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Trade and Poverty Research Project in South Africa: Lessons and Policy Recommendations

By

Lawrence Edwards
Matthew Stern

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Introduction

South Africa is currently engaged in various trade negotiations at the multilateral, regional and bilateral level. The net impact of the resulting trade reforms should be to contribute to growth, employment and raising average incomes. But this net impact conceals a range of differential effects: the benefits of reform do not accrue automatically and equally to all households or communities, and in some cases poverty and unemployment may rise. More recently, the rapid depreciation and then appreciation of the rand have introduced a new source of change which has exceeded movements in tariffs. Policy makers need to be aware of these different effects and implement trade reforms in a way that maximizes the benefits for the poor.

The objective of the South Africa Trade and Poverty Research Project is to analyse the impact of specific trade reforms on poverty in South Africa. The methodological framework guiding the project is drawn from McCulloch, Winters and Cirera (2001), who describe the various linkages through which trade reform affects prices, consumption, production, and employment. The study explores these linkages through a combination of quantitative research techniques, five case study reports and a computable general equilibrium analysis. Some of the main results from this project are summarised in this paper. Importantly, the focus of this paper is on the policy lessons arising from this study. It does not deal with the specific research papers in any detail and is a scant reflection of the quantity of analysis that has been done. Readers are encouraged to visit the project website for the original material.[1]

This paper begins with a cursory review of the methodological framework guiding the project as well as a discussion of industry and household data used in the analysis. Section 2 describes the extent of poverty in South Africa and section 3 analyses tariff protection and liberalisation in South Africa during the 1990s. The next three sections explore the impact of trade and trade reform through each of the 'channels' described in the McCulloch, Winters and Cirera (2001) framework. Thus, section 4 examines the impact of trade reform on productivity and employment in South African *enterprises*; section 5 looks at the impact of trade on the volume and *prices* of goods consumed by different households; and section 6 evaluates the impact of trade liberalisation on *government* revenue and expenditure. The paper concludes with some policy and research recommendations.

1 Method and Data

1.1 Methodological framework[2]

The framework put forward by McCulloch *et al* (2001) focuses on the idea that any understanding of the effects of liberalisation requires a detailed appreciation of the various channels through which it can ultimately affect poverty. By focusing on the product market, labour market and government expenditure, three direct channels of influence are put forward: the distribution channel which affects price transmission; the enterprise channel which affects wages and employment; and the government channel which affects taxes and government expenditure (McCulloch *et al*., 2001:67). By analysing these channels of influence and their effect on poverty, a clearer picture of the ultimate result can be seen.

The first way in which poor households are affected by trade liberalization is through the effects that the opening of trade has on the product market via price transmission. Tariff liberalisation alters the price of traded goods, both exports and imports. The impact this has on the poor depends on a number of factors, including household consumption and production and the transmission of border prices to these households. In the first case, the effect of a price change for households depends on whether that household is a net consumer or producer of the relevant good. For example: a rise in the

[1] http://www.saldru.uct.ac.za/saldru_trade&poverty.html

[2] This section draws on Dodd and Cattaneo (2006).

price maize will raise welfare in households that produce surplus maize, but will negatively affect welfare in households who are net consumers of maize. Knowledge of consumption and production patterns at the household level is therefore important to understand how trade may affect poverty. Also important is whether border price shocks arising from liberalisation or exchange rate movements are passed through to producers and consumers. The transmission of price shocks is influenced by various factors including taxes, distribution costs, government price controls, market institutions, industry structure and market power, etc. In determining the effects of liberalisation on poor households, it is important to have a clear understanding of these transmission channels and the behaviour of the institutions comprising them (Winters, 2000).

The second channel of influence is the effect that the opening of trade has on the labour market and the resultant changes in wages and/or employment that affect the poor. Liberalisation alters the incentives on what to produce and therefore employment and/or wages.[3] How this affects the poor depends on how the wages and employment of those below, or just above, the poverty line is affected by the price shocks liberalization brings.

