell the top value is the % of a countries' FDI in her GDP and the second value in [] is the country's FDI share (%) in total FDI volume of the selected economies.

*Shares averaged over 1981-2006.

Table 3. Trade Shares in World Trade

	1990	1995	2001	2006	Averages*
ASEAN	**5.10**	**8.39**	**5.75**	**5.82**	**6.26**
Indonesia	0.86	1.06	0.71	0.67	0.83
Malaysia	0.96	1.68	1.30	1.21	1.29
Philippines	0.35	0.99	0.54	0.42	0.58
Singapore	1.96	3.02	1.93	2.11	2.26
Thailand	0.97	1.50	1.03	1.07	1.14
Vietnam		0.12	0.24	0.34	0.23
SOUTH ASIA	**1.09**	**1.17**	**1.18**	**1.66**	**1.27**
Bangladesh	0.07	0.09	0.12	0.11	0.10
India	0.73	0.78	0.78	1.29	0.90
Pakistan	**0.20**	**0.20**	**0.20**	**0.19**	**0.20**
Sri Lanka	0.08	0.10	0.08	0.07	0.08

Source: *International Trade Centre* and *International Financial Statistics*
* average for 1990-2001

Turning to money market considerations, the East-Asian economies capture the lion share of the Foreign Direct Investment (FDI) in the region. In particular, Singapore, Malaysia, and Thailand rank top (Table 2). Furthermore, shares received by Singapore, Thailand, Malaysia, and India have consistently risen; India attracted 25 percent of the total FDI in 2006. Overall, Singapore has attracted more than 43 percent of all the FDI arriving in this area between 1981 and 2006. Pakistan on average has received only 2.7 percent during 1981-2006.

Finally, let us consider the position of our selected economies in world's trade. Pakistan has been maintaining its low share of 0.2 percent in the overall world's trade market (Table 3). Although, shares for Indonesia, Malaysia, and the Philippines have registered declines, still in absolute terms they are at least twice more than that of Pakistan. On the other hand, Singapore and India have shown promising growth post 2000 with India increasing its share overall by 0.5 percent and Singapore by 0.18 percent. Note that the tiny Singapore contributes 2.26 percent to the world's trade (!).

An analysis of the trade theme based on bilateral trade amongst our selected countries reveal that trade between South-East Asia and South Asia is weak. For example none of the countries in the South-East reach 5 percent trade share in Pakistan's books (Table 4). This pattern is replicated in other South Asian economies. Trade between eastern regions has however been historically healthy and remains strong.

Table 4. Bilateral Trade Dimensions Across Countries

	Pakistan		India		Bangladesh	Sri Lanka	Malaysia		Thailand		Indonesia		Singapore		Philippines		Vietnam
	2003	2006	2003	2006	2003	2003	2003	2006	2003	2006	2003	2006	2003	2006	2003	2006	2003
Pakistan			0.21	0.33	1.22	1.05	0.33	0.49	0.22	0.25	0.40	0.78	0.38	0.32	0.03	0.02	0.09
India	1.16	2.18			7.32	10.17	2.74	2.95	0.72	0.99	3.25	4.71	2.89	5.06	0.14	0.16	0.81
Bangladesh	0.81	0.00	0.86	0.00		0.14	0.29	0.00	0.16	0.00	0.35	0.00	0.47	0.00	0.03	0.00	0.03
Sri Lanka	0.48	0.00	0.83	0.00	0.10		0.21	0.00	0.09	0.00	0.24	0.00	0.35	0.00	0.01	0.00	0.03
Malaysia	3.05	1.93	2.34	2.02	1.97	2.77			4.53	5.20	5.70	8.06	25.12	23.25	3.18	1.68	2.82
Thailand	1.63	1.58	0.96	0.93	1.76	1.51	3.92	3.73			4.65	5.95	7.70	7.61	1.60	1.16	3.53
Indonesia	1.25	1.70	1.83	1.53	1.65	1.69	37.24	34.21	1.96	2.07			13.56	13.05	0.41	0.59	2.06
Singapore	2.38	1.77	3.21	4.21	4.44	4.79	22.63	20.89	6.42	6.76	26.88	33.31			3.71	2.73	7.56
Philippines	0.15	0.18	0.41	0.20	0.06	0.13	1.32	1.09	1.53	1.34	1.57	1.74	3.63	3.31			1.07
Viet Nam	0.17	0.00	0.26	0.00	0.09	0.12	1.00	0.00	0.86	0.00	1.19	0.00	2.20	0.00	0.31	0.00	

Source: *International Trade Centre* and *International Financial Statistics* and Authors' estimates on Trade [=(Country i, Country k)/(Total Trade) (Country i)]

Based on the figures of current macroeconomic instability and low levels of trade above, Pakistan will find it difficult to sustain integration with its South-East Asian neighbors. The uncoordinated fiscal and monetary policy regime creates a situation in which it is difficult to arrest the underlying dynamics of trade and budget deficits. These directly and indirectly affect the trade patterns and the short-term competitiveness in the world market. Moreover, political instability creates a climate of uncertainty about the direction in which the country will go. For Pakistan therefore political uncertainty and macroeconomic instability are capable of eroding the potential benefits from integration.

