

Population Aging, Immigration and Labour Market Outcomes in Developed Countries: Evidence from Literature

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Abstract: *The considerable heterogeneity exists in population aging across nations and among regions. Most developed countries have large elderly consisting of 20% of population aged 60+, which is projected to increase to more than 30% by 2050. Migration also plays a role in determining age structure as immigrants tend to be young workers in working age. Therefore, problem of population aging is viewed to be solved by changes immigration policy. There have been massive waves of migrants across the South and North in this 'age of migration', which is causing social and economic shocks in host countries. In 2013, 3.2% of world's population lives outside their country of origin and European countries host a large number of immigrants to tune of 72 million. The international migration is considerable in countries that experienced declines of fertility and rapid population aging. Europe has been attracting significant immigrant flows between 1.15 and 2.03 million per annum recently, which need a labour force due to its aging population. Overall, immigrants have been significant impacts on labour markets. Therefore, robust policy and institutional reforms should be implemented for the smoother transition of aging population and transforming challenges of an aging population into opportunities for demographic change.*

Keywords: *Population aging, Immigration, Labour Force, Labour Market Outcomes*

JEL Codes: *J11; J15; J18; J31*

I. INTRODUCTION

Population aging is likely to shape migration patterns (Zaiceva, 2014). An increase in the age of the active population and increased cohort of older workers may adversely affect labour market outcomes (Zimmermann, 1991; Winkelmann & Zimmermann, 1993; Bloom & Sousa-Poza, 2013). Aging also reduce labour mobility, increase unemployment and adversely affect productivity (Winkelmann & Zimmermann, 1993). However, the effects of population aging on economic growth are likely to be modest (Bloom & Sousa-Poza, 2013), whereas, immigration may have a rejuvenating effect (Zimmermann, 1991) in terms of growth and development (Bloom &

Canning, 2004; Bloom *et al.*, 2010; Bloom *et al.*, 2011). The population aging has been a prominent feature over the last half-century. The world's population has grown from 2.5 billion in 1950 to more than 7 billion today, which is projected to cross 9 billion by 2050 and 11 billion by 2100. Since 1950, youth population (0–14) has flattened, while the working-age population (15–59) has grown steadily in developing countries, whereas in more developed countries, population in 15–59-year-olds has been somewhat level and likely to decrease to around 50% by 2100. However, old aged population (60+ and 80+ age groups) is growing rapidly. For instance, people aged 60+ increased from 200 million in 1950 to around 760 million today and are likely increase to 1 billion, 2 billion and 3 billion respectively by 2020, 2050 and 2100 and the “oldest old” (80+) grew markedly from 14 million in 1950 to around 108 million today and projected to rise to over 900 million by 2100 with significant health implications (United Nations Population Division, 2015).

The considerable heterogeneity exists in population aging across nations and among regions. Most developed countries have large elderly consisting of 20% of the population aged 60+, which is projected to increase to more than 30% by 2050 (United Nations Statistics Division, 2014). The population aging will accomplice with changes in the sex ratio (Rogers *et al.*, 2010; Seifarth *et al.*, 2012). Among the elderly, females will continue to outnumber males, in both developed and developing countries up to 2100 (UN, World Population Prospects, 2015). The fertility decline has played a larger role in population aging (Weil, 1997; United Nations, 2001). At least 66% increase in the elderly population of United States (U.S.) is due to fertility decline (Weil, 1997). Migration also plays a role in determining the age structure as the immigrants tend to be young workers in working age. Therefore, the problem of population aging is viewed to be solved by changes the immigration policy (Bloom & Luca, 2016).

II. TRENDS IN POPULATION AGE AND INTERNATIONAL MIGRATION

The number of persons aged 60 years or over is projected to grow from 810 million in 2012 to more than 2 billion by 2050, with the number of older persons due to surpass children for the first time in history (UN, 2012). The old-age support ratio (which measures how many people there are of working age (20–64) relative to the number of retirement age (65+) is higher in less developed countries than more developed regions, and is projected to further decline in the latter by 2050. By contrast, the old-age dependency ratio (which is a ratio between elderly persons (65+) and the number of

persons of working age (generally 15–64) in the EU27 is projected to double by 2050 (European Commission, 2012). The aging problem is particularly acute in Europe and Japan and less so in the United States (US), where both fertility and immigration are higher. In Italy, for example, the fertility rate has declined to an unprecedented 1.2 children per female, while the share of pensioners is over 70 per 100 workers (Bloom & Sousa-Poza, 2013). Owing to the low fertility rate in most developed regions, net migration has become the main factor of population growth in the 28 current EU members. If these trends persist, net migration will solely account for the entire population growth in the developed world by 2050.