The final channel of influence is an indirect one whereby household incomes are altered by taxation and government spending on social programmes and transfers. Trade liberalisation may result in a decline in government income accrued through customs revenue. The effect on poverty depends on the importance of customs revenue to the fiscus and the response by government to changes in this revenue. Government may for example reduce transfers to poor households, or may compensate for the loss in revenue previously obtained from the trade sector by increasing other taxes. If these taxes are aimed at goods used in a large proportion by the poor, this obviously also has an adverse impact (Winters, 2000). While this channel is expected to be of minor importance to South Africa where tariff revenues account for around 4% of revenues, this is not the case for the other SACU members where tariffs account for over 50% of government revenue in some cases.

1.2 Data

The study is conducted at three different levels of aggregation. Industry level data classified according to the 2 and 3-digit level ISIC (International Standard Industrial Classification) is used to provide an economy-wide analysis of the extent of liberalisation from the early 1990s (Edwards, 2005), the impact of trade flows on employment and labour productivity (Dunne and Edwards, 2006) and the general equilibrium impacts of trade reform during the 1990s (Thurlow, 1996).

The tariff data are constructed at the 8-digit Harmonised System level from various sources including the Trade Analysis and Information System database (TRAINS), the Economic Research Division of the Industrial Development Corporation (IDC), the Trade and Industrial Policy Strategies (TIPS) and South African Government Gazettes (Edwards, 2005). Trade and output data are largely sourced from Quantech (2004) and the various Supply-Use tables provided by Statistics South Africa (1999, 2003). The heterogeneity of employment and their links to households as well as firms within broadly defined industrial sectors imply that changes at the industry level will have non-uniform impacts on production, employment, prices and poverty. Hence, the study extends the industry level analysis with a household level analysis and a number of case studies.

Most suited for the household level analysis is the Income and Expenditure Survey (IES) of 2000 (IES 2000) (SSA, 2002a) which is merged with the Labour Force Survey of September 2000 (LFS 2000:2) (SSA, 2002b). Although there are some concerns about the reliability of the IES and LFS datasets, it remains the most recent and comprehensive source of combined household income/expenditure and employment information in South Africa. The household data are firstly used in a simple accounting exercise where the linkage between traded sectors and income and employment within households (poor and wealthy) is outlined (Pauw *et al*. 2006). This analysis provides some sense of the direct impacts from changes in employment and income arising from trade on the welfare levels among the poor. The household level data are then used to investigate the impact of trade liberalisation in South Africa on the poor via its impact on household consumption using a benefit-incidence analysis approach (Daniels and Edwards, 2006).

[3] The effect on employment and wages is dependent on the elasticity of labour supply. If labour supply is inelastic, then negative shocks to labour demand give rise to declines in wages. If wages are fixed, the effect will be a change in employment.

Five industry case studies were selected by the project reference group: motor vehicles, polymers and household chemicals, small household appliances, wheat and flour and clothing. The chosen sectors reflect a wide range of trade, industry and policy issues and include one staple agricultural product and the related agro-processing industry; two 'light' manufacturing industries; and two 'heavy' manufacturing industries. Two of the case studies focus on primary goods; two intermediate goods; and four cover final consumption goods. Although no fixed methodology was applied to the case studies, they do each address at least one of the 'channels' identified in the McCullough (2001) framework.

Table 1. Case studies

	Primary good	Intermediate good	Consumption good
Motor vehicles			X
Polymers and household chemicals	X	X	X
Small household appliances			X
Wheat and flour	X	X	
Clothing			X

The five case studies provide for a more focussed analysis of trade and poverty at the industry and sometimes product level. These case studies draw on some of the data described above but they also include a much wider range of qualitative and secondary information. This includes company and stakeholder interviews; newspaper and financial reports; and previous research. Key characteristics of each sector are summarised in the table below.

Table 2: Characteristics of case study sectors

	Characteristics
Motor vehicles	– MIDP implemented in 1995 provides substantial protection and support – Vehicle exports grew from negligible amounts in 1995/96 to over 100,000 units per year now – Imports grew from about 20,000 units per year in 1995 to 120,000 in 2004 – Investment rose from less than R1 billion in 1995 to over R3.5 billion in 2004 – Employment in assembly has fallen from 39 000 in 1995 to around 32 000 in 2004; employment in the motor trade has grown from 178 000 to 194 000 over this same period – Tariff protection on cars fell from 65% in 1995 to 32% 2006
Polymers and household chemicals	– Both markets are highly concentrated: two companies dominate polymer production and 1 company dominates the household care market – SA is a net importer of most polymers and households consumables and domestic prices are set at the import parity price – Upstream employment is low; with 30 000 people employed in the downstream plastic industry – Tariffs on basic polymers have fallen from 45% in 1995 to 10% in 1999; there has been very little decrease in tariffs on downstream plastic products and household consumables
Small household appliances	– Two companies dominate the South Africa market with 27 brands and 80% of consumption – SA is a large net importer of appliances and imports from China now predominate – Total employment in manufacturing is around 560, most of whom are seasonal – Tariffs on vacuum cleaners and irons have remained at 20% since 1988; those on kettles, toasters and cooking equipment have fallen from 30% to 20%
Wheat and flour	– Wheat is South Africa's second most important grain crop in terms of production and consumption, after maize – South African is an importer of wheat and an exporter of wheat flour – There are between 4 000 and 6 000 commercial wheat farmers in South Africa employing about 28 000 people; with a further 3 800 employed in the milling industry – The industry has undergone substantial deregulation over the last few decades and the variable import levy on wheat and flour was replaced with a 2% duty in 2005
Clothing	– Lower tariffs, rising Chinese exports, and the end of the multi-fibre arrangement have contributed to the decline of the SA clothing industry – Imports exceed exports by a factor of three and import values have trebled over the last five years – Total employment is estimated at between 110 000 and 160 000; between 70 and 80% are woman – Tariffs on clothing have been reduced from 100% in 1994 to 40% in 2005

2 Poverty in South Africa

There is an extensive literature on poverty in South Africa [4]. This section draws on Pauw et al. (2006) and looks only at those features of poverty that are key to understanding the affect of trade-related changes in employment on the poor. Rather than defining an absolute poverty line, "poor" refers to the individuals in the first two quintiles[5] (each quintile contains 20% of households) and in some instances those in the first quintile are referred to as the "ultra poor".

The severity of poverty in South Africa is clearly shown in Table 3. Fifty-six percent of individuals are classified as poor of which more than half are "ultra poor". Given South Africa's colonial-era and apartheid legacies the poor are concentrated in rural areas, particularly the former bantustans, and amongst Africans, women and children. In addition to their rural isolation, a high proportion of adults in poor households (35% to 40%) do not participate in the labour force, and of those that do participate, more than half (30% to 35% of all adults) are unemployed.

It is not only the fractions of employed that differ between the various quintiles, but also the types of jobs that are held by those that are employed. Almost 60 percent of the employed in poor households are either in low-skilled occupations or subsistence farming. The share of poor employees in skilled occupations is less than 10 percent. This should be compared to the 72 percent of workers in skilled occupations in the richest quintile.

Table3: Basic features of household per capita expenditure quintiles, 2000

	Quintile					
	1	2	3	4	5	All
Basic features of households						
Share of households (%)	20	20	20	20	20	100
Share of population (%)	32.1	23.6	18	14.4	12	100
Avg. exp. (Rands/annum)	1 019	2 549	5 219	12 607	53 170	10 048
Number (thousands)	13 820	10 146	7 723	6 180	5 156	43 024
Demographic characteristics (proportion within quintiles)						
African	96.5	90.4	81.0	62.7	28.1	79.2
Rural	73.0	51.9	32.9	18.9	10.0	45.5
Urban	27.0	48.1	67.1	81.1	90.0	54.5
Bantustan (rural and urban)	58.0	40.9	24.8	17.9	7.0	36.1
Labour market participation status