CHAPTER FOUR

Why Has Pakistan Not Reaped Its Demographic Dividend?

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A seminal article by Durr-e-Nayab (2006) showed that Pakistan was passing through a demographic transition, which in turn could yield a demographic dividend. The article marked a turning point in the way population and labor force issues were treated in the broader context of the country's development prospects, economic plans, and growth strategy. Until now the fast-growing size of the population and labor force were viewed mainly as a major impediment to Pakistan's economic growth prospects, absorbing precious resources and adding pressures to an already overcrowded labor market, with resulting rises in unemployment and poverty. Nayab's analysis shifted attention to how to take advantage of the window of opportunity that the demographic dividend now offered.

Nayab showed convincingly that starting in the late 1980s the growth rate of Pakistan's working-age population (15–64 years) was faster than the growth rate of the dependent population (less than 15 years and over 64 years). The resulting reduction in the dependency ratio and the increasing share of youth (15–24 years) in the labor force would stimulate growth in two ways. The first was through the "youth bulge." Young entrants were better educated and more highly skilled than the existing labor force and,

if productively employed, would stimulate both productivity growth and overall growth in the economy. Second, the decline in the dependency ratio would reduce household consumption, resulting in increased household savings and investment. A smaller family size would also encourage women to seek employment in the labor market. A later study by the Population Council (2009) largely affirmed these favorable developments accruing from the demographic dividend.

Yet both Nayab and the Population Council study had struck an important word of warning. The demographic dividend must be viewed as an "opportunity" which, if realized, could lead to higher productivity and economic growth. But the same dividend could also turn into a demographic "disaster" if the large numbers of young people entering the labor market are not productively employed.

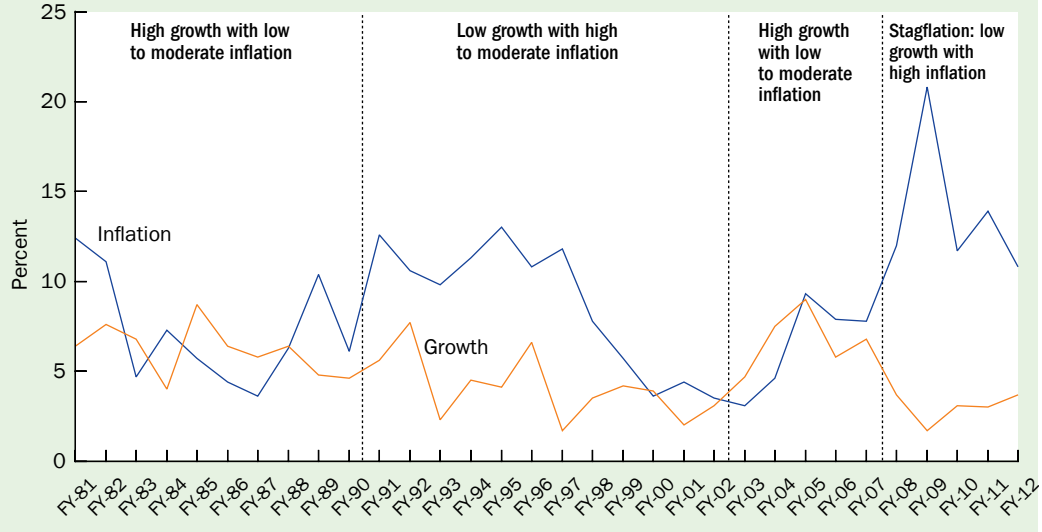
More than two decades have passed since the advent of the demographic dividend. The time has come to assess whether Pakistan has indeed benefitted from the demographic dividend, which is forecast to continue till 2040. And if not, what are the reasons for this failure? Most important, if Pakistan has so far not taken advantage of the opportunities the demographic dividend offers, what policy measures and steps are needed to enable it to do so?