There have been massive waves of migrants across the South and North in this '*age of migration*' (Nijkamp *et al.*, 2011; Goldin *et al.*, 2011), which is causing social and economic shocks in host countries (Nijkamp *et al.*, 2012). In 2013, 3.2% of the world's population lives outside their country of origin and European countries host a large number of immigrants to the tune of 72 million (United Nations, 2013). Most immigrants are youth (24–49) often with a higher education and concentrate in metropolitan areas (Widmaier & Dumont, 2011). The highly skilled immigrants living in an OECD country has increased by 70% in recent past (Docquier & Marfouk, 2004). The international migration is considerable in countries that experienced declines of fertility and rapid population aging. Net immigration accounts for 40% of population growth in the United States and about 90% in the EU-15 countries (Howe & Jackson, 2006; Bijak, 2006). Numerous international migration studies focused on a single destination country such as the United States (Isserman *et al.*, 1985; Greenwood & McDowell, 1999; Clark, Hatton & Williamson, 2007), the United Kingdom (Hatton, 2005; Mitchell & Pain, 2003), and Germany (Vogler & Rotte, 2000).

The international migration is a key feature of a modern open society (Kourtit & Nijkamp, 2011; Massey *et al.*, 1993; Simon, 1999), who tends to predominantly concentrate in the metropolitan agglomerations of the developed world (Waldinger, 1989). Europe has been attracting significant immigrant flows between 1.15 and 2.03 million per annum recently (Eurostat, 2008), that need a labour force due to its aging population (Bos & Von Weizsacker, 1989; Lutz, O'Neill & Scherbov, 2003) and the lower fertility rates (the total fertility rate of the EU-27 declined from almost 2.6 in 1960s to about 1.4 until 2005 (Eurostat, 2008)). Therefore, immigrants have been significant impacts on regional labour markets (Kourtit & Nijkamp, 2012, Lalich, 2006; Longhi, Nijkamp & Poot, 2010; Waldinger, 1989), not only as employees but rather as entrepreneurs, creating businesses (Dana, 1993; Head & Ries, 1998; Wong, 2003; Wong & Primecz, 2011).

Gruber & Wise (2001), Borjas (2000) and Smith & Edmonston (1997) have examined the impact of population aging and increased immigration on U.S. labour markets. The annual rate of U.S. population growth will decline fairly steadily from 1% in the 1990s to 0.7% in 2050 (U.S. Census Bureau, 2000), which reflects the rapid aging of the U.S. population and a secular increase in life expectancy and the entry of the large baby boom cohort into normal retirement age between 2011 and 2030. Over the period, immigration has played a potent role in U.S. population growth, for instance, the foreign born accounted for 30% of total U.S. population growth recently and comprised about 10% of the U.S. population in the late 1990s. The post-2000 immigrants and their children will account for about 66% U.S. population growth between 1998 and 2100 (U.S. Census Bureau, 2000). The dependency ratio is likely to reach 0.73 in 2100 and immigration may ease high dependency ratio in the short run (Hollman, Mulder & Kallan, 2000).

Immigrants make up 16% of U.S. workforce and accounts for more than 50% increase in labour between 1996 and 2010, which will help offset the 80 million baby boomers retiring over the next two decades (Social Security Administration, 2012). The U.S. natives have a comparative advantage in communication-intensive work, whereas immigrants specialize in manual labour jobs (Peri & Sparber, (2009). The effect of immigration on the GDP is termed as "immigration surplus", which would be larger if migrants and natives were close substitutes (Borjas, 1995). The immigrants work for child care and housekeeping activities, thereby increasing the labour supply of highly educated native women for high productive tasks (Cortés & Tessada, 2011). Immigrants are relatively more mobile than natives and thus willing to relocate to where economic opportunity exists, thereby contribute to the economy (Borjas, 2001). The highly skilled immigrants play an important role in innovation (Hunt & Gauthier-Loiselle, 2010; Kerr & Lincoln, 2010; Hunt, 2011; Chellaraj, Maskus & Mattoo, 2008), who are more likely to start a business (Fairlie, 2008) and self-employment than natives (Orrenius & Zavodny, 2011). The empirical evidence indicates the adverse impact of immigrant flows on natives' wages and employment rates (Card, 2001; Ottaviano & Peri, 2012; Card & DiNardo, 2002) and if immigrants are complementary to natives, then efficiency gains from immigration may increase productivity and raise wages of natives (Peri, 2012). The high-skilled immigrants earn substantial incomes, thereby pay more taxes than public services enjoyed (Smith & Edmonston, 1997). A significant proportion of immigrant-headed U.S. households participated in public assistance programme compared with native-headed households (Orrenius & Zavodny, 2011).

