Chapter 11

Trade, Employment and Inclusive Growth in Asia

Douglas H. Brooks and Eugenia C. Go

Asian Development Bank

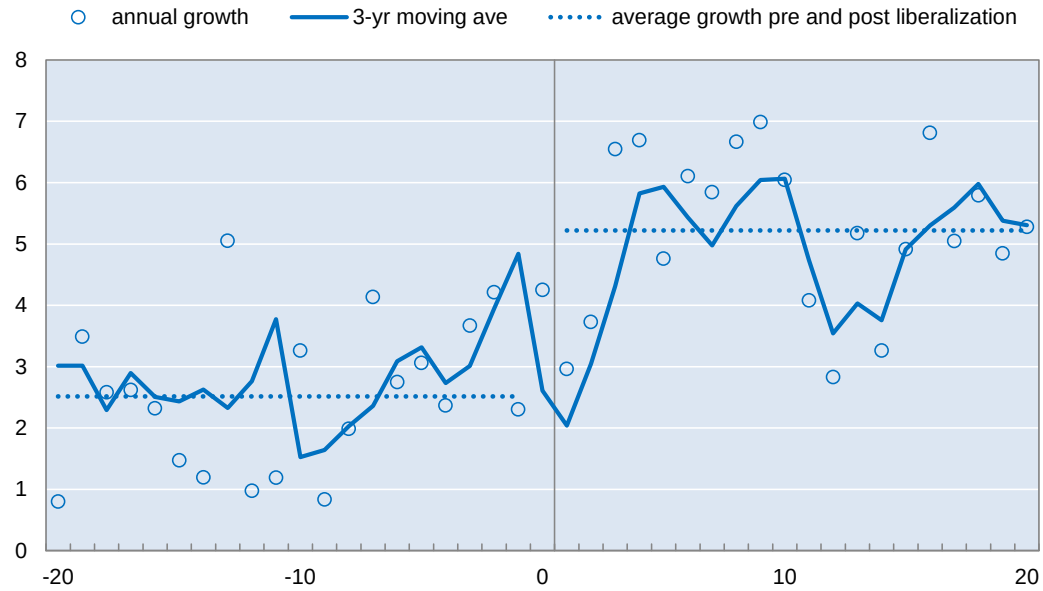
This chapter reviews the relationship between trade and employment in the context of Asia's experience and expected developments in the labour market in the region. Asian economies have undergone massive structural transformation together with trade policy reforms, making possible the rise of "factory Asia". While trade has been beneficial for the region's growth and employment conditions, the latter gains have only been empirically observed for the formal sector. The relationship between trade and Asia's large informal sector remains poorly understood. This poses considerable challenges in designing appropriate safety nets for trade related adjustment measures. In the long run, the continued expansion of tradable tasks and goods as determined by technological developments, human capital investments, and the changing demography of the region will shape the comparative advantage of Asia.

11.1. Introduction[1]

In Asia, and particularly in East Asia, trade has played a prominent role in the region's phenomenal economic growth and development in recent decades. Official unemployment rates remained generally low despite the wrenching structural transformations associated with the rapid growth, in part because of the flexibility and rapid technological change spawned by trade liberalisation and expansion. As the region now adjusts to slower growth in major export markets and maturing domestic economies with rising inequality in many cases, linkages between trade and inclusive growth are increasingly attracting attention.

Wacziarg and Welch (2008) suggest that over the 1950-98 period, countries that liberalised their trade regimes experienced average annual growth rates that were about 1.5 percentage points higher than before liberalisation, in part resulting from physical capital accumulation. A similar analysis for 113 economies over 1950-2009 finds a 2.1% growth rate improvement following trade liberalisation, while for developing Asia (Figure 11.1) a 2.7 percentage point improvement in average growth is found, indicating that openness appears much more highly correlated with growth in Asia than the world average. The growth difference pre and post liberalisation is even more remarkable in light of the fact that Wacziarg and Welch (2008) classified India and the People's Republic of China (PRC) – the fastest growing countries in the region - as closed, which we have followed for comparison purposes.

Figure 11.1. Openness and growth in Asia



Notes: The data refer to 21 Asian economies: Armenia; Azerbaijan; Bangladesh; PRC; Georgia; Hong Kong, China; India; Indonesia; Japan; Korea; Malaysia; Nepal; Papua New Guinea; Philippines; Singapore; Sri Lanka; Taipei, China; Tajikistan; Thailand; Turkmenistan; and Uzbekistan. Please note that the economy known as "Chinese Taipei" according to OECD standard usage, is referred to here and throughout this chapter as "Taipei, China", according to ADB usage.

Source: Authors' calculation based on the methodology of Wacziarg and Welch (2008) and data from Penn World Tables 7.0.

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The trade and *growth* nexus is reasonably well-established, but the relationship between trade and *employment* is more complex. The short-run dynamics centre on such matters as job creation versus destruction and the wage effects, but long run data show weak effects on aggregate employment, and mixed results on sectoral wage and employment effects. Recent decades witnessed evolving employment patterns not just due to the global crisis, but also tremendous shifts in patterns of employment in the Asia-Pacific region, as PRC integrated with the global economy and production networks evolved. Exports of manufactured goods have continued to grow, even as structural transformation has raised services' share in regional economies. Wages have risen and enhanced trade has not resulted in deterioration of labour conditions in Asia. The increased trade has thus been correlated with employment growth, better conditions and higher wages. There has been increased demand for skilled labour, and gains for countries from regional integration.

11.2. Trade and employment in Asia

For a region that has successfully relied on trade for much of its dynamic growth in recent decades, the link between trade and employment generation is something that warrants close scrutiny for its impact on the inclusiveness of growth. This has become more urgent in light of the changing trade patterns that are occurring and are expected to occur in the context of global rebalancing. Such changes will inevitably have impacts on economic structure, employment and labour market institutions of developing Asian economies, and to inequalities within and between these economies.

It is difficult in analysis to disentangle the effects on inclusive growth of trade (and FDI) from other factors such as skill-biased technological changes, institutional and regulatory reforms, changes in employment patterns and in family formation and household structures, and changes in tax and benefit systems. There is little evidence of a direct effect of globalisation on wage inequality, yet technological change has boosted wages at the higher end of the scale. Regulatory reforms aimed at promoting growth and productivity have had a positive impact on employment, but at the same time can be associated with increased wage inequality. A rise in the supply of skilled workers is a major factor in reducing wage differentials and promoting employment. In view of the sizeable adjustment costs for trade-displaced workers, governments need to implement labour market policies that promote job creation, upgrade skills, and steer workers toward more productive jobs.

Employment and unemployment

In a model of trade in intermediate inputs and equilibrium unemployment due to imperfect matching between workers' qualifications and jobs, Jansen and Turini (2004) find that steady-state unemployment is lowered after trade integration. The increased demand allows firms to resist larger shocks, leading to a lower rate of job destruction in the resulting steady state. This consequently induces an indirect positive effect on job creation.

Exploring results for a set of 25 liberalisation episodes, Wacziarg and Wallack (2004) find liberalisation has weakly negative effects on the extent of intersectoral labour shifts at the economy-wide, 1-digit industrial level. On the other hand, the extent of post-reform labour shifts appears to be only weakly related to the degree of labour market flexibility. Broad-based reforms that include domestic deregulation and privatisation can therefore have greater effects on intersectoral labour movements than trade reform in isolation. Closer inspection reveals that comparative advantage applies more in terms of *intrasectoral* firm heterogeneity and less in terms of *intersectoral* differences when discussing the effects of trade liberalisation. This suggests that in a region of rapid structural change such as Asia with most employment informal

in nature, support for labour mobility both into formal sectors and positions, and into newly emerging sectors, depends on constant policy vigilance.

Gilbert (2011) found that growth of trade in Asia has been dominated by improvements in export performance in PRC, India, Korea, Thailand and Viet Nam, resulting from productivity growth in established market segments. On the other hand, increasing economic integration in the region appears to be a factor both in improving export performance for some economies (such as India, Korea and Viet Nam) and in insulating the region from economic shocks. In this context he predicts a gradual shrinking of the unskilled/skilled wage gap, driven largely by more rapid growth of skilled than unskilled labour. In his analysis, most skilled labour will likely be absorbed into services and manufacturing, with the strongest manufacturing growth in the transportation equipment and auto sectors. He also finds that Pakistan and (to a lesser extent) Bangladesh become, unlike other developing Asian economies, less engaged in international trade over time, resulting in part from lower rates of human capital accumulation. Thus, an international crowding out effect may occur.