Economic performance and demographic change

Pakistan's macro-economic performance 1980–2011

An analysis of Pakistan's macroeconomic experience post-1980, illustrated in Figure 4.1, shows no significant departure from the typical stop–go economic growth cycle

FIGURE 4.1 **Pakistan's macro-economic performance 1980–81 to 2011–12**



SOURCE: Amjad, Din, and Qayyum (2011), updated post-FY 2008 (Pakistan Economic Survey, 2011–12)

that Pakistan has witnessed since the 1950s (Ahmed and Amjad 1984; Amjad, Din, and Quayyam 2011; McCartney 2011). The Planning Commission's (2011) Framework for Economic Growth in Pakistan points out that, between 1972 and 2010, Pakistan's economy grew at an average annual rate of 4.9 percent, but that this growth was sporadic and shows a declining trend (p. 18). It also reports that Pakistan's rates of investment and domestic savings are substantially lower than those of its neighbors, averaging only about 17 percent and 12 percent of GDP during 1971–2009, and that these rates also show signs of decline (p. 20).

The situation regarding productivity is similar. During the period 1960–2005 almost 80 percent of Pakistan's GDP growth was due to an increase in capital and labor inputs and only 20 percent to total factor productivity (TFP).[1] TFP has also fluctuated, explaining 38 percent of GDP growth in the 1980s, a mere 18 percent in the 1990s, and around 22 percent during 2001–2005 (ibid., p. 38). Again, in the last five years it must have declined sharply given the rapid deceleration of economic growth (Figure 4.1). At the sectoral level, during the 1990s TFP in manufacturing grew by only 1.6 percent and over 1998–2007 by 0.9 percent, again pointing to the fact that growth was driven only by a rise in inputs (Chaudhry 2009).

On the basis of the economic growth experience post-1990, there is very little suggestion of any shift or sustained improvement in the key macro-economic indicators, as should have taken place if Pakistan had witnessed a demographic dividend. Indeed, actual performance suggests that except for a brief growth spurt during 2002–06 the overall trend of key macro-economic variables since the advent of the demographic dividend has been downward.

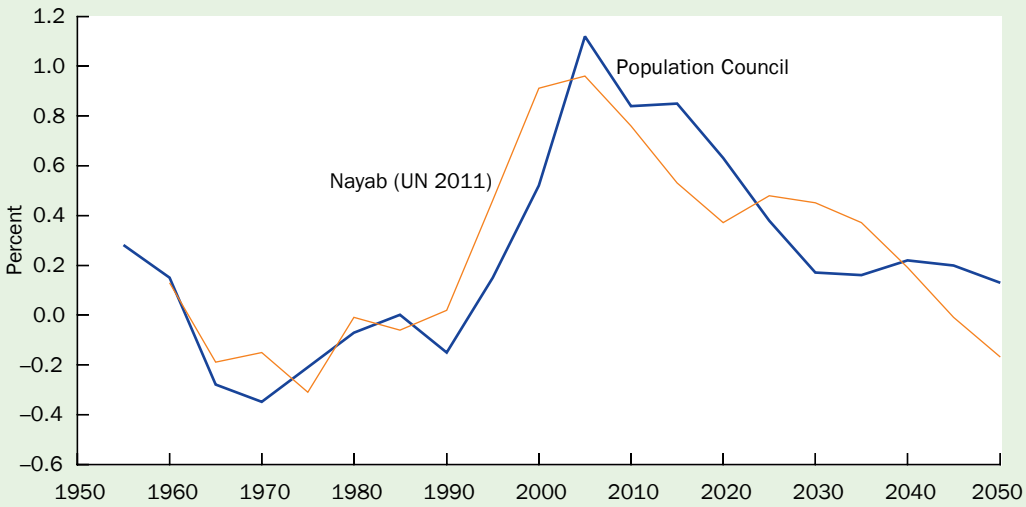
Pakistan's delayed demographic transition and dividend

Pakistan's most recent Population Census was held in 1998, and current population projections (including those in other chapters in this volume) are based on sample fertility and other related surveys. These also form the basis of projections of the population age structure under different scenarios (high, moderate, and low) of changes in the fertility rate.