The international migration is the dominant determinant of demographic change in developed countries, especially in Europe. For instance, within the 15 original European Union countries, the net demographic effect of international migration has been 1.4 to 1.9 million per annum, where net immigration far outpaces the rate of natural increase (Coleman, 2008). The immigrants tend to be mostly youth and thus increase the labour force in the receiving country (Zlotnik, 2012). Besides directly affecting the age structure and labour force, the immigrants may increase fertility in the recipient country (Blau, 1992; Coleman, 1994). For instance, the total fertility rate (TFR) increased from 1.63 to 1.86 in England and Wales from 2001 to 2006, and about two-third of increase in TFR is attributed to births of immigrant mothers (Coleman, 2008). Over the period, the children of immigrants move through the age structure and will reduce the proportion of elderly population. Thus, the policymakers have touted immigration as the panacea to population aging in developed countries. The younger immigrants also age, therefore, the immigration flows are required to maintain the age structure progressively over time. In order to maintain support ratios of the immigrants flows, a very large net migration flows are necessary. For instance, an average annual net inflow of 1.2 million immigrants would be needed in the United Kingdom to maintain the support ratio until 2050, which would hardly be sustainable (Shaw, 2001). In sum, migration has not been a major driver of population ageing. However, it is a sufficient to revitalize the aging societies with low fertility rates.

Labour migrants constitute an important share among all migrants in the United Kingdom (UK), whereas the majority of migrants in the US fall under family reunification, while humanitarian migration represents an important part in Canada, the Netherlands, Norway, and also the UK (OECD, 2007). Despite these measurement problems, it is estimated that the total number of international migrants has increased over the last decades, and reached 232 million persons in 2013, an increase of 57 million persons compared to 2000 (or from 2.8 percent of the world's population to 3.2 percent), 48 percent of whom are females (UN, 2013). At the same time, the number of those over 65 years old has reached 26 million, or 11.1 percent, among all international migrants, ranging from 13 percent of all international migrants in the developed regions to 8 percent in the developing ones, with Europe and Oceania reporting the highest shares: 14 and 15 percent, respectively (UN, 2013). The majority of international migrants move from less to more developed countries, with their distribution by age suggesting that, relative to the overall population, the largest shares are among the working age. The proportions of those over 65

is close to those in the working age, and these countries (together with Switzerland) represent regions with the largest shares of migrants over 65 in the overall population, reflecting historical migration patterns and earlier migrations as well as smaller shares of native elderly (UN, 2013).

Among the developed countries, the U.S. is the major migrant-receiving country in absolute terms, followed by Germany (Zaiceva & Zimmermann, 2008; Kahanec, Zaiceva & Zimmermann, 2010; Kahanec & Zimmermann, 2011). Several new EU member states (Romania, Bulgaria, Latvia and Lithuania) are likely to face serious demographic and economic challenges, accompanied by both low fertility and high out-migration (Zaiceva & Zimmermann, 2014). Migration represents the most problematic component of population projections (Coleman, 2008; European Commission, 2012). An annual net migration of even 2.2 million persons would not be enough to compensate a declining population of -3.4 million persons in the more developed regions by 2050 (UN, 2006). Accordingly, despite the potential importance of increasing immigration, it is highly unlikely to offset the large declining working age population due to the demographic shift. For example, according to earlier forecasts, net migration to Europe would need to increase fourfold to maintain constant the size of the working-age population (UN, 2006).

III. IMMIGRATION AND LABOUR MARKET OUTCOMES

Wages and employment differentials between sending and receiving countries are usually considered among the main push and pull factors (Kennan and Walker (2013). Migrant networks constitute relevant factor in the migration decision (Massey, 1990; Beine *et al.* (2011a, 2011b), Pedersen *et al.* (2008); Beine *et al.* (2011c; Plaza, 2013). Family considerations are also important (Sandell, 1977; Mincer, 1978). Migration may occur to improve the income situation of a household (Stark & Taylor, 1991). The skills distribution in the home country influence migration decisions (Borjas, 1987, Chiswick, 2000). The supply of migrants will be larger at younger ages (Borjas 1987), Chiswick (2000), Hatton (2005) and Clark *et al.* (2007). The emigration rate will be higher with a higher mean wage rate in the receiving country, a lower mean wage rate in the sending country, or lower mean individual-specific migration costs and fixed migration costs (Clark *et al.*, 2007; Mayda, 2010). At individual level, age has a negative impact on the migration probability (Bauer & Zimmermann, 1999; Zaiceva & Zimmermann, 2008). Younger individuals are found to be more likely to intend to move abroad (van den Berg & Weynandt, 2013) and older individuals are less likely to move (Zaiceva & Zimmermann, 2008). At the