The global financial crisis beginning in late 2008 resulted in a rise in unemployment in many countries. Official unemployment rates have been rising across developing Asia, and official employment statistics often mask rising underemployment. In addition, given Asia's reliance on exports, the slow recovery in G-3 economies and continued risk of spillovers from difficulties in the eurozone still pose a threat to employment recovery in Asia. This is particularly the case for manufacturing employment, since exports of manufactured goods constitute a large share of total exports from Asia – and above 70% for Korea, Malaysia, Philippines and Singapore.

While the direct unemployment effects in Asia of the 2008 global financial crisis were quite mild when compared to the 1997 Asian financial crisis, the newer composition of exports was an important determinant of the employment effect. For example, Vere (2011) found that although the labour force in Hong Kong, China grew by 9.0% between 2000 and 2009, employment in the import and export sector increased only 5.5% – a slower rate than the overall growth of Hong Kong's labour force.[2] By contrast, employment increased substantially in Hong Kong's finance, insurance, real estate and business services sector. Though the finance sector and the import and export sector have both been important sources of economic growth for Hong Kong, the finance sector (which does not appear in import/export statistics) has been much more important in terms of creating jobs and employment. Nevertheless, the import and export sector is still important in absolute terms. The import and export sector, combined with wholesale and retail trade and the restaurant and hotel sector, employs one-third of Hong Kong's labour force.

At the same time, the effects of trade liberalisation on employment in Asia have frequently been context-specific. Using input-output tables over 1990-2005, Aswicahyono, Brooks and Manning (2011) find that because of slower growth in manufacturing exports and the shift away from light industry in Indonesia, in 2005 fewer jobs were created through exports in manufacturing industries than before the 1997-98 Asian financial crisis. The current protracted global slowdown is potentially costly in such situations due to the elastic supply of unskilled labour. However, there has been an increase in jobs in the services sector, partly because of indirect service connections with the main export industries. This could be enhanced through greater domestic and international competition in services, but the main constraints to job creation through exports appear on the production supply side, especially those related to poor infrastructure, an uncertain investment climate, and tight labour regulations.

2. Part of the observed effect may be due to difficulties in measuring service exports and associated employment.

In Japan, Kiyota (2011) found that demand for worker-hours from exports increased but is not large enough to offset the decreases in demand for worker hours from slower domestic final demand. The demand for employment from exports has increased since 1985 in both manufacturing and non-manufacturing. This implies that manufacturing exports affected non-manufacturing employment indirectly through inter-industry linkages.

Using state and industry-level data on unemployment rates and trade protection from India, Hasan *et al.* (2012) find that unemployment declines with trade liberalisation, at least in certain contexts. In particular, urban unemployment declines with trade liberalisation in states with more flexible labour markets and larger employment shares in net exporting industries. They also find that although workers in industries experiencing greater reductions in trade protection were less likely to become unemployed, especially in states with flexible labour regulations and net export industries, the full benefits of trade reforms cannot be reaped in the Indian context without further domestic labour market reforms.

Examining the Indonesian agricultural sector through a computable general equilibrium (CGE) model, Vanzetti and Oktaviani (2011) suggest that the employment effects of trade shocks are quite small, partly because the highly protected (rice and) sugar sector has so far been exempt from tariff reductions. On the other hand, Ernst and Peters (2011) using a dynamic social accounting matrix find that the impacts of the ASEAN–China FTA on employment is relatively small and slightly negative. They suggest that supportive industrial policies (e.g. FDI policies, innovation, R&D) and related labour market policies (e.g. skills development) could be put in place in a targeted way to counter adjustment costs.

In Bangladesh, a CGE analysis by Raihan (2011) finds that bilateral and regional FTAs would be beneficial in terms of impact on employment (with sectoral implications).

Wages and returns to labour

The experience of East Asia in the 1960s and 1970s supports the theory that greater openness to trade tends to narrow the wage gap between skilled and unskilled workers in developing countries. Later, the entry of China and other large low-income Asian countries into world markets for labour-intensive manufactures and, perhaps, the advent of new technology biased against unskilled workers, changed the environment for the trade-employment nexus when Latin America tried to replicate East Asia's experience (Wood, 1997).

As global production networks have expanded, trade in intermediate inputs is a potentially important explanation for the increase in the wage gap between skilled and unskilled workers. It has much the same impact on labour demand as does skill-biased technical change – both will shift demand away from low-skilled activities, while raising relative demand and wages of the higher skilled. Similarly, foreign outsourcing is associated with increases in the share of wages paid to skilled workers in Japan and Hong Kong, China (Feenstra and Hanson, 2004).

In Indonesia, Vanzetti and Oktaviani (2011) find that employment tends to rise with output in the primary agricultural sector, but real wages for skilled and unskilled workers can still move in different directions depending on the rate of inflation. Fortunately, necessary adjustments in a growing economy like Indonesia are much easier to accommodate than in a stagnant or shrinking one.

Amoranto, Brooks and Chun (2011) study the impact on employment and wages of liberalisation in service subsectors (banking, distribution and telecommunications) in the Philippines from 1991 to 2004. They find liberalisation may have harmed more vulnerable populations that are less educated, and created greater opportunities for employment in good jobs for higher-skilled males (particularly relative to females). This suggests a need for policies

to support education as the Philippine economy shifts from primary and secondary sector production, to services, which typically requires a higher skilled and more educated labour force. Greater disaggregation of the data by gender, education, occupation, and employment status in their study highlights the complexity of designing effective programs to redress distributional imbalances that accompany liberalisation and structural transformation.

In some countries, there is concern that heavy dependence on foreign workers could suppress domestic real wages with adverse implications for economic restructuring and productivity growth, and for improvement of economic well-being for domestic workers. Looking at Malaysia (the biggest net importer of labour in Asia as a per cent of labour force), Athukorala and Devadason (2011) find a statistically significant negative impact of foreign worker presence on real wages, but the impact is small. Their results suggest that variables relating to the structure and performance of domestic manufacturing are far more important than foreign worker dependence in explaining real wage behaviour.

Conversely, changes in wage rates can influence competitiveness. Using selected Asian countries (98 industries in nine Asian countries) in the decade following the 1997 Asian crisis, Jinjarak and Naknoi (2011) illustrate that the degree of competitiveness is determined by foreign-domestic wage inflation differentials, changes in the relative cost of capital, the growth rate of TFP and foreign-domestic inflation differentials in the import sector. But rising wage inflation may not result in a loss of competitiveness if it occurs in the sectors of which labour intensity is low and consumption expenditure share is small.

Working conditions

The globalisation of recent decades, including outsourcing, has generally led to improved labour conditions. The effect of trade on labour conditions has been mainly indirect, through its impact on GDP (Flanagan and Khor, 2011). Asia generally scores lower on most measures of working conditions and labour rights than other regions, but some differences with the rest of the world have been narrowing. This evidence seems consistent with the "knowledge capital hypothesis" that foreign firms bring firm-specific technical and managerial advantages that produce the higher productivity which supports higher wages and improved nonmonetary employment conditions. This was particularly well-documented in the case of foreign investors in Asia's manufacturing activities related to vertical production chains, which are geared towards exports and tend to pay higher wages and provide better working conditions.

Employing a measure for violations of free association and collective bargaining (FACB) rights constructed by Kucera (2002), Neumayer and Soysa (2006) found that countries that are more open to trade have fewer core labour rights violations than relatively closed ones. They argue that of particular note, while globalisation may not be beneficial for outcome-related labour standards, it is likely to promote the process-related standard of a right to FACB. Another study however documents that union strength as measured by union density and union influence in several Asian economies has been in decline since the late 1980s (Kuruvilla *et al.*, 2002), making it difficult for them to effectively exert influence. Jansen and Lee (2007) explain that the general decline in the bargaining power of labour is due to globalisation, which effectively brought competition to domestic labour indirectly through imports, and directly through improvements in ICT which increased the scope of trade in tasks. Nonetheless, the waning influence of unions generally has not been reflected in poorer working conditions.