In 2010, the government revised its estimates of the annual rate of population growth from around 1.8 percent to 2.1 percent as part of the analysis conducted for the preparation of the Tenth Five Year Plan (2010–15)[2] (GoP 2012). The government also postponed the Population Census, originally planned for 2010, because of floods and security concerns. The pre-Census Enumeration Survey was conducted in early 2011, but the Census itself has been postponed again.

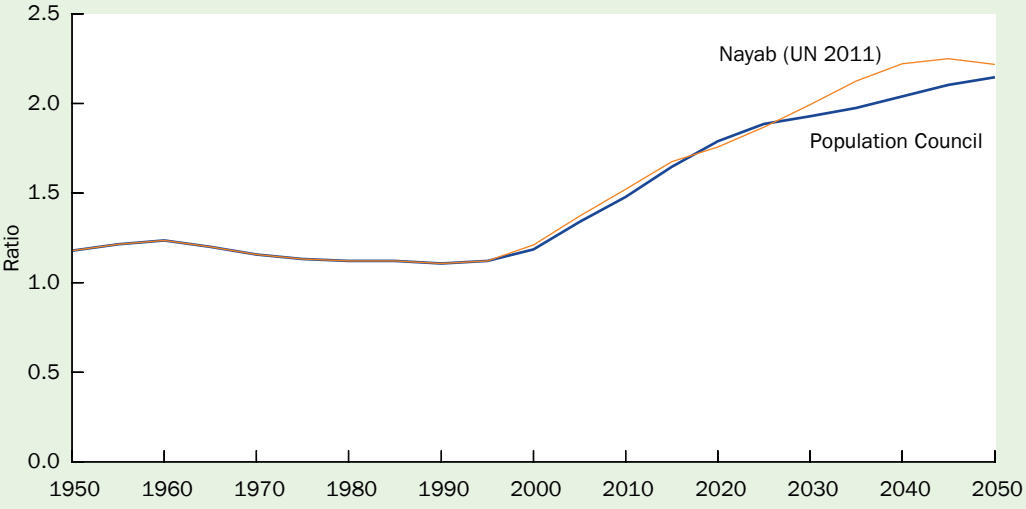
Figures 4.2 and 4.3 show the expected size and duration of the demographic dividend based on two alternative estimates. These include revised estimates by Nayab (2006) based on the UN 2010 Population Projection (UN 2011) and the Population Council estimates presented in Chapter 2. The updated projections show that the demographic dividend started not at the end of the 1980s, as Nayab (2006) earlier proposed, but was delayed to the early or mid-1990s.[3]

FIGURE 4.2 Percentage growth of working-age population minus percentage growth of total population



SOURCE: Population Council (2011): Chapter 2 in this volume; Nayab (2006) updated with UN (2011).

FIGURE 4.3 Ratio of working-age population to non-working-age population



SOURCE: Population Council (2011): Chapter 2 in this volume; Nayab (2006) updated with UN (2011).

Is the demographic dividend sufficient for stimulating growth?

Is the effect of the demographic dividend on economic growth dependent on the prevailing economic conditions in a country? The literature on this appears divided. A recent IMF study on the demographic dividend based on evidence from Indian states by Aiyar and Mody (2011) states that, "unlike Bloom and Canning (2004)[4] we do not find the

demographic dividend to be conditional on specific policies or social environments" (p. 7). Their empirical analysis implies that a substantial fraction of the growth acceleration that India experienced since the 1980s—sometimes ascribed exclusively to economic reforms—was attributable to changes in the country's age structure. Aiyar and Mody further claim that the demographic dividend could add about 2 percentage points per annum to India's per capita GDP growth over the next two decades.

There is a growing realization that one needs to be careful in drawing conclusions from country experiences or from larger cross-country regression techniques that pool data. This is because, given such results, it is difficult to specify the conditions under which demographic variables contribute to economic growth.[5] Therefore while Pakistan's neighbors, India and Bangladesh, appear to have reaped the demographic dividend in terms of higher economic growth, the question of why Pakistan has failed to do so becomes all the more pressing.

Why has Pakistan not benefited from the demographic dividend?

We now explore a number of possible reasons why Pakistan has not benefited from the demographic dividend.