aggregate level, size of the youth population is the key factor determining world migration (Hatton & Williamson, 2002, 2003; Clark *et al.*, 2004). Declining fertility and demographic shifts in the source country will affect the share of young individuals entering the labour market and likely diminish the emigration rate (Hanson & McIntosh, 2010) and future emigration (Hanson & McIntosh, 2009).

Low-skilled migrants are net beneficiaries of the welfare state in US (Borjas & Trejo, 1991; Borjas, 1999). Immigrants are distinct factor (Grossman, 1982) and imperfect substitutes of natives within skill groups (Borjas, 2003; Ottaviani & Perri, 2006). Immigration changes the industry structure, rather than the wage structure (Leamer & Levinsohn, 1995). The inflow of immigrants affects economic outcomes (Altonji & Card 1991; Hunt, 1992; Card 2001; Card & Lewis, 2005; Dustmann *et al.*, 2003), out-migration of native workers (Card & DiNardo, 2000; Card, 2001) due to wage-depressing effects of immigrants (Borjas, Freeman & Katz, 1997; Borjas, 2003) and correlated with shocks to local economic conditions (Dustmann, Fabbri & Preston, 2005). Immigrants affect local labour markets, however, the competition between immigrants and less-skilled natives is modest (Card, 1990; Altonji & Card, 1991) and the best substitute for an immigrant is another immigrant of the same cohort (LaLonde & Topel, 1991). There is no significant adverse effect of immigration on wages of natives (Butcher & Card, 1991). The individuals with similar education but different experience are not perfect substitutes but separate labour inputs and the immigration has substantially worsened the labour market opportunities for most groups of natives (Card, 2001) and reduced their wages and induced natives to exit the labour force and either shift to leisure or into illegal activities (Borjas, Grogger & Hanson, 2006; Borjas, 1987; Altonji & Card, 1991; LaLonde & Tope, 1991). In the high-skill sector, the inflow of foreign doctorates by 13.9% had reduced the wage of the average doctorate in science and engineering by about 3.6% (Borjas, 2006). However, Ottaviano & Peri (2006) reveals that the only native group suffering a negative wage effect is the least educated workers and all other native groups gained from immigration with wage increases.

The studies focusing on countries other than the U.S. reveals different labour market outcomes of immigrants. For instance, Hunt (1992) analyses the impact of a large immigrant inflow from Algeria into the French labour market and found that immigrant share of the labour force reduced the average wage by at most 0.8% and increased the unemployment rate of natives. Carrington & Lima (1996) evaluated the effects of the inflow of repatriates from Mozambique and Angola to Portugal and De New &

Zimmermann (1994) for Germany examined how far immigrant concentrations in an industry affect native wages and concluded that there is no significant wage effect for native white collar workers and positive effects on experienced native blue collar workers. There has been no effect of increased immigration on the unemployment rate in Germany and a larger inflow of foreigners lowers the employment rate for natives (Pischke & Velling, 1997) and overall wage effects of immigrants on different native skill groups are small (Bauer, 1998). In Austria, natives seem to be able to exploit the presence of foreigners in a two-tier wage system, employing more foreigners at a lower wage, which increases the firm's profit and the natives can benefit through bargaining (Winter-Ebmer & Zweimüller, 1996, 1999). There is no effect of the immigrant share on the unemployment risk, however, the effects of immigrant density on the unemployment probability are quantitatively large (Winter-Ebmer and Zweimüller, 1999). In the Italian case, non-regular foreign workers do not seem to have displaced native workers in any significant way (Venturini, 1999). In case of Israel, Friedberg (2001) found that the effect of immigration on wage growth of natives is significantly positive thus indicating complementarity between immigrants and native workers, whereas Cohen & Hsieh (2001) conclude that the Russian immigration has a large short-run effect on wages of all natives without exerting a downward pressure on the skill-premia of native Israelis, despite the high educational levels of the immigrants. In Netherlands, UK and Norway, there has been relatively small effects on wages with no dominant robust pattern of complementarity or substitutability between immigrants and natives of different skill levels (Hartog & Zorlu, 2002).