Robertson *et al.* (2011) describe an ILO monitoring and training program of Cambodian apparel factory compliance with international core labour standards and Cambodian labour law. They show that institutions regulating working conditions can have a positive impact on economic efficiency. The Better Factories Cambodia (BFC) program achieved a record of

compliance above that attained by reputation-sensitive buyers in global supply chains, and achieved improved compliance among factories lacking a reputation-sensitive buyer by threatening public disclosure of noncompliance. The program also helped factories identify labour management practices that were more efficient than standard practices in the Cambodian apparel industry, with lasting effects.

In China, it is commonly argued that the massive structural transformation put into motion by the gradual liberalisation in 1979 and the greater integration into world markets has finally reached the Lewis turning point and is popularly termed as 'the end of cheap China.' The shortage of labour has in turn led to steep wage increases and improved working conditions, with strong implications for the country's export structure. Nonetheless, Du and Cai (2011) found that huge disparities in working conditions remain between migrant and urban workers. In particular, the close link between the domestic labour market and external demand brings added uncertainty for workers, especially the migrants (Du and Cai, 2011). This has been observed even though direct employment effects in trade related sectors may look small in the context of the large Chinese labor market. Although workers benefit from growing wages, enterprises in labour intensive sectors may be more vulnerable when facing outside shocks since their profit margins are largely determined by labour costs. Bankruptcy would see migrant workers suffer from unemployment without reliable access to social safety nets. On the other hand, increasing labour costs combined with liberal reforms in other factor markets, can push the economy to shift toward higher value-added industries, if accompanied by more investment in human capital.

Most of the findings relating trade and working conditions pertain to the formal sector. This issue is of particular relevance for developing Asia where the informal sector was measured at 67% of employment as of 2008 (ADB, 2011c).[3] The informal sector produces goods and services which are often linked to those in the formal traded sector, either as inputs, or finished or intermediate goods which compete with those produced in the formal sector, or purely nontraded consumption goods. Unfortunately, the factors driving the heterogeneity of results remain poorly identified, much less, understood. Nonetheless, a survey by Munro (2011) finds that increased openness can expand informality in the short term, although country specific characteristics appear to be the primary determinant of whether this actually occurs.

A study on India by Marjit and Maiti (2005) on the other hand documents how trade improves the welfare of those working in the informal sector. The nature of the formal/informal production structure in West Bengal underwent transformation following increased exposure to international trade primarily through expanded export markets. There is a clear trend showing the breakdown of independent entrepreneurship of marginal producers who are becoming tied suppliers to bigger, formal enterprises. As export markets expand, the division of labor alters, with informal rural industries exhibiting increasing dynamics of tying, technology adoption and growth.

11.3. Changing landscape of labour markets in Asia

Demand and supply for final goods and services change constantly during the ordinary course of business and these variations feed into the labour market. Consistent with Heckscher-Ohlin and Stolper-Samuelson predictions, the labour intensive sectors of developing Asia benefited from opening up to trade, with consequent improvements in employment as well as labour conditions (ADB, 2011a; Flanagan and Khor, 2011).

3. The figure represents only a minimal decline from the 1990 estimated level of 68.9%.

More enduring shifts in the demand for labour have however been unfolding, and are expected to persist as technological developments continue to bring communication and coordination costs down, making global production fragmentation more economical over a wider range of products, tasks and regions.

Part of the changing context is the proliferation of bilateral and regional trade arrangements (RTAs), which can transform economies. Such integration efforts can facilitate trade or increase the complexity faced by exporters and can lead to trade expansion or trade diversion. Moreover, they can influence comparative advantage with consequences for economic specialisation and the international division of labour.

Not all RTAs are alike and the quality of an agreement matters. In some arrangements implementation and enforcement is difficult, which reduces the attractiveness of the enlarged market. RTAs can also be characterised by the issues that they cover (particularly whether investment is included), their rules of origin, etc. They also may differ by the rationale for the RTA. More often than not, they are negotiated in response to other countries' RTAs, to keep exporters from being disadvantaged in external markets. Labour standards in RTAs were a sensitive issue when they were first raised, but have now become more accepted and even encouraged, as witnessed by growing interest in Trans-Pacific Partnership (TPP) agreements. Policymakers may also find that having labour and environmental standards in a trade agreement makes it easier to get necessary support from constituents and political allies.

Unlike other regions, the political push in Asian RTAs has been to support the economic integration process spurred by international production networks. Problems associated with the current approach, including exceedingly complicated rules of origin requirements, suggest a strong incentive to expand and consolidate. In November 2010 the APEC Summit approved paths to creation of an eventual "Free-trade Area of the Asia-Pacific" (FTAAP) in 2020. According to Petri, Plummer and Zhai (2011), the FTAAP would yield significant gains, with trade creation outweighing trade diversion in all scenarios examined. Their forecast shows that excluded countries can still benefit via growth and welfare spillovers. The welfare gains per job transferred in these scenarios are very high, suggesting the agreements present potential "win-win" scenarios, provided that appropriate compensation policies are in place. This reinforces the perception that trade liberalisation can generate large gains but effective complementary strategies need to be developed to facilitate structural change and protect the most vulnerable.

Besides RTAs, geography and developments in ICT also made the East Asian economies the quintessential success story of the production fragmentation which started on a region-wide basis in the mid 1980s. Countries in the region moved away from their import substitution strategies, and embarked on unilateral liberalisation in competition for foreign investments and the jobs that come with these (Baldwin, 2006). Practically, the whole of East Asia is involved in worldwide vertical production chains and has given rise to the commonly used term 'factory Asia'.[4] According to Athukorala (2011), exports and imports of parts and components comprised 17.3% and 29% of manufactured exports and imports respectively in developing Asia in 1992-1993. This expanded to 34% and 44.2% respectively in a span of just 15 years.[5]

4. See Ferrarini (2011) for an analysis of the density of vertical trade networks in East Asia for electronics and automotives parts and components trade.

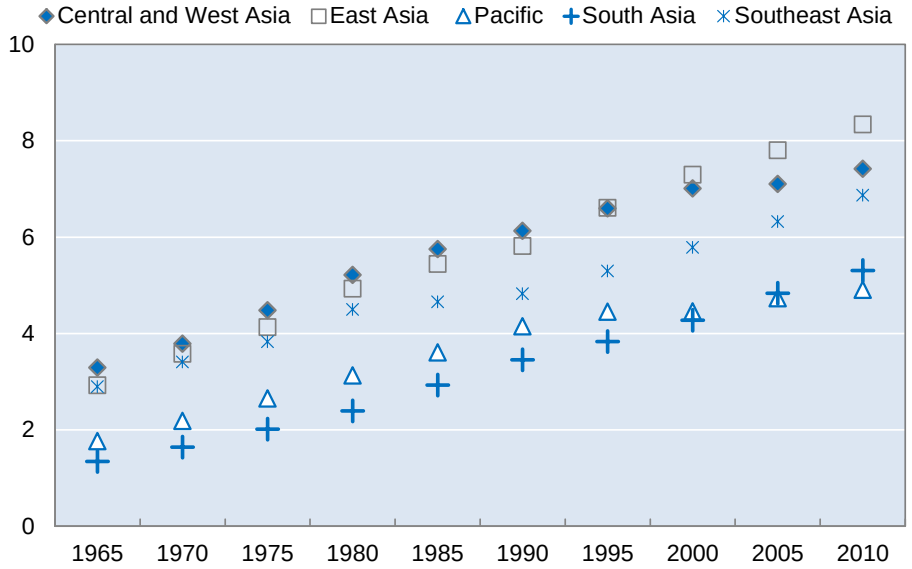
5. Developing Asia in this context comprises PRC; Hong Kong, China; Taipei, China; Korea; ASEAN6 and India.