Sustained growth in employment is a necessary condition for realizing the demographic dividend

From the early 1990s until now, Pakistan has been for the most part under the aegis of an IMF support program to overcome severe balance-of-payments constraints (leading to a possible default on foreign borrowings). The resulting stabilization programs severely constrained growth of aggregate demand, primarily through a combination of cuts in the federal PSDP (Public Sector Development Programme) and monetary squeeze through curtailing bank lending and high interest rates. These episodes of fiscal and monetary tightening, together with recent supply shocks (energy shortages), have resulted in low economic growth for most of the last 20 years. The exception has been the spurt of economic growth post-9/11, which peaked in 2005 before collapsing in 2008 (see Figure 4.1).

The last two decades witnessed a number of circumstances detrimental to Pakistan's economy. The nuclear explosion in 1997 led to a suspension of donor support, which resumed only in 2002. In 2010 Pakistan witnessed a flood of epic proportions that displaced 20 million inhabitants and caused an estimated loss of about US$10 billion (almost 7 percent of GDP). The unprecedented increase in global commodity and oil prices in 2007, the global economic meltdown in 2008, and continuing global recession have also had a major impact on Pakistan's economy, as they did for many other developing countries. Severe energy shortages post-2007 have also shaved off 1.5 to 2.0 percent of Pakistan's GDP.

Can we therefore conclude that the combination of these factors explains Pakistan's failure to reap the demographic dividend? The World Bank (2012) supports this contention, stating that Pakistan's "growth has been volatile around a broad declining trend" (p. 54). This is in contrast to Bangladesh and India, which have grown rapidly as a result of improved policies and could continue to benefit from their demographic dividend.

There is therefore merit in the assertion that Pakistan's poor economic performance in recent years has had an adverse impact on realizing the expected gains of the demographic dividend. These findings do not support the contention of the previously cited study for India (Aiyar and Mody 2011) which suggested that the demographic dividend alone can accelerate economic growth.

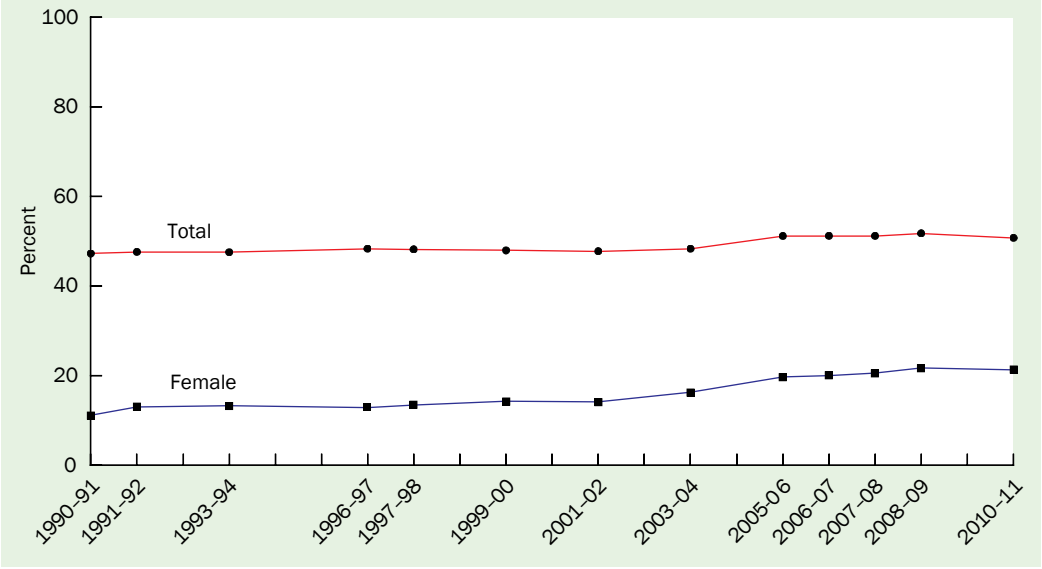
It has been rightly emphasized that for Pakistan to reap the gains of the demographic dividend, it is necessary to create productive employment opportunities for the new entrants into the labor force. An equally interesting question is whether the new entrants into the working-age population actually enter the labor force and find productive employment. With still only around 20 percent of females in the working-age population in the labor force, can one assume that more will enter the labor force if job opportunities were made available? The answer to this question is not obvious. Female labor market behavior needs to be examined in a much broader socio-economic context than simply the availability of job opportunities.