Dustmann, Fabbri & Preston (2005) show no significant adverse effects of immigration on native outcomes in UK economy, but effects are different for different educational groups. In another study, Dustmann, Frattini & Preston (2007) demonstrate that there is substantial downgrading of recent immigrants in the UK labour market. Immigration has raised modest return to education for natives and impacts the wages of immigrants in UK (Manacorda, Manning & Wadsworth, 2006). Blanchflower, Saleheen & Shadforth (2007) analyses the impact of immigration from Eastern Europe to the UK and found that the immigrant inflows has acted to reduce inflationary pressures by lowering the wage bargaining power of native workers.

Carrasco, Jimeno & Ortega (2007) show no significant negative effect of immigration on employment rates and wages of native workers in Spain. The arrival of immigrants had reduced native in-migration and increased native out-migration in the US (Filer, 1992; Frey, 1995), whereas Hatton & Tani (2003) find a correlation between immigrant inflow and native outflows

in the Southern UK regions. However, Wright, Ellis & Reibel (1997) found no evidence for a native response to the presence of immigrants in a local labour market. The increase in the immigrant population in a skill group seems to lead to slight increases of the native-born population (Card & DiNardo, 2000). Borjas (2006a) reveals that the immigrant flows is associated with lower wages, lower in-migration rates and higher outmigration rates and a decline in the native workforce.

There are larger adverse immigration effects when the labour market flexibility is low, and restrictive institutions fail to protect natives from job losses due to immigration, and may even make immigration-related job losses worse (Angrist & Kugler, 2003). Hercowitz & Yashiv (2002) look at Israel's mass immigration experience. In early stages of immigration, immigrants tend to participate more in the goods market relative to the labour market, thereby increasing the relative prices of domestic goods and labour demand and native employment and subsequently when the immigrants' relative participation in the goods market declines, the direct substitution effect of immigrants for natives dominates the labour demand effect (Angrist & Kugler, 2003). Within occupation-based segments, immigrants and natives are close substitutes in the short run until the labour market adjusts to the changes in labour supply (Cohen-Goldner & Paserman, 2004) and impact of immigration on wages is quantitatively small (Longhi, Nijkamp & Poot, 2004), whereas immigrants primarily displaced marginal or low-income self-employed natives (Fairlie & Meyer, 2003).

The overall macroeconomic impact of immigration is quite limited. Three engines of economic growth are affected by migration (Drinkwater, *et al.*, 2002), which includes capital accumulation (Reichlin & Rustichini, 1998), human capital accumulation (Haque & Kim, 1995) and innovation and technology (Lundborg & Segerstrom, 2000; Bretschger, 2001). Poot, Nana & Philpott (1988) found that a net inflow of 15,000 people increases GDP per capita by 0.2% per annum and GDP per worker by 0.15% per annum in New Zealand. Similarly, the economic gains of immigration accruing to natives found to be relatively small (0.1% of GDP) in the U.S. (Borjas, 1995) and a 1%age point higher net migration rate is associated with a 0.1% higher economic growth rate (Barro & Sala-i-Martin, 1992). A 10% increase in the share of low-skilled immigrants in the US labour force reduces the prices of immigrant-intensive services (housekeeping and gardening) by 1.3% and non-traded goods by 0.2% (Cortes, 2006).

There has been positive effect of immigration on housing rental prices in the US (Saiz, 2003) and the native workers seem to avoid and migrate out of areas with high levels of immigration (Filer, 1992). A 1% immigrant

inflow is associated with an increase in housing rents by 1% (Saiz, 2006). Ottaviano & Peri (2006a) also find a strong positive association between immigration and house prices of native individuals across the U.S. The discounted net government gain from immigration varies substantially across age and skill levels of new immigrants to the US (Storesletten, 2000). There have been very small fiscal effects of immigration relative to the size of the overall fiscal imbalance in the U.S. (Auerbach & Oreopoulos, 1999). Therefore, immigration should be viewed as neither a source nor a solution to the existing imbalance in the U.S. (Lee & Miller, 2000). There has been a positive net fiscal contribution of immigrants in Spanish economy (Collado, Ormaetxe & Valera, 2004). The first generation successful immigrants in the UK are the biggest contributors by paying more taxes and national insurance contributions and receiving less publicly provided services and benefits (Gott & Johnston (2002).