More recently, production fragmentation has expanded beyond goods to encompass provision of services, termed as business process offshoring (BPO). Asian countries have been particularly adept at reaping benefits of this development, collectively accounting for over 90% of the world market in IT-BPO, particularly PRC (25.9%), India (44.8%), and the Philippines (21.7%) (BSP, 2011).[6]

Production fragmentation in both goods and services is expected to continue and even expand to encompass more activities as technology continually develops. From the point of view of firms, lower trade and coordination costs effectively enlarge the pool of labour that can feasibly be engaged. This in turn means domestic labour resources increasingly come into direct competition with labour from other parts of the world. Autor *et al.* (2003) distinguished among five categories of jobs: requiring expert thinking; requiring complex communication; non-routine manual labour; routine cognitive processes; and routine manual labour. Of these, the last two categories are the most likely to be outsourced. Thus far, developing Asia has been perceived as a winner of these developments as attested to by factory Asia and the dominance of Asian countries in capturing BPO investments.

These demand side developments in the labour market were accompanied by changes in the labour supply conditions of the region. Labour supply in Asia-Pacific has grown from about a billion in 1980 to about 1.8 billion in 2011. The quality of the labour force has likewise been continually improving as can be appreciated from Figure 11.2. The average years of schooling of the population aged 15 and above increased substantially in all sub regions of Asia and the Pacific since 1965. A successful structural transformation has simultaneously taken place as massive shares of the working population were transferred from the generally low productivity agricultural sector to higher productivity manufacturing and service sectors as shown in Figure 11.3.

Figure 11.2. Average years of schooling in Asia and the Pacific, 1965-2010

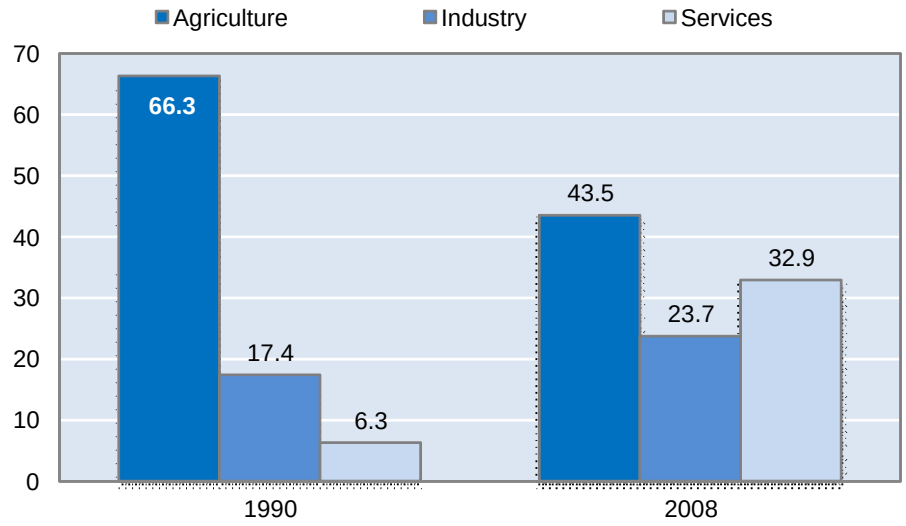


Note: Averages were weighted using size of labour force.
Source: Authors' calculations based on Barro and Lee (2010), World Development Indicators and Directorate General of Budget, Accounting and Statistics for population aged 15 and over.

6. BSP uses the term business process "outsourcing" to refer to trade in tasks. We follow the advice of Grossman and Rossi-Hansberg (2006) that since the focus is on international trade in tasks, the proper terms is "offshoring".

Labour supply conditions in the region are however undergoing enduring shifts as Asia continues its demographic transition. In some economies such as PRC; Hong Kong, China; Korea; Malaysia; Singapore; Sri Lanka; Taipei, China and Thailand, the period of reaping demographic dividends is gradually coming to an end, and is shifting into one where the dividend might soon become a tax as populations age and dependency ratios rise (ADB, 2011a; World Population Prospects, 2010; DG-BAS, 2011). On the other hand, younger countries such as Cambodia, India, Pakistan and the Philippines (ADB, 2011a) are likely to retain their comparative advantage in labour intensive products and services.

Figure 11.3. Employment shares of agriculture, industry and services in Asia and the Pacific, 1990 and 2008



Source: ADB Key Indicators (2011).

It used to be simpler to predict what all these developments would mean for labour markets in Asia and the Pacific. The traditional Ricardian models make broad, widely accepted predictions about factor returns when North-South trade is involved. These predictions largely remain valid for the meantime as most trade in final goods and services occurs between north and south. Even so, the model could not account for increasing inequalities between skilled and unskilled workers brought about by skill-biased technical change that occurs in developed and developing countries alike. Moreover, South-South trade has been rising steadily, independent of the parts and components trade (Athukorala, 2011), and is expected to intensify as a result of the global rebalancing process. Other developing countries in the region often express fear of competition from other developing countries such as PRC and India that have seemingly limitless armies of workers willing to provide cheap labour. As wages in the PRC rise rapidly, manufacturing firms requiring less sophisticated logistic arrangements are also moving low skill production processes into other lower wage economies such as Viet Nam and Cambodia. Finally, while trade models such as Krugman's new trade theory and Melitz's heterogeneous firms model are better at predicting trade patterns between relatively similar countries, they do not concentrate on factor rewards useful for welfare distribution predictions (WTO, 2008).

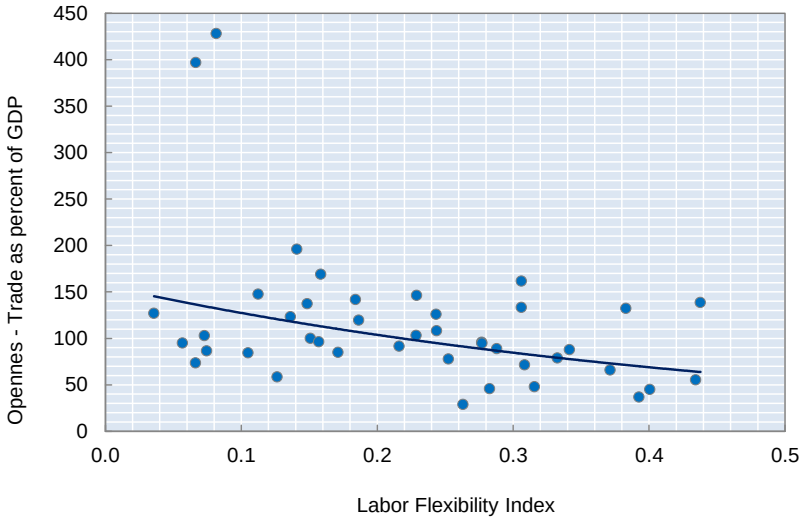
Nonetheless, some broad implications can be drawn. First, the aging countries in the region would probably gradually shift production to products and services that require relatively lower labour intensities than are produced now. This means that the workforce must be sufficiently skilled to work with greater or more sophisticated capital equipment. Second, younger countries can anticipate that their comparative advantage will continue to lie in the production of labour

intensive goods and tasks over the short term although skills for this production will become increasingly important. Moreover, important considerations to these general propositions are: (i) the demographic shift in Asia and the Pacific is occurring amidst a more drastic aging process in developed countries, and increasing labour force in Africa although the region will account for over half of world population well into the first half of the 21st century; and (ii) technological developments will further expand the extensive margin of tasks and goods that are currently traded.

11.4. Labour markets institutions

The effects of trade reforms on the labour markets in Asia and the Pacific vary across institutions and the underlying demand and supply conditions. Labour market institutions are shaped by efficiency needs, political motivations, and the legal tradition in a country (Botero *et al.*, 2004). The inability of cross country studies to come up with robust conclusions on the effects of trade on employment has often been attributed to the dissimilarities of labour market institutions in countries. This is because institutions affect labour costs, investment decisions of firms and labour in terms of both physical and human capital, and the speed of adjustment. For example, Chang *et al.* (2008) found that characteristics of labour market institutions are key determinants of whether a country is able to reap growth benefits from trade reforms. In general, liberal labour markets tend to go with more open economies. Figure 11.4 shows a positive correlation for Asia and the Pacific between the openness of countries and flexibility of their labour markets. Nonetheless, labour institutions in the region vary. While Figure 11.5 indicates that labour institutions in Asia and the Pacific are on average more flexible compared to other regions, Table 11.1, which summarises the labour flexibility into a single index for selected countries in Asia and the Pacific reveals the diversity within the region.[7] The labour market environments in small island Pacific countries and highly trade oriented economies such as Singapore and Hong Kong, China are the most flexible while there are others that nominally are among the most rigid in the world such as Indonesia and Tajikistan.