A study for the Asian Development Bank on competitiveness and structural transformation in Pakistan (Felipe, 2007) analyzed trends in per capita income by decomposing it into the product of the employment-to-population ratio and labor productivity. Its findings on the former were that Pakistan had experienced falling employment absorption capacity, as the ratio of employment to the working-age population had declined during 1973 and 2002 from 56 percent to 48 percent.

More recent data on the ratio of employment to the working-age population show that after remaining constant at around 47 to 48 percent between 1990 and 2004, the ratio increased to 51 percent post 2005–06 and remained around that level before declining slightly in 2010–11 (Figure 4.4). This improvement is mainly due to a doubling of the ratio of employment to working-age population of females from 11 percent in 1990–91 to 21 percent in 2010–11. While this increase is a positive development, it is primarily caused by an increase in non-agriculture employment post 2001–02 until 2005–06, the years of economic recovery and high growth, as males moved out of employment in agriculture.[6] However, much of the increase in female employment was in the category of unpaid family workers, mainly in livestock.

Why do the majority of women continue to remain outside the labor market? A study conducted in Faisalabad district (Ministry of Labour and Manpower 2009), a prosperous region in Punjab province, provides some insights. The major reason given by females aged 15–29 for not entering the labor market was personal or family responsibilities (67 percent), while only 3 percent of males cited this reason. The next major reason was attending education or training (28 percent) while for males this was 91 percent. The proportion reporting the inability to find suitable work as the main reason was less than one percent for females. These results clearly suggest that it was not the lack of jobs but other personal and family factors that were responsible for females not entering the labor market.

FIGURE 4.4 Proportion of the total working-age population (15–64) employed and proportion of working-age females employed



SOURCE: Labour Force Survey (various issues).

The continuing low ratio of employment to working-age population means that each working man and woman still had to provide for nearly two non-working persons in 2010. This dependency ratio is much higher than the South Asian average and will remain high in the absence of a substantial increase in female participation rates. The dependency ratio for low-income countries averaged 1.2 in 2005.[7]

Low re-allocation of labor to higher-value-added sectors

After 2007–08, owing to crippling energy shortages, there has been little growth in the manufacturing sector, especially the labor-intensive small- and medium-size enterprises. However, growth has been stimulated in the rural areas owing to a strong pro-rural bias in government policies (e.g., substantial increase in procurement prices of wheat to reflect world prices). These developments have further setback movements to higher-value-added sectors especially manufacturing.

A study by Felipe (2007) indicates that the share of industry in employment has remained flat (at around 20 percent) post-1980, implying that the higher-productivity sector of the economy had not generated sufficient new jobs to raise overall productivity. Industry's share of employment has continued to stagnate at around 20 percent between 1990 and 2010, with manufacturing also stagnating at around 12 percent over this period (see also Table 4.1).

These findings are reinforced by the World Bank (2012), which also analyses the contribution of labor movement across and within sectors to annual growth in total fac-

TABLE 4.1 Sectoral composition of GDP and labor force (percent)

Sector	GDP			Labor force (10 years and above)		
	1990–91	1999–00	2009–10	1990–91	1999–00	2009–10
Agriculture	25.7	25.9	21.2	47.5	48.4	45.0
Industry	25.8	23.3	26.4	19.8	18.0	20.9
Manufacturing	17.5	14.7	18.6	12.2	11.5	13.2
Services	48.6	50.7	52.4	32.8	33.6	34.1

SOURCE: Pakistan Economic Survey and Labour Force Survey (various issues).

tor productivity in Pakistan and its South Asian neighbors. Table 4.2 shows that while re-allocation of labor across sectors played a role in driving TFP in Pakistan, its actual contribution was lower than in India.[8] The table indicates not only that growth of TFP has been much lower in Pakistan as compared to India, but also that TFP growth in the services sector has been dominant in propelling this growth in India.