3. The Long-term View with Specific Focus on Pakistan

It is both interesting and challenging to figure out how countries grow and produce more output. Understandably, output is the fruit of labor, capital, and land amalgamated together. Let us set land aside for a while since its price may be one of the determinants of volatility and also the data on prices has availability constraints. Then we are left with labor and capital. Thus, more the people there are the more they produce and the more capital we need to equip labor. But there is more to it. Labor needs the know-how to interact with capital, which is either acquired through training or experience (trained labor is human capital). In other words, to produce more output we need capital and an able workforce.

Can we continually equip labor with capital to generate output? Not really because with each extra unit of capital, labor will have increasing difficulties to utilize the extra unit. This is known as the law of diminishing returns. So we need a growing labor force to escape? Not exactly, because we have examples of countries in which labor force grows very slowly, such as Japan and Scandinavian Countries. Will their growth come to a halt? These economies continually reinvent themselves by adopting new ways and techniques to produce more with same amount of labor (for example internet and mobile-phones). They seek to make their labor more productive through time. This is known as Total Factor Productivity (TFP). There is a good reason why Einstein said that "Imagination is more important than knowledge." Where does TFP come from? It comes from developing methods and tools that produce output at a faster pace.

In the long run therefore growth in capital, trained labor, and TFP are sufficient condition for economic growth. However, TFP growth is necessary for permanent economic growth. Let us now consider how the picture looks for South-East Asian economies on this front with focus on Pakistan and explain why Singapore is special. Consider a very long term perspective and generally compare Pakistan with South-East Asian neighbors during 1985-2007. Then we will focus on 2000-2007; that is, the new millennium.

Assuming that all economies have constant returns to scale technology and using Solow's factor decomposition tool, Table 5 presents the average contributions to economic growth of capital, human capital, and TFP during 1987-2007 and 1999-2007 respectively (where all the measures are in per capita terms).[1] One clear fact that emerges is that South East Asian economies seem to have been in a phase of factor accumulation. Singapore aside, the accumulation of capital explains more than 50 percent of their economic growth (that is, output growth). On the other hand, human capital explains 1/3 followed by TFP. Surprisingly, the reverse is true though for the best performing economy by any measure in the region; that is, Singapore that has experienced the highest average per capita growth rate of 8 percent in the region for the last 20 years. Indeed, for Singapore per capita TFP explains 45 percent of growth, per capita human capital 38 percent followed by per capita capital accumulation taking only 17 percent. This analysis seems to suggest the story we chalked earlier. A policy blend that promotes TFP growth together with human capital formation is what brings long term success. This story

[1] The methodology for Human capital and TFP computation is available from authors on request.

Table 5. Economic Growth

	Growth	GFC[1]	HC[2]	TFP[3]
1985-2007				
Indonesia	0.04	0.53	0.10	0.37
Malaysia	0.05	0.41	0.15	0.44
Philippines	0.02	0.58	0.28	0.14
Thailand	0.06	0.68	0.07	0.25
Singapore	0.06	0.24	0.28	0.48
Pakistan	**0.03**	**0.62**	**0.32**	**0.06**
India	0.04	0.77	0.10	0.13
Sri Lanka	0.05	0.42	0.15	0.43
Bangladesh	0.03	0.62	0.15	0.16
1999-2007				
Indonesia	0.04	0.62	0.01	0.38
Malaysia	0.04	0.38	0.01	0.60
Philippines	0.03	0.88	0.05	0.07
Thailand	0.04	0.93	0.06	0.01
Singapore	0.04	-0.07	0.82	0.25
Pakistan	**0.04**	**0.62**	**0.32**	**0.05**
India	0.06	0.79	0.02	0.19
Sri Lanka	0.04	0.79	0.05	0.16
Bangladesh	0.03	0.64	0.02	0.34

Note: Per Capita Share in Economic growth of: 1. Growth in gross fixed capita, 2. Growth in Human Capital and 3. Total Factor Productivity.

is also really the long-term story of the West and the secret ingredient is the amalgamation of TFP and human capital.

If we recognize the importance of TFP and human capital then it would be wise to consider the direction in which we are heading in terms of these two variables in the new millennium? Are we making the right investment? Let's do the analysis again but for 2000-2007. To present the analysis, we use the second part of Table 5 by dividing all the relevant figures with that of Singapore so that all the variables are relative to Singapore's. In comparison with Singapore, it appears that per capita TFP in Pakistan is not playing any significant role in explaining economic growth (Figure 1). Instead, Figure 2 reveals that capital accumulation over the last seven years towers that of Singapore (13 times more than in Singapore) and is in fact the highest in the South-East Asia; even greater than India. Moreover, Pakistan's human capital now plays an even smaller role in explaining growth than it used to (Figure 3). In Figure 4 we plot the contribution of capital accumulation and TFP in all economies relative to that of Singapore's. There appears a strong negative association between high capital accumulating economies and productivity growth.