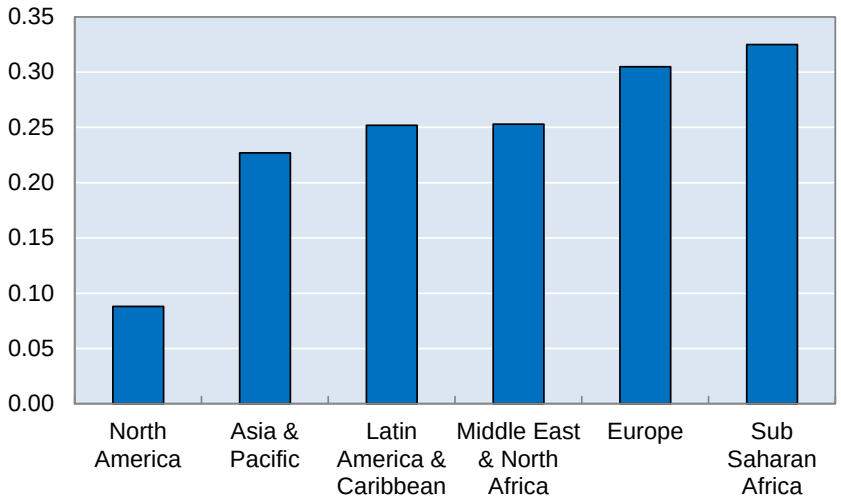
Figure 11.4. Labour flexibility and openness in Asia and the Pacific



Note: Openness is measured as the average share of trade to GDP for 2005 to 2009.
Source: Authors' calculations based on the Penn World Tables 7.0, and *Doing Business 2012*, World Bank.

7. Please refer to the Labor Annex of the World Bank *Doing Business 2012* Report for the different aspects by which labour market flexibility were measured.

Figure 11.5. Labour flexibility index



Notes:
(1) An attempt to include freedom of association and collective bargaining indicators based on the ratification of ILO Conventions 87 and 98 resulted in the same patterns.
(2) The five broad categories received equal weights.
(3) The index takes a value of 0 to 1, with lower values denoting more flexible labour markets.
(4) Regional averages are un-weighted.

Source: Authors' calculations based on the Labor Annex of the *Doing Business 2012*, World Bank.

Table 11.1. Labour flexibility index in Asia and Pacific

Economy	Labour Flexibility Index	Global rank	Economy	Labour Flexibility Index	Global rank
Marshall Islands	0.04	1	Kiribati	0.23	66
Micronesia, Fed. Sts.	0.06	2	Kyrgyz Republic	0.24	74
Tonga	0.07	5	Vanuatu	0.24	75
Hong Kong, China	0.07	6	Afghanistan	0.25	77
Brunei Darussalam	0.07	7	Japan	0.26	86
Georgia	0.07	8	Timor-Leste	0.28	96
Singapore	0.08	9	Azerbaijan	0.28	97
Samoa	0.10	13	India	0.28	98
Palau	0.11	14	Philippines	0.29	99
New Zealand	0.13	19	Cambodia	0.31	108
Mongolia	0.14	23	Viet Nam	0.31	109
Malaysia	0.14	24	China, PRC	0.31	112
Papua New Guinea	0.15	26	Bangladesh	0.32	116
Bhutan	0.15	27	Lao PDR	0.33	123
Australia	0.16	30	Korea, Rep. of	0.34	130
Maldives	0.16	32	Sri Lanka	0.37	139
Solomon Islands	0.17	37	Taipei, China	0.38	146
Thailand	0.18	48	Pakistan	0.39	151
Fiji, Rep. of	0.19	52	Nepal	0.40	154
Kazakhstan	0.22	64	Indonesia	0.43	163
Armenia	0.23	65	Tajikistan	0.44	166

Note: Ranking pertains to 183 countries.

Source: Authors' calculations based on *Doing Business 2012*, World Bank.

Employment regulations

Among employment protection policy tools, minimum wages most visibly affect labour costs. The World Bank *Doing Business 2012* report, however suggests that it is not a binding concern in Asia and the Pacific since none of the countries have ratios of minimum wages to value added per worker that are above one.[8] Instead, hiring and firing restrictions pertaining to approval or notification of third party, separation pay, premia for over time and holiday work, and limits on the number of work hours appear to be more binding factors in determining labour costs as these regulations accrue to the cost structure of firms hiring labour.

At the same time, these policies affect the manner and speed with which labour markets are able to respond to changing demand and supply conditions. In particular, employment laws pertaining to job security and hiring restrictions were found to have a slowing effect on the adjustment process in labour markets (Jansen and Lee, 2007), while hampering growth potential by restricting the movement of resources to the most productive sectors of the economy (Chang *et al.*, 2004). Exploiting information on India's labour force size and federal system of government, Hasan *et al.* (2007) focus on job security and hiring provisions and find labour demand elasticities to be higher in states with more flexible labour institutions implying higher employment effects of trade reforms.

Employment policies also affect physical and human capital investments of both firms and employees. Protected labour markets usually imply higher bargaining power for workers, which translates to more incentive to acquire firm-specific skills. Tang (2011) demonstrated that this can become a source of comparative advantage as countries begin to export more firm specific goods. The wider implication is that countries with more flexible labour institutions specialise in sectors with higher demand and production volatility (Cuñat and Melitz, 2011). However, as in the infant industry policy approach, there remains a real danger that such strategies lock-in or encourage industrial protection policies that fail to graduate industries to a state where comparative advantage becomes intrinsic. Moreover, these studies have yet to be set in a dynamic context which may produce different policy implications once gyrations of the job markets are taken into account. Acquisition of highly firm- or sector-specific skills may also not be a prudent strategy given the emerging consensus that education geared towards continued learning for increased adaptation capabilities will be more important as increased volatility becomes a common trend in job markets (Jansen and Lee, 2007; Baldwin, 2006). Finally, extremely inflexible labour market institutions coupled with relatively lenient regulations on the movement of capital, even within a country, may encourage firms to invest more on capital equipment to the extent that capital and labour are substitutable.

Needless to say, all these have implications on the hiring decisions of firms, and hence on employment levels and working conditions. High labour costs and slow adjustment capabilities are factored into a firm's hiring function even during times of economic expansion. Firms may hire less during good times in anticipation of facing high dismissal costs during times of slowdown. The net effect may either be a lower overall level of employment or poorer quality employment through increasing resort to casual employees or informal sector workers to the extent that they are legal, or to the extent that prohibitions applying to the sector are poorly enforced. This issue is of particular relevance for developing Asia where the informal sector constitutes a major component of the labor force.

8. Only a few Asia-Pacific countries – Republic of Fiji, Nepal, Philippines, Solomon Islands and Vanuatu – have ratios above 0.60.

Ultimately, labour market institutions will also have consequences for the survival of domestic firms if foreign competition is introduced while labour market institutions slow down the necessary reallocation of factors of production.

Collective relationship regulations

Collective relationship regulations govern "the bargaining, adoption, and enforcement of collective agreements, the organisation of trade unions, and the industrial action by workers and employers." (Botero *et al.*, 2004, p.1339). It is easy to appreciate that policies governing collective relationships also affect labour costs and adjustment processes. In general, negotiating as a union strengthens the bargaining power of labour relative to a situation where markets are given free rein in determining working conditions and wages. This can easily be the case in countries like the Philippines where increasing monopolisation of economic sectors translates to growing influence of capital relative to labour (Felipe and Lanzona, 2006).

In most cases, owners of capital and labour, while not necessarily adversarial, have opposing objective functions. As such, some resources must be spent in facilitating agreement between the two groups. Still, regulations pertaining to FACB can be a way of facilitating efficient negotiations through better information, communication and trust (Freeman, 2007), easing the process through which an efficiency wage (or "efficiency compensation package") can be achieved. Indeed, using a panel of 162 economies, Kucera and Sarna (2006) found that FACB can have positive effects on manufacturing exports. A recurring concern about policies governing FACB, however, is their effect on employees and labour who are not part of the labour union.