Low levels of education and skills in the labor force

A binding constraint on Pakistan's economic growth prospects has been the low level of education and skills of its work force. In 2010–11 one-third of the youth labor force was still illiterate and possessed very low levels of technical education (Table 4.3). Pakistan, it has been argued, is stuck in a "low-level skills equilibrium trap" which severely restricts its move into higher-value-added sectors essential to raising productivity and increasing economic growth (Amjad 2005). The continuing low level of investment in the education sector will have deleterious consequences for the education levels of the working-age population for years to come. Pakistan's very low level of investments in education and skills, which has fallen in recent years to less than 2 percent of GDP, the poor quality of education imparted,[9] and lack of sustained growth act as important barriers to Pakistan's potential success in reaping the demographic dividend.

TABLE 4.2 Sources of annual growth in total factor productivity in Pakistan and India by sector and re-allocation effect

	1990–2000		2000–08	
	Pakistan	India	Pakistan	India
Re-allocation	0.2	0.3	0.3	0.5
Services	0.2	1.2	0.4	2.2
Industry	0.4	0.3	0.4	0.6
Agriculture	0.1	0.4	0.1	0.3
Total	0.8	2.2	1.2	3.6

SOURCE: World Bank: *South Asia Development Matters – More and Better Jobs in South Asia,* 2012, The World Bank, Washington D.C.

TABLE 4.3 Distribution of labor force by level of education (among those aged 15–24)

Years	Illiterate	< Primary	Primary	Middle	Matric	Inter-mediate	BA+	Total
1990-91	53.0	5.0	16.7	10.9	9.6	3.0	1.7	100.0
2001-02	36.7	5.4	20.3	15.9	14.6	4.7	2.3	100.0
2010-11	35.3	4.6	21.4	16.4	13.8	5.3	3.3	100.0

SOURCE: Labour Force Survey (various issues)

Pakistan's poor youth profile ("youth bulge")

In a world with a fast-growing aging population, Pakistan's large young population can prove to be a dynamic engine of economic and productivity growth. In 2005 almost 60 percent of the population was less than 25 years old—i.e., around 90 million people. Almost 40 percent of these were below 14 years of age, and nearly 30 percent of the labor force was in the 15–24 youth age group.[10] Are the young entrants into the labor force contributing to the growth of the country's economy? Clearly the earlier discussion on the macroeconomic performance of the economy shows no evidence of this. Why is this contribution not taking place? Has the high unemployment rate among the young prompted potential workers to opt out of the labor market because available jobs do not match their expectations?

Youth unemployment in Pakistan, as is the case globally, is much higher than the average unemployment rate (ILO, 2010). Sparreboom and Shahnaz (2007) show that the share of female youth who are neither in education nor economically active was extremely high at 72 percent in 1999–2000. This proportion declined to 63 percent in 2005–06, but has increased slightly in subsequent years. Hou's (2010) study on challenges for youth employment in Pakistan makes the striking observation that not only is the unemployment rate much higher for better-educated youth, but "the initial earnings of better-educated youth are not very different from those of less-educated youth, as compared to wages for adults with similar education levels" (p. 209).

Have these difficulties in finding employment opportunities that match their expectations and the low returns on education led the young (especially females) to continue to join the ranks of discouraged and unemployed workers as well as to seek employment opportunities abroad? A recent study by the IMF (Kock and Sun 2011), which examined the rapid increase in remittances over the past decade (from just over US$1 billion in 2000–01 to an expected US$13 billion in 2011–12), finds for the period 1997–2008 that both the numbers of Pakistanis going overseas for work and the skill levels of these immigrants have increased. Since a large proportion of migrants are relatively young, one must ask whether better-educated and highly skilled young people are leaving the country in disproportionately high numbers. While evidence is scarce, this is a topic for further investigation. If true, then the expected spurt to economic growth from the "youth bulge" may be coming only in the form of much higher levels of remittances (in recent years around 5 percent of GDP) rather than in increasing economic growth.