Figure 1. Total Factor Productivity 2000-07

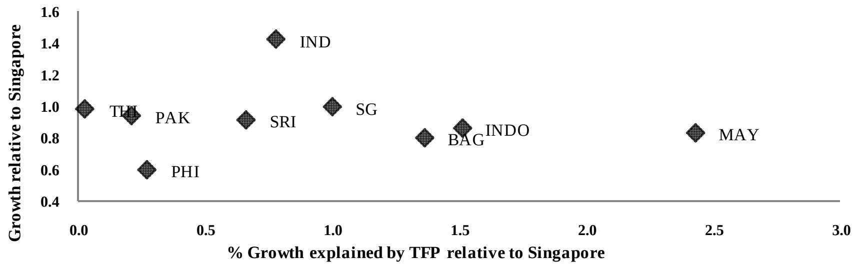


Figure 2. Capital Accumulation 2000-07

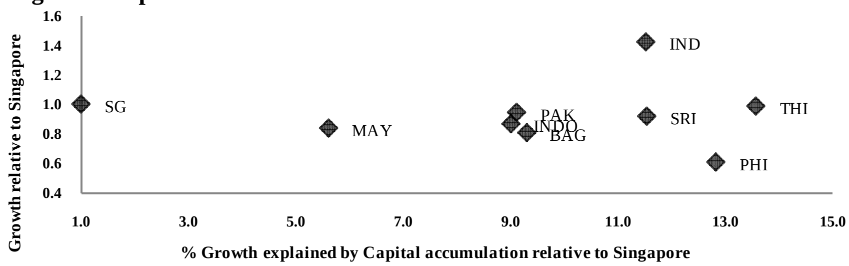


Figure 3. Human Capital 2000-07

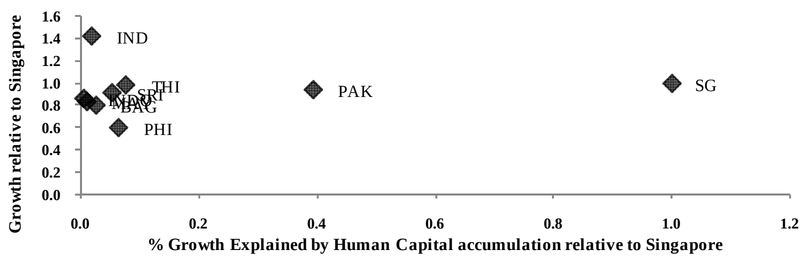
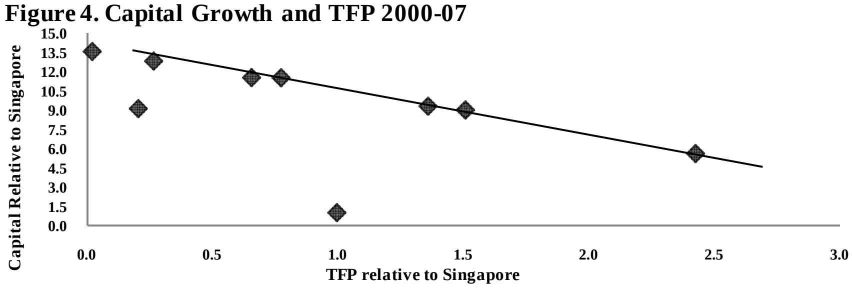


Figure 4. Capital Growth and TFP 2000-07



BAG: Bangladesh; IND: India; INDO: Indonesia; MAY: Malaysia; PAK: Pakistan; PHI: Philippines; SG: Singapore; SRI: Sri Lanka

To summarize, there is an apparently over reliance on buying lots of capital to equip labor that is in fact ill-equipped to use it. Furthermore, very little effort has been made to develop and absorb new technologies from leading countries and defy the law of diminishing return. There might be a small boost to economic growth by attaining more per capita capital but that will only last temporarily and that is the current path of Pakistan, Bangladesh, and Sri Lanka. Long term economic growth is not sustainable. Singapore, on the other hand, seems to be on the opposite strategy which is why it is special.

4. Conclusion

In this short note we have demonstrated that Pakistan's integration with the South-East Asian economies is not sustainable. Two main reasons are in the vanguard: short-term macroeconomic instability and an unsustainable long-term growth pattern. The latter is mainly due to the lack of gains in TFP.

How can we fix this problem? There is no short-term fix. First, there is a grave need to develop a long-term strategy which emphasizes on human capital accumulation of the kind needed to develop key skills in the labor market, the skills that help it absorb and enhance new technologies at the workplace. For example, it is well known that private and social returns to primary and secondary education are far greater than higher education. This is where differences can be made in terms of investment and the quality of delivery. Furthermore, training labor (in or out of workplace) is an area which has received scant attention from policymakers. Renewed effort in this area can lead to boost TFP a great deal in the future. Second, innovation, whether technological or managerial, needs to be promoted and protected so that incentives are aligned properly. For example, a credible copy-right agency is the way forward to assist researchers and idea-makers to come forward and identify clever ways of producing more with less.