Social security regulations

Credible social security mechanisms are an important component of any labour adjustment process in ensuring that the costs imposed by the adjustment process on individuals do not become oppressive. They also facilitate the transfer of labour from a losing sector or firm to the expanding branches of an economy. This is a policy area where attention is warranted as only a handful of developing countries in the region currently have social safety nets in place with meaningful coverage for employment related shocks.

Nonetheless, setting up employment security instruments affects labour costs. Most social security mechanisms are administered by the state, with financial contributions from both employees and employers. Asher (2010) demonstrated that similar set-ups apply in Asia and the Pacific, although the burden sharing varies across countries. In addition to government contributions, India and Singapore impose high burdens on both the insured and the employer, while PRC places a higher burden on the employer, which increases labour costs from a firm's perspective.

Social safety nets, when effectively designed and implemented, ease the adjustment process for labour, and to a certain extent, on firms. However, the sharing of burden among employers, employees and government must be carefully engineered such that the perceived additional costs on the part of employers do not end up discouraging job creation.

11.5. Adjustment costs

While the relationship between trade and employment is rarely a zero-sum game, and is frequently observed to yield efficiency gains, its impact on equity is less established, particularly in cases where politically contentious trade liberalisation poses a threat to vested interests. In the short run the attendant adjustment process following trade liberalisation can be

painful and unevenly distributed at the individual level. Capital is significantly more mobile than labour, and skill biased technological change brought in by foreign direct investments into developing countries has increased demand for skilled workers. This has meant that labour tends to bear the brunt of adjustment costs, and income inequality between skilled and unskilled workers can be exacerbated rather than narrowed as would be predicted by Ricardian models. Moreover, the greater costs fall on unskilled labour as the transition from lower skilled work to higher skilled work occurs.

Trade can support inclusive growth if workers and firms can adjust and shift into sectors with growing demand and adopt new technology. The utility of trade reforms cannot be seen in the abstract, but depends on policies and factors in other areas (e.g. labour mobility costs, the upgrading or retooling of skills, etc.). More broadly, the net effect of trade reform on the poor comes both from these employment effects and from the impact on prices that they pay for goods. In general, if the relative prices of goods accounting for a large share of the consumption of poor households fall, trade reforms can be deemed pro-poor.

Limitations in the extent to which increased market openness can contribute to recovery from the recent global recession and creation of employment opportunities is reflected in the extent to which job creation has not kept pace with the recovery in trade. Can policy help to address impediments to structural adjustment, and thereby increase the potential for employment opportunities in expanding areas of the economy? In the long term, how can trade policy promote positive and sustainable economic and labour market outcomes? Trade and employment can complement each other when markets are flexible.

While transfer payments can mitigate adjustment costs, targeting the losers is usually difficult and programs such as retraining or social protection are commonly preferred. Moreover, the mechanisms for transferring some of the gains from winners to losers are still inadequate. Politically difficult reforms are needed to manage the shift of labour and firms toward winning sectors to maximise the net gains. Finally, there is skepticism about government's ability to effectively and efficiently implement such programs in some Asian countries. Trade-displaced workers can differ from other job losers in terms of industrial occupation, skill level, age, gender, *etc.* and can be concentrated in certain areas or sectors, warranting special attention or facilitating compensatory targeting. But the priority should be a comprehensive policy framework that includes elements aimed at enhancing the mobility of workers, developing labour force skills, employment-oriented social assistance, and social safety nets.

Labour experiences the adjustment costs in the forms of unemployment, underemployment, lower wages, and job search frictions (Francois *et al.,* 2011). The need to manage the adjustment costs is imperative given the findings that openness has led to more volatile labour markets and more elastic demand for labour (Jansen and Lee, 2007). This is made even more urgent in Asia by the erosion of traditional social protection systems based on family and community ties accompanying rapid urbanisation (Park, 2010). Finally, having a credible adjustment system in place will be valuable in overcoming resistance to trade reforms that will yield long term gains overall despite short term costs to some sectors and individuals. A credible system can also be a means of effecting *Pareto* improvement- with the winners using some of their gains to compensate the losers from the trade reforms.

Job security regulations, insurance and social security

A significant amount of adjustment can be accommodated by ordinary labour-market churning, and more so in cases of rapid growth and structural transformation, as in Asia. But the post re-employment earnings for workers displaced from high-import-competitive

manufacturing can be significantly lower. Policies should aim to effectively reduce the costs of adjustment borne by a relatively small number of workers with minimal impact on the public budget, minimal distortions, and should be simple enough to be practical. Among possible policy options could be enhanced unemployment benefits, (re)training subsidies, and wage insurance.

While mostly well-intentioned, some labour protection policy tools are short sighted and in the long run may serve to prolong the duration of the adjustment process, thereby making it even more costly for the economy. Common examples are job security regulations such as severance pay and notification requirements prior to dismissals. Figure 11.6 shows that such policy tools are in use in most economies in Asia and the Pacific. Moreover, while dismissal notification regulations in the region is slightly less stringent than the world average, the same cannot be said of the average severance pay, costing around fifteen salary weeks.

Studies have shown that such regulations are indeed effective in preventing the dismissal of workers and can be a means of protecting workers from short term labour demand volatility (Francois *et al.,* 2011). They are however far from effective in dealing with enduring changes in the structure of demand for labour, which has been occurring and is expected to continue. Moreover, short term protection is often achieved at the cost of growth potential of an economy, and job creation potential in the expanding sectors of the economy. In the final analyses, such policies end up protecting jobs rather than workers (Blanchard, 2005).

Nonetheless, the popularity of job security regulations is easy to appreciate, especially from the point of view of developing countries, as it places the direct administrative and monetary costs of the adjustment process almost entirely on the employer. The indirect costs such as opportunity costs in terms of growth, and potential tax revenues from the expansion of industry winners are not immediately or overtly apparent to voters.

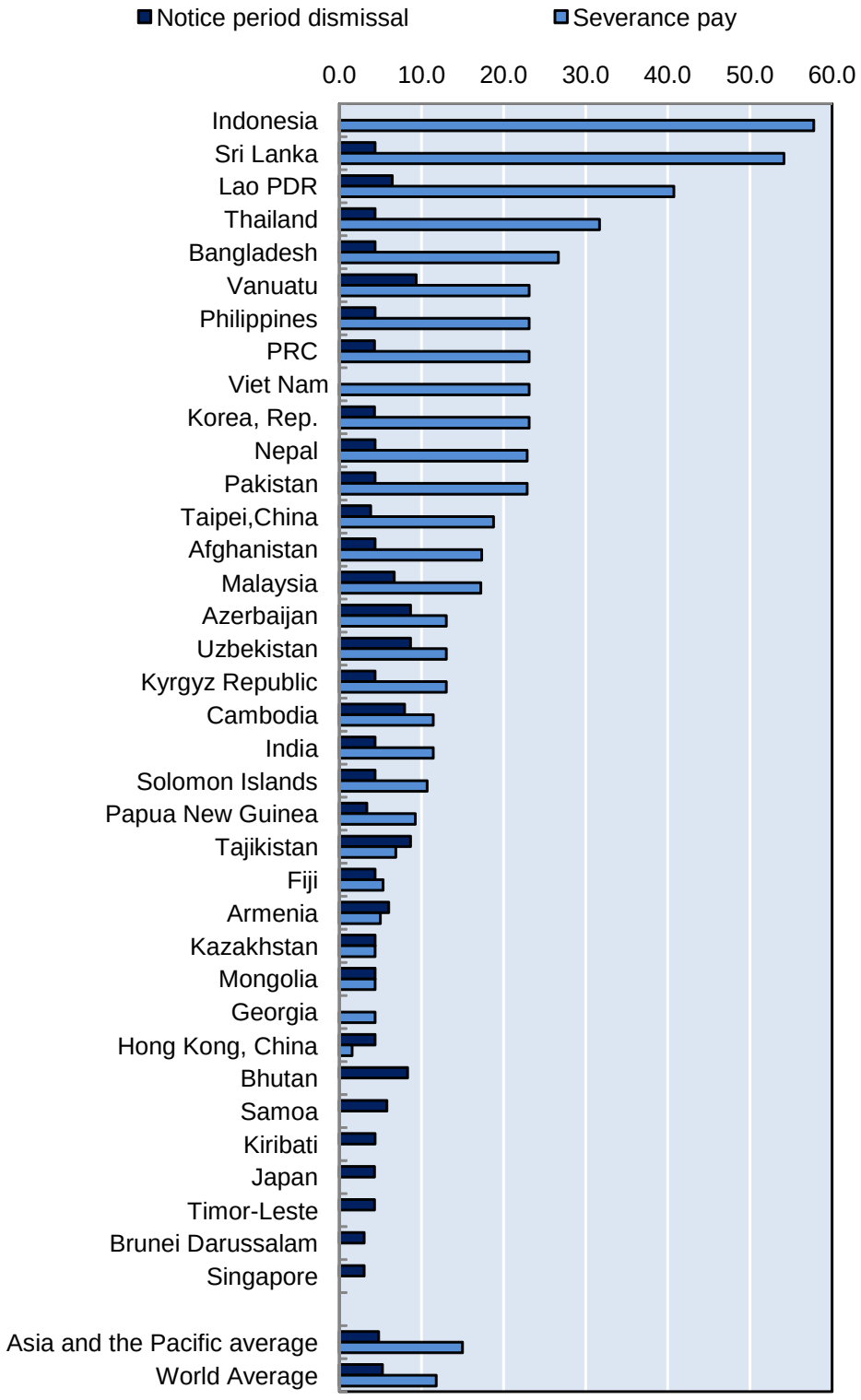
Economists generally agree that unemployment insurance (UI), wage and employment subsidies, retraining programs and job search services are more economically sound mechanisms for worker protection. These tools tend to be less distortionary, although the extent of their effectiveness in addressing the problems of adjustment is highly dependent on their design.