How Pakistan can still reap the demographic dividend

Pakistan has lost precious time in reaping the demographic dividend, which started some 15 to 20 years ago. But it is still not too late to do so, as the window of opportunity could last for another 40 years when the youth bulge gives way to an aging population. While the economic gains may so far be missing, there is an air of rising expectations as the young cohorts become more visible and assertive. The previous analysis clearly identifies and strongly dictates key areas where action is needed.

Breaking out of stagflation and into sustained growth

It would appear that in Pakistan the demographic dividend can serve as a "tail wind" that can accelerate whatever economic growth occurs. But such growth appears to be a necessary precursor to attaining the demographic dividend.

In the short term, key measures include overcoming or substantially reducing energy shortages, reducing the budget deficit to a more prudent level (to around 4 percent from the current 7 to 8 percent), raising revenues by introducing VAT (R-GST)[11] and taxing untapped sectors, namely agricultural incomes and services, and exploiting new export opportunities to ensure a healthy trade balance.

The key, both in the short and medium term, is reviving business confidence to substantially increase investment levels, which have fallen to the extremely low level of 12 percent in 2011–12 (GoP 2012). This requires improving the security situation, ensuring better economic management, and reducing corruption. Political will, based on consensus among major political parties, is essential to undertaking economic and tax reforms, tariff reduction, and restructuring in major public-sector enterprises.

The federal PSDP has also been cut drastically in recent years to restore macro stability, from over 5 percent of GDP in 2005–06 to close to 2 percent in 2011–12, and this decrease is negatively affecting economic growth and job creation. To raise this to earlier levels requires increasing revenues from the low tax-to-GDP ratio of less than 9 percent in 2010–11 (the average for developing countries is almost double this amount) to 15 percent by 2015 and reducing non-development expenditure.

The bold steps being undertaken by the government to expand Pakistan–India trade can provide a much-needed outlet for economic growth. They will also have a positive impact on rebuilding confidence in Pakistan's economy. While estimates vary widely as to the potential trade gains if India were granted most-favored nation status by Pakistan and if India reduced non-trade barriers on Pakistan exports, the overall impact could be substantial.[12]

To enable the private sector to serve as the main engine of growth requires a conducive economic environment and an attractive incentive structure that eliminate or significantly reduce bureaucratic interferences. Only in such an atmosphere will entrepreneurship and business flourish.

Creating more and better jobs for women and men

Pakistan's labor force is currently growing at around 3.5 percent annually. Based on historical elasticity of 0.45, Pakistan would need growth at around 8 percent per annum to

absorb the increase in the labor force alone.[13] It would need to grow faster if unemployment (6 percent in 2010–11) is to be also reduced.

Given Pakistan's lack of effective social protection systems or safety nets, many people are forced to seek employment at very low wages and under hazardous working conditions. The challenge is creating not just *any* jobs, but *better* jobs. A workable definition of such jobs in Pakistan is one adopted by the World Bank (2012), which calls for an increase in real wages and a decline in poverty of self-employed workers or family helpers.

Future engines of job creation in Pakistan will be: (i) the spread of urbanization, especially much-needed growth of medium-sized and new urban centers; (ii) modern services (especially ICT, banking, hotels, and restaurants); and (iii) agro-based manufacturing and food chains, given the enormous potential for productivity growth in the crop sector and the potential in the livestock sector. Growth of much-needed physical and social infrastructure (education and health sectors) will also pay a major role.

A key factor in ensuring remunerative and productive employment opportunities is ensuring mobility of labor both from rural to urban areas and across and within sectors. This requires a smooth-functioning labor market and availability of skills in demand, with better-educated and more skilled labor earning higher returns (World Bank 2012).

Empowering women, reducing gender disparities, and increasing female employment

For Pakistan to reap the demographic dividend, it is essential to increase the still very low labor force participation rate for women. As we have seen, most women in the working-age population do not seek employment in the labor market because of what they term personal or family responsibilities. To change this circumstance would require action and progress on three fronts: (i) increasing education levels starting at the primary and secondary level, especially in less developed regions; (ii) reducing the burden of household work, which adds on average an extra four to five hours of daily work for both non-working and working females (Saqib and Arif, 2012); and (iii) empowering women to reduce gender disparities and breaking down traditional mindsets through pro-active policies and interventions, including reservation of jobs in the public sector and higher grade positions.