The immigration increases the supply of labour, employment, production and thus GDP of the receiving economies (Ortega & Peri, 2009). An increase in South-North migration would produce substantial income gains in the long-run, which could exceed gains from comprehensive trade liberalization (World Bank, 2006; Anderson & Winters, 2008, van der Mensbrugghe & Roland-Holst, 2009). The highly skilled immigrants boost productivity through innovation and specialization (Chellaraj *et al.*, 2008), however, imposes significant financial and other costs to meet regulatory requirements and procedures in the destination country (Mattoo & Mishra, 2009). The less-educated immigrants also increases labour productivity by specializing in more productive complementary tasks performed by the uneducated local labour force (Peri & Spaber 2009). The immigrants also perform jobs that natives no longer do such as care for the elderly (UNDP, 2009) besides low-cost childcare to enable young native women to go back to work (Kremer & Watt 2006). At the same time, immigration is feared to lead to loss of jobs, heavy burden on public services, social tension and increased criminality (UNDP, 2009). In times of economic slowdown, immigrants can be blamed for rising unemployment (Papademetriou *et al.*, 2009) and a downward pressure on salaries, however, the aggregate effect of immigration on wages has been very small (Longhi *et al.*, 2005) and reducing immigration flows will not necessarily result in higher wages for native workers (van der Mansbrugghe & Roland-Holst, 2009). The comprehensive immigration reform may increase fiscal contribution to cover spending on social security, healthcare and other benefits for the immigrants (CBO, 2006). In the UK, the first-generation migrants were found to make a net fiscal contribution (Gott & Johnston, 2002). However, the net fiscal impacts of immigration are not likely to be large (UNDP, 2009). If

labour markets do not adjust, then population aging may generate unemployment, potentially for both older and younger people (Fertig & Schmidt, 2005; Klevmanken, 1992; Korenman & Neumark, 2002; Schmidt, 1996; Shimer, 2001; Welsh, 1979; Wright, 1991; Zimmerman, 1991).

IV. CONCLUSION AND POLICY SUGGESTIONS

The population aging poses new challenges. The behavioural adjustments and technological and institutional innovations offset negative outcomes of population aging. The negative consequences of population aging can be addressed through combination of following policy options including increased labour supply from women, immigrants, and older people; investment in education and training at all ages; increased rates of savings and faster growth of tax contributions to finance government transfers to older people. In this context, many EU countries have opted to increase the retirement age and enacted partial privatizations of their pension systems. Both public and private sectors have adopted strategies to encourage savings. Keeping in view the current and future cohorts of the elderly, there is needed to apply country-specific correct mix of policy interventions. The robust policy and institutional reforms should be implemented for the smoother transition of aging population and transforming challenges of an aging population into opportunities for demographic change.

Migration should be part of the development cooperation strategies in the North (Clemens, 2010). Improving data collection can facilitate better policies to enhance migration for development (World Bank, 2010). There is need to leverage remittance flows for development by making them cheaper, safer and more productive for both the sending and the receiving countries (Ratha, 2007). The educational policies in South will need to be revised to invest in skills that are needed within the country as well as in the global labour markets (Clemens, 2009). There is need to facilitate migration through safe and legal channels through better monitoring of recruitment processes and bilateral coordination (UNDP, 2009). The human rights of migrants are needed to be protected against abuses and to fulfill the rights necessary to enjoy a life of dignity and security (GMG, 2010). Immigration and border control policies need to recognize economic aspects of migration (Ratha, 2009).

There has been a large and persistent immigrant flow to the developed world in recent past. Both high and low-skilled immigrants tend to complement the native workforce. The high-skilled workers benefit the economy most, thereby alleviating labour shortages in science, health and technology occupations and boosts innovation and research and

development (R&D) along with a positive fiscal impact by paying more taxes than using public services. Besides, immigration of highly skilled may slow outsourcing or off-shoring of production and also attract foreign and domestic investment for accelerating economic growth. There is need to harness the development potential of migration and remittances through (a) increasing awareness of decision-makers and improving data on remittances and migration, (b) facilitating labour mobility and recruitment across borders along with safe and affordable remittances mechanisms and (c) making robust regulation benefiting both sending and receiving countries. Besides above, the following policy options would boost the economic gains from immigration: (i) increase the number of temporary and permanent resident visas to highly skilled and low-skilled workers with priority to STEM workers, (ii) simplify and streamline the rules for temporary worker visas to encourage employers to use these programmes; (iii) create a legalization plan for current unauthorized immigrants, but also minimize future illegal inflows.

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