Unemployment insurance eases the adjustment process by smoothing the consumption patterns of workers over their lifetimes. This is operationalised by contributions from employees during their employment lifetime and disbursing benefits during periods of unemployment. Worker related social safety nets such as UI are mostly government administered with partial contributions from both the worker and the employers. UI designs vary according to contribution, coverage, eligibility criterion (nature of dismissal), compensation (full or partial), and length of eligibility for benefits. Studies have demonstrated that variations in designs along these parameters have palpable effects on how long unemployment spells last and the incentive of workers to actively seek re-employment (Vodopivec, 2009).

Only a handful of developing countries in Asia and the Pacific have UI schemes in place. The work of Scholtz (2009) identified six economies in East Asia and Southeast Asia with such schemes – PRC; India; Korea; Taipei, China; Thailand and Viet Nam. Kuddo (2011) also identified Armenia, Azerbaijan, Kazakhstan and Kyrgyz Republic as having UI schemes in place although formal sector coverage is less than 30% for Armenia and less than 10% for the others. Many countries also have some broad social security insurance in place that may cover worker disability, injury, and even unemployment (Asher, 2010). Coverage is however mostly limited to the work force in the formal sector which in a number of big Asian countries such as

Bangladesh, PRC, India, Indonesia, Pakistan, Nepal and Thailand still form a minority of the workforce (ADB, 2011b, 2011c).

Figure 11.6. Severance pay and notification requirements for worker dismissal



Note: Average figures are not weighted
Source: World Bank, *Doing Business 2011*.

The limited coverage of UI in the region can be explained by the limited administrative and institutional capacities of developing countries. Monitoring and administration is made particularly onerous by the large informal sector in Asia and the Pacific. Vodopivec (2009) suggests ways to overcome these constraints:

(i) institute an unemployment insurance savings account (UISA), where employees draw unemployment benefits from savings required as a fraction of their earnings;

(ii) contributions solely come from employees and employers;

(iii) use working in the formal sector as the sole disqualifying criteria for continuing benefit eligibility; and

(iv) piggy backing on existing social security schemes for administration of the UISA.

The first two solutions are intended to address the moral hazard problem inherent in insurance schemes and budget constraints of developing country governments, while the latter two are geared towards overcoming the administrative challenge posed by operating a comprehensive UISA system. These suggestions can be used as a basic framework to introduce UI or UISA systems in countries in the region. Nonetheless, it remains unclear how the large informal sector in Asia and the Pacific can benefit from such a scheme. The poor have high discount rates and it is therefore not easy to induce them to save. It is likewise impractical and costly for the government to enforce contributions from employers in the informal sector. An alternative is for government to collect the unemployment savings and pay interest rates for these contributions, but this would still be insufficient to have a near universal coverage. Policy makers may need to consider if other social safety net mechanisms such as conditional cash transfers might be more feasible given current circumstances. In the long run, the solution would still be to create an environment conducive to formalising the informal sector or in policy interventions designed to facilitate the formalisation.

Education, training and job search assistance

The general implication drawn from the increased volatility of market demand for human capital in the developed world has been to increase the flexibility of the working populations towards continuous learning (Jansen and Lee, 2007; Baldwin, 2006). But what are the human capital investment implications for the labour force in developing countries of Asia and the Pacific?

The question can be approached from two perspectives – the short term and the long term. In the short term, the most feasible response is retraining and job search assistance. In the longer term, the answer lies in the education system with due consideration to demographic trends.

Retraining can address some of the mismatch between labour demand and supply. This means that government bodies involved in such programs must monitor emerging labour market trends in domestic and world markets. Training institutions often fall into the trap of offering the same types of skill-training due to inertia, lack of strategic planning and coordination with other relevant government or private sector institutions, or resource challenges. Nonetheless, it should be easier for coordination and planning to take place in countries where governments actively pursue industrial policies. This was precisely the approach taken by Korea in designing its technical and vocational education and training (TVET), which has been a widely recognised success (ADB, 2011c).

Firms can also be tapped to conduct training during periods of economic expansion. Hahn and Park (2011) find that firms engaged in exporting activities in Korea increased productivity by investing in skill upgrading for their workers. In house training discourages firms from

dismissing workers during short term demand fluctuations, but the incentive for firms to engage in employee training is contingent on expectations of future expansion.

Assistance for job seekers is another measure that can mitigate information asymmetry and job search friction, thereby reducing transactions costs. Such interventions rise in relevance as the process of job destruction and creation increasingly proceeds faster. There is ample demand for such services as attested to by the proliferation of recruitment and headhunter services. Empirical studies on the industry are scarce, but these services seem to work better for more highly skilled workers. Recruitment services for low skilled jobs in developing Asian countries are strewn with anecdotes of abuse from excessive fee demands from recruitment agencies to outright human trafficking. This suggests an important role for governments in either regulating the industry or bringing information costs lower by making them more readily accessible to a wider population.

Service sector

The manufacturing sector as a source of employment will likely continue playing an important role in Asia and the Pacific. The population in the region is expected to expand from 3.9 billion now to 4.7 billion in 2050 (UN Population Prospects, 2011). No other region is as dense a market. Per capita income is expected to continue to grow and together with this, demand. Increased demand is particularly expected from traditionally current account surplus economies such as PRC, Malaysia, Singapore and Taipei, China, as they encourage their domestic populations to expand consumption.

Just the same, services are expected to grow in importance as a source of employment because of increasing expansion of task trade. Although it remains significantly below that of merchandise, trade in services has been continually increasing. Moreover, the sector has been a growing share of the economies in Asia and the Pacific as demonstrated in Figure 11.3. Hong Kong, China and Singapore are in fact already overwhelmingly dominated by the services sector.

The expansion of the services sector can also have positive impacts on employment through its productivity and efficiency effects. Services lubricate the economy by bringing down transactions costs. Francois *et al.* (2011) for example, stressed the importance of well functioning financial services in facilitating credit access for the private sector to move into expanding sectors in the economy. This suggests a possible reform agenda for some big Asian countries that have highly restrictive trade regimes on services. In particular, PRC, India, and Malaysia registered the highest restrictiveness index for the banking and insurance services among 55 countries for which Dihel and Shepherd (2007) computed these indices.

Infrastructure

Brooks and Menon (2008) highlighted that the expansion of infrastructure played an important role in making Asia a success story of liberalisation. Like services, infrastructure brings down transaction costs in an economy, enabling movement of production resources and products from places of surplus to places of scarcity. This eases the process of adjustment in the labour market. Labour resources are able to move (at least domestically) easily to places where jobs are plentiful. This is something that is nearly taken for granted in rich countries with good transport infrastructure and systems, where it is common to encounter workers who live in one metropolis and work in another.