Some positive signs are emerging in both rural and urban areas. As men move out of agriculture, women move in to take their jobs, especially in the livestock sector. In higher education, which has expanded rapidly post-2000 from around 300,000 total enrollment to just over 1 million in 2012, the female percentage is only slightly lower than that of males. Women are becoming prominent as entrepreneurs, in management positions, in the media, and in traditional education and social sectors. These changes are generating a momentum of their own—as prominent role models emerge—that will hopefully lead to a major increase in women's LFPR in coming decades.

Profiting from the "youth bulge": Investing in education and skills

Only an educated and skilled work force can allow Pakistan to reap the demographic dividend and to compete and prosper in a highly competitive global economy. Pakistan needs

to invest far more in education. The public sector has failed to deliver the numbers and quality in both primary and secondary education. On the other hand, the performance of private-sector schools has been somewhat better.[14] There is a need to identify how the government can support provision of primary and secondary education by the better-performing private schools, while ensuring access to children of poorer households through subsidies, including vouchers. The government still confronts the challenge of delivering quality primary and secondary education where the private sector is unwilling to do so.

Regarding formal skills training and skill certification, the lack of availability of skills in Pakistan is not just a supply-side problem. The increasing use of contract labor and the unwillingness of employers to pay higher wages for skilled workers are major demand-side disincentives.

Conclusion

It is perhaps overly optimistic to expect that economic gains will become visible at the very start of the demographic dividend. But in the case of Pakistan the dividend appears to be long overdue. Much time has been lost. But with better economic management and needed reforms that could re-ignite growth, the demographic dividend still holds the potential for Pakistan to enter a phase of much higher economic growth, which can also reduce poverty and improve living conditions. The "youth bulge" can usher in a "youth revolution" which can change the destiny of the country.

Notes

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1 Growth in productivity can be attributed to growth in physical capital per worker or labor (i.e., human resources including education). What cannot be explained by this increase in inputs alone is attributed to more effective use of these inputs, including through technical progress, and termed growth in total factor productivity.

2 The Tenth Five Plan (2010–15) being prepared by the Planning Commission was put on hold, possibly because of unsettled economic conditions. The Planning Commission (GoP 2011) came up with a growth framework for Pakistan in 2011.

3 These projections are based on the medium variant of both UN (2011) and Population Council (2011) projections. If we opt for the high variant of these projections, then the onset of the dividend would be later.

4 Bloom and Canning (2004), on the basis of a cross-country analysis for 1965–95, demonstrated a substantial impact of the working-age ratio on economic growth but only when the economy is "open", i.e., when incentives are in place to exploit their potential (as cited in Aiyar and Mody 2011).

5 For example, Rodriguez and Rodrik (1999), examining the relationship between trade openness and growth based on cross-country results, argue that, "Research aimed at ascertaining the circumstances under which open trade policies are conducive to growth (as well as those

under which they may not be) and at scrutinizing the channels through which trade policies influence economic performance is likely to be more productive."

6 Labour Force Survey, 2010–11.

7 Based on World Development Indicators and cited in Amjad and Havers (2007: 7).

8 The contribution to total factor productivity of re-allocation was significantly higher in China and other South-East Asian economies as compared to South Asia (World Bank 2012).

9 See the most recent report on the state of education in Pakistan (ASER 2013).

10 See *UN Population Prospects: The 2010 Revision*, Population Division UN (2011) and Economically Active Population 2006 (ILO 2011).

11 Revised-General Sales Tax, as the Value-Added Tax is termed by the Ministry of Finance.

12 See Khan (2011).

13 This elasticity of employment is used in the Interim Report of the Panel of Economists (GoP 2008).

14 The recent Status of Education Report (ASER 2013) points out that lower-quality private schools are also producing very poor results compared to those seen in public schools.