BRIEFING PAPER

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Trade as a Tool for Employment Generation

This Briefing Paper examines the effectiveness of trade, and in particular export promotion, as a tool for employment generation by comparing and contrasting the liberalisation experiences of four countries – Bangladesh and Vietnam from Asia and Kenya and South Africa from Africa. Kenya and South Africa have been handicapped by a lack of active export promotion and the capital intensity of their exports. The Asian countries have converted the increase in exports better into employment benefits as the composition of their export basket has been dominated by labour intensive items, unlike the African countries. However, within the studied Asian countries, Bangladesh has stolen a march over Vietnam by further changing the composition of its export basket in favour of labour intensive products as export promotion has gathered momentum and by timing productivity enhancing innovation to coincide with a major enlargement of export markets in the 1990s so that no net negative employment benefits have been felt. In this way Bangladesh does offer a model for inclusive growth which might be worthy of emulation.

Introduction

While much has been written about the effect of globalisation on employment in the developed world similar literature on developing countries is surprisingly hard to find. The linkages between globalisation and employment become very hard to pin down because of the varying experiences of different countries. Some countries have seen manufacturing employment boom while in others there has been stagnation and even decline. This paper adopts a case study approach to understand why that is the case and suggests a conceptual framework which helps to explain the varying responses of employment levels to liberalisation.

The study of patterns and magnitudes of employment generation in developing countries has become important because of the third wave of globalisation which took place after the 80s. This phase was marked by a new development in which many developing countries integrated into the global economy and started exporting manufacturing goods as well as opening themselves up for import and foreign investment in the manufacturing sector. Such rapid and sweeping changes have enlivened the debate of the effect of liberalisation on employment, which is what this paper investigates.

Any liberalisation impacts employment primarily through three channels. First, the scale of production might change. If a good has a small demand domestically but a large one externally, it may be produced on a larger scale after liberalisation with salutary implications for employment of labour. Take the case of western clothes. Developing countries with their own traditional costumes might not produce Western clothing on a noticeably large scale. However, these are labour intensive goods which labour surplus developing countries might be more than competitive in supplying. Thus, there might be an expansion in the scale of production of readymade Western garments after liberalisation which might bode well for the magnitude of employment.

Next, liberalisation might cause changes in the relative sizes of sectors. For example, a labour intensive developing country might produce positive quantities of both necessary capital intensive goods (such as cars) and labour intensive goods (such as clothes) in autarky (a closed economy). As trade is opened up this country gets a chance to specialise in producing clothes and export these to labour-deficit countries where labour and, therefore, the production of clothes is much more expensive. The foreign exchange so earned can be used to buy required capital intensive goods from capital rich countries. Thus, consumption and output constraints are relaxed through liberalisation as the developing country can more fully utilise the factor in which it is abundant. In other words, a change in sectoral shares in gross domestic product (and therefore, in employment) might invariably accompany liberalisation of the economy. This can be a

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powerful means of employment generation. For instance, if the labour intensive sector expands at the expense of the capital intensive sector (both labour and capital are diverted from the latter to the former) there should be an employment boom. Obviously, the scale and composition effect may be correlated. In order to obtain a sharp delineation one has to impose the change in relative shares on the value of pre-liberalisation GDP to get the composition effect and then blow up the pre-liberalisation GDP with its changed composition to the level of the post-liberalisation GDP to get the scale effect.

Apart from the scale and composition effect there is yet another effect which is known as the process effect of trade. Thus, greater openness leads to dissemination of new technologies and their consequent adoption. Thus, the labour intensity or labour productivity associated with the production process of any given sector might change. For example, shoe making might become more mechanised, resulting in less labour being required to produce the same number of shoes, with negative implications for employment.

It is quite easy to see that these effects might add up to give a net negative or positive change in employment. The ultimate result obviously depends on factor endowments including skill endowments and the level of technological diffusion that occurs during globalisation.

This paper assesses whether trade in manufacturing has created jobs or destroyed them in selected developing countries and thereby tries to gauge the effectiveness of policies or trends associated with liberalisation in generating employment. This is done by analysing experiences of manufacturing sectors in four selected countries – Bangladesh, Vietnam, Kenya and South Africa. The rest of the paper is structured as follows. The next section describes the contrasting liberalisation experiences of these four countries. Then the various effects of liberalisation on employment are quantified, decomposed and explained. Thereafter, some conclusions are drawn.

Inferences for the Effect of Liberalisation on Employment

The four countries chosen here have been picked as they underwent significant changes during the study period – the 80s and 90s. There were significant increases in openness defined as the sum value of exports and imports as a proportion of GDP'. Vietnam exhibited striking changes in this index from a modest 30 percent in 1985 to over 105 percent in 2000. Bangladesh (18-30 percent) and South Africa (38-50 percent) showed similar modest changes of 12 percent each in the period 1980-2000 whereas Kenya showed almost no change at all.

Not only was the extent of liberalisation different in the four countries the instruments adopted for liberalisation were also different. While abolishing import quotas and reducing the effective rate of protection from 75.7 percent (1992-93) to 24.5 percent (1999-00), Bangladesh also sought to harness its export potential through the promotion of export processing zones (EPZs). Liberal incentives were offered to firms to set up units in the EPZs a 10 year tax holiday, zero duties on capital and intermediate good imports and permission to foreign firms to repatriate 100 percent of their profits. Thus, cheaper imports made increase in production and employment generation more viable; incentives for exporting firms further encouraged such increases. Vietnam also adopted measures similar to Bangladesh: reduction in tariffs and quotas and a vigorous programme of export promotion through EPZs with incentives such as import duty rebates.

South Africa and Kenya present models of liberalisation which differ significantly from those of the studied Asian countries. On the import side, liberalisation was similar enough with adoption of tariff reductions, removal of quantitative restrictions and rationalisation of tariff lines and bands. However, South Africa, unlike these two Asian economies, paid relatively little attention to export promotion and even ended its General Export Incentive System in the mid-90s. Like South Africa, Kenya too did not have an active export promotion programme; whatever happened was only on paper.

The difference in the stress on export promotion partially explains why Bangladesh and Vietnam did much better in terms of employment generation through liberalisation than the two African countries discussed here, import liberalisation and export promotion being complementary components of a viable employment and growth generating strategy.

Quantitative Assessment of Impact of Liberalisation on Employment

The Asian countries studied here always exhibited a markedly different export composition, in terms of labour intensity of products, as compared to the African ones. In both Bangladesh and Vietnam unskilled labour intensive items dominated and continue to dominate the export basket. As far back as 1976-80, 65.8 percent of the value of Bangladesh's manufacturing exports came from unskilled labour intensive commodities. In Vietnam the number was a much lower, but still quite high by absolute standards, 21.4 percent. In Kenya and South Africa the corresponding figures were almost insignificant at 4.1 and 4.8 percent respectively. This implied that in the case of Bangladesh and Vietnam the scale effect which generates employment increase through export increase was much stronger than that in the studied African countries.

Over the next twenty years the bias in composition towards labour intensive exports increased in the two Asian countries: in 1996-98 Bangladesh's labour intensive exports accounted for 89.9 percent of the value of its exports whereas in Vietnam the rise was even more impressive with the share climbing to 58.7 percent. The growth in the shares of labour intensive exports can be attributed to the growth of the ready-made garment export sector in Bangladesh (because of preferential treatment

Table 1: Number of Labour for Producing a Million Dollars of Output a Year		
	Exports	Import-competing
Bangladesh (1997)	259	91
Kenya (1996)	37	35
South Africa (1996)	16	21
Vietnam (1998)	214	96

Source: Jenkins, Rhys and Kunal Sen (2006), "International Trade and Manufacturing in the South," *Oxford Development Studies*, Vol. 4, No. 3, pp.299-322 *(as adapted from International Economic Databank (IEDB), Australian National University (ANU) and United Nations Industrial Development Organisation UNIDO data)*

accorded to it by the European Union (EU) and the quota restrictions imposed on its competitors, India and China by the Multi-Fibre Agreement) and garment and foot wear sectors in Vietnam. In addition, Vietnam also saw a shift in composition towards human capital intensive exports; the corresponding share increasing from an inconsequential 2.3 percent in 1976-80 to a very significant 12.7 percent in 1996-98.

Starting from a very low share of labour intensive exports, the two African countries did increase their share over the mentioned periods; however this increase was only 11.7 percentage points in the case of Kenya and 5.1 percentage points in the case of South Africa. Moreover, there was no dramatic change in the share of human capital intensive exports by both these countries. Thus, while the composition effect played a major role in employment generation in the Asian countries, it did not have much of a role in the studied African countries.

As a sequel to this more intuitive analysis Jenkins and Sen (2006) have also carried out a decomposition in which the total employment generated in the post-liberalisation period is decomposed into its components through an algebraic method. The results of this decomposition analysis are mentioned in Table 2. Several interesting results emerge:

In Bangladesh, export generation took place mainly through the labour intensive goods sector. This in turn implied that such export generation had a large employment augmenting effect – in other words, an inclusive pattern of trade induced growth was set in motion. In a sectoral study of such a growth experience, Box 1 tells the story of employment generation in the readymade garment sector in Bangladesh. Given the high average labour intensity of all production (Table 1), the increase in purchasing power generated through trade induced growth fed another round of employment increase through an augmentation of domestic demand. Thus, export expansion not only had a direct significant salutary effect on employment but also a large indirect positive effect as much of the resultant increase in domestic demand was for items produced in a labour intensive manner.

Interestingly, Column III of Table 2 seems to indicate that in Bangladesh till 1990 productivity increases were minimal and, therefore, both GDP and employment growth were as broad based as possible. It was only in 1990-97, when the benefits of trade induced growth had reached large sections of the population (358,000 jobs were generated directly through exports and another 355,000 through domestic demand oriented channels in 1975-1990) and the export stimulus had reached a sizeable magnitude, that a productivity increase took place. In other words,

Table 2: Decomposition of Manufacturing Employment						
	Total employment effect (I)	**Domestic demand (II)**	**Productivity Growth (III)**	**Export Growth (IV)**	**Import penetration (V)**	**Net employment growth from trade (VI)**
Bangladesh						
1975-80	55	3	18	60	-26	34
1980-85	56	75	-49	51	-21	30
1985-90	559	277	27	247	8	255
1990-97	864	435	-316	802	-57	745
Kenya						
1975-80	39	53	-23	4	5	9
1980-85	19	45	-43	5	12	17
1985-90	25	46	-37	3	13	16
1990-94	10	7	8	5	-10	-5
1994-98	10	-26	49	-8	-5	-13
South Africa						
1970-80	354	386	-160	16	112	128
1980-90	103	94	-69	64	14	78
1990-95	-125	123	-230	108	-126	-18
1996-2001	-169	14	-255	78	-6	72
Vietnam						
1995-99	340	435	-570	699	-224	475

Source: Jenkins and Sen (2006)

Bangladesh did very well in matching its labour productivity to the magnitude of external and domestic demand facing its economy to generate inclusive growth.

In Kenya the generally capital intensive nature of export production meant that very little employment was generated directly through export growth. For example, the period 1975-1990 saw only 12,000 jobs generated through export growth in Kenya. Thus, trade did not have very many positive implications for employment growth in Kenya during this period. Moreover, unlike Bangladesh, productivity growth kept on diminishing the employment generation potential of export growth during the period. Furthermore, in stark contrast to Bangladesh, the export stimulus did not achieve any momentum in the 1990s.

South Africa too did not exhibit trade induced employment generation comparable to that of Bangladesh because of the more capital intensive nature of its exports. In 1970-90 only 80,000 jobs were generated through export growth – a figure which compares very poorly to 300,000 jobs generated in Bangladesh in 1975-90. In the period 1990-95 employment generation through exports boomed with the creation of 108,000 jobs. However, with the withdrawal of general incentives to exporters such employment growth subsided in the next period.

Vietnam is quite similar to Bangladesh because of the highly and increasingly labour intensive nature of its exports. Unfortunately, the decomposition results can only be obtained for 1995-99 in Vietnam's case. The export stimulus to employment in Vietnam is quite high for this period (699,000 jobs) which is comparable to that for Bangladesh for the period 1990-97, given that Bangladesh has a population which exceeds that of Vietnam by 60 percent.

Box 1: RMG Industry in Bangladesh – Employment Generation through Export Promotion

The garment industry in Bangladesh was and continues to be characterised by highly labour-intensive production. In 1985, only about 0.1mn people were employed in the RMG industry, but over the next 20 years employment grew rapidly to over 1.9mn, accounting for 35 percent of all manufacturing employment in the country. Moreover, after accounting for employment multiplier effects, the total employment that depended on this sector in 2005 rises to 3mn. Around 80 percent of the work force directly employed by this sector in 2005 was accounted for by women. This contributed a gender balance to the workforce and thereby aided in better human capital formation, as women have been empirically observed to be better caretakers of the welfare and future of their children than men.

The trend growth rate of employment for the period 1980-2004 has been estimated at 24 percent per annum. Currently, for every US$3,600 worth of RMG export, there is one worker in the industry. Over the past two decades the employment elasticity of RMG export has decreased; this is mainly attributable to rising labour productivity in the recent past and to the changing composition of clothing exports as reflected in the growing share of knit-RMG, which is relatively less labour-intensive as compared to woven-RMG. However, on the whole, the sector remains highly labour intensive.

Source: CUTS International (2008), *Trade-Development-Poverty-Linkage: Reflections from Selected Asian and Sub Saharan African Countries – Volume II (Sectoral Case Studies)*

Table 3: Employment Growth (in %) due to Scale and Composition Effects

	Scale Effect	Composition Effect
Bangladesh (1990-97)	5.2	3.8
Kenya (1990-94)	0.2	-1.6
Kenya (1994-98)	0.9	-1.7
South Africa (1990-95)	-0.2	0
South Africa (1996-2001)	1.3	-0.3
Vietnam (1995-99)	5.6	-1.1

Source: Jenkins and Sen (2006)

Employment growth through trade can also be decomposed into the scale effect and the composition effect as mentioned earlier (Table 3). Note that both Bangladesh and Vietnam had very large 'scale effects' of employment growth, unlike South Africa and Kenya. This was because of the high labour intensity of production which converted small increases in the magnitude of exports to large increases in employment. However, Bangladesh scored over Vietnam in having a very large and positive composition effect as well. In other words, Bangladesh adjusted to opportunities for export by changing the composition of its export basket in favour of labour intensive commodities. This gave a further impetus to employment growth which was lacking in the case of Vietnam. The latter had a negative composition effect i.e. Vietnam's response to trading opportunities was to make its export basket more biased towards capital intensive products.

Conclusion

In this paper some lessons have been drawn from the experience of Bangladesh (and to a lesser extent Vietnam) which used the opportunities provided by trade to generate as much employment as possible. Both Bangladesh and Vietnam exhibited labour intensive modes of production in the late 70s. This implied that limited additional opportunities for export were converted into significant employment increases. In the case of Bangladesh there was a multiplier effect as households gaining through significant increases in employment added to the magnitude of domestic demand for predominantly labour intensive products, which gave a further boost to employment generation. Bangladesh also timed its productivity enhancing innovation better – in the beginning when exports grew at a slow rate and were at low levels there was no noticeable labour productivity enhancement, thus maximising employment benefits from export growth. It is only when the rate of growth of exports boomed and export levels reached significant

magnitudes that innovation took place. At that time the rate of export increase had become large enough to counter all productivity increases and result in a net positive employment benefit.

Bangladesh and Vietnam both had large and positive scale effects of employment generation through trade. As mentioned earlier, this was due to the high labour intensity of their production processes. In addition, Bangladesh used the channel of trade to make its growth process more inclusive as the opening up of the economy was marked by greater specialisation in labour intensive products. In other words, the composition of the commodity basket shifted towards products that involved more labour for the generation of a unit value of output. This was not achieved by even Vietnam where there was a gradual shift to exports of more capital intensive products.

Kenya and South Africa, in stark contrast to the Asian countries, did not come even close to maximising their employment benefits through trade as their exports were primarily capital intensive. Moreover, export promotion measures were weak and therefore, export expansion was inadequate. Whatever employment benefits could have been generated was whittled down by labour productivity increases due to innovation.

In conclusion, the following lessons can be drawn from Bangladesh's experience:

- trade can generate employment benefits for labour surplus economies if they use appropriately labour intensive technologies to manufacture exports; and
- the introduction of productivity enhancing innovation should be fine tuned to the level of export expansion so that employment benefits remain positive.

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This Briefing Paper is based on Jenkins, Rhys and Kunal Sen (2006), "International Trade and Manufacturing in the South," *Oxford Development Studies*, Vol. 4, No. 3, pp.299-322 to derive policy relevant conclusions about the relationship between trade and employment. Inputs from the CUTS study on Trade-Development-Poverty Linkages have also been used. It has been compiled by Siddhartha Mitra and Ravi Kiran Naik of CUTS International.