Communications infrastructure has also played an important role in job search practices around the world and in substantially bringing down information costs for firms looking for

workers and for workers seeking employment. Some examples are how mobile telephony facilitated job search and entrepreneurship for housekeepers, porters, and hairdressers in Thailand, Pakistan and the PRC (Bhavani *et al.*, 2008).

However, the state of infrastructure development in economies in Asia and the Pacific varies widely. The World Bank's logistics performance index ranks infrastructure in Singapore; Hong Kong, China and Taipei, China as among the best in world, while those of Sri Lanka, Bhutan and Nepal are among the worst. Many economies lie in between. There are admittedly cases when overinvestment in infrastructure crowds out needed investments in other areas, but the poor quality of infrastructure in many countries in the region suggests that infrastructure investments still have large marginal benefits to their economies and the potential to boost trade and employment.

Sequencing issues

Trade liberalisation has typically proceeded by opening up competitive industries while attempting to protect politically or socially sensitive industries. Moreover, the degree of openness in terms of the manufacturing sector is generally more advanced than the services sector. This makes it difficult to establish a general ideal sequence as counterfactuals are hard to come by.

The PRC's experience with liberalisation is perhaps the closest example to a natural experiment available. The creation of isolated special economic zones (SEZs) in the 1980s and 1990s, where liberalisation was carried out resulted in huge employment in those cities and the influx of lower wage rural workers into the higher wage SEZs (Ebenstein, 2011). The success of the SEZs and other test cases convinced the government that the experiment could be extended country wide. However, such experiments as a norm are not feasible for other countries without such strong central governments. Instead, sequencing takes the form of staged liberalisation in most countries, leaving out sensitive sectors for later liberalisation. The sensitive sectors remain protected through tariffs, non tariff measures, or safeguard mechanisms such as those provided for in Article XIX of the General Agreement on Tariffs and Trade, or Article 5 of the Agreement on Agriculture. Ideally, these measures are in place to help economies and industries transition toward areas of comparative advantage. Successful stories of transition are however few and far between as a good adjustment process requires sound institutional foundations to carry out effective planning and implementation, which can be a daunting task for many developing countries. As a result, instead of buying time for losing industries to decline with minimal social consequences, or make necessary investments to boost competitiveness, protection measures further lock economies into protecting losing industries, often at substantial costs. Such policies subsequently prevent labour resources from making the adjustments as well.

While economically controversial, there may be valid reasons for protecting certain industries when their values are poorly reflected by markets and for other socioeconomic reasons. G33, an alliance coordinated by Indonesia for agricultural negotiations in the WTO, for example, cites livelihood security, food security and rural development as the rationale for retaining protection tools such as special safeguard mechanisms and special products' status for agricultural products. On average, 12% of Asia's labour force is rural, but country variations can range to over 60% as in the case of Afghanistan, Tajikistan, Nepal, Cambodia, Lao PDR and Myanmar.[9] Even rich countries defend the 'multifunctionality' of agriculture as a

9. Refers to average weighed by total labor force in each economy.

justification for protection. Policy makers however need to be clear on the extent to which a society is willing to restrain the adjustment process to protect these sectors.

11.6. Conclusion

It is widely accepted that Asia's economies have benefitted from trade liberalisation. The region's experience with trade-related effects on employment are however more ambiguous. This is partly because of the difficulty of disentangling the effects from other major developments in the global labour market brought about by geopolitical and technological developments. Studies attempting to investigate the relationship between trade and employment have thus far revealed that both positive and negative effects of trade on employment levels tend to be weak at the aggregate level, and that stronger effects are observed in the inter-sectoral reallocations of labour. During an earlier period, trade openness led to the narrowing of the wage gap between skilled and unskilled workers in East Asia as predicated by standard trade models. Later periods have however seen the trend diverge from traditional expectations as skill-biased technical change led to increasing wage inequality across countries. Meanwhile, a cross country study by Khor and Flanagan reveals that in many cases, trade has been good for labour conditions (Flanagan and Khor, 2011).

This review of the relationship between trade and employment is occurring in the context of many enduring shifts in regional and global labour markets. Asia's rapid growth has been accompanied by, and based on, rapid structural transformation. The proliferation of RTAs, expansion of production value chains, increasing task trade, improving quality of labour supply and continuing demographic transition pose considerable challenge to policy makers on the appropriate interventions to preserve the region's hard won gains and the expansion of good quality jobs with a view towards poverty eradication.

Realising the gains from trade undoubtedly involves labour reallocation, and trade displaced workers can face considerable costs during the adjustment process. The labour reallocation can be supported on the basis of efficiency as human resources are shifted from lower productivity to higher productivity activities. It can also contribute to equity when it prevents losses from being concentrated among lower income or otherwise disadvantaged workers, and when gains make growth more inclusive.

Market-opening measures must therefore be well-integrated and complemented by adjustment policies to achieve balance. Exporters may not create enough new jobs to replace those lost in import-competing firms, and the adjustment processes and their sequencing following trade reform or trade shocks are not always smooth. In addition, countries may need to provide adequate protection to individuals against external shocks emanating from openness. While openness provides an absorptive buffer against internal shocks, and can help countries to recover from external shocks, it also makes countries vulnerable to economic problems in their trading partners. Unskilled workers are continually disadvantaged by skill-biased technical change and more mundane advances in mechanisation. But they also benefit from the lower prices of imported consumer goods that greater trade brings. As indicated, labour policy based on empirical analysis and recognition of trade dynamics becomes extremely important to take advantage of flexibility in the labour market to ensure losses will be outweighed by gains wherever possible. Changing trade patterns and the economic context in which they take place will require continuous adaptations.

Policy responses do not need to consist of direct financial transfers (which may be politically unpopular) to displaced workers. Thus far, countries in Asia and the Pacific tend to rely heavily on job security regulations particularly on severance pay, which have acted to slow adjustment processes in the labour markets. But other active labour market programs that may be more

effective and less rigid include such elements as basic job-search services for all job losers, training, employment subsidies, or mobility and transition assistance. Careful targeting in delivery of services either through public employment services or private employment service providers will be important to contain costs and maximise impact. Deregulation in the formal sector can even improve the condition of informal workers, provided that the informal sector is supported in the process, including having capital allowed to flow to it.

Resource constraints will be a constant challenge for the developing countries of the region as they try to implement adjustment programmes. Redistribution of gains from trade is also made more difficult by the fact that capital is mobile relative to labour. It can therefore become more difficult to tax capital income especially for developing countries that have unsophisticated tax systems. Rodrik and Ypersele (2001) propose international tax coordination as a possible solution to this.

There is some fear in the current slowdown (as in previous cases) that trade policy will be viewed as the politically easy default approach to restimulating economies. This might suggest that we need less intervention at the border (i.e. lower tariffs and less customs red tape) with a more active public sector in other areas (i.e. improvements in infrastructure such as ports, rails and roads, and greater investment in human capital). But the crisis also brings a chance to enact politically difficult policies, including reform of inflexible labour markets, broadening access for Asia's huge informal sector, addressing youth unemployment, implementing social safety nets, etc. (ADB, 2011c). The increasing share of the service sector in economies of the region also suggests its potential to further expand and create high quality employment. This, together with expansion of infrastructure services and development of human capital will facilitate a greater ability to adjust to changing labour market situations.

Technology and demography will dictate the direction of the region's comparative advantage in the near future. Technology is changing the geography and scope of the production of goods and services. On the other hand, the region is aging although there is considerable diversity in the aging timing and structure. This makes it hard to predict with a high degree of confidence where the future comparative advantage of the region will lie, especially after the younger Africa and older Europe and North America are included in the equation. Broad implications that good quality basic education is essential and shifts towards education that increase the adaptability of workers, can however be drawn. Meanwhile, job search services, retraining or short-term TVETs (technical and vocational education and training) may be used to address less enduring shifts in labour markets.

Asia's rapid structural transformation continues driving changes in trade and employment patterns. Including the region's massive informal sector in the benefits of growth remains a challenge that is heavily tied to developments in labour markets. For a region so dependent on trade, and with the majority of the world's workers and the world's poor, the links between trade, employment and inclusive growth will remain critical for the foreseeable future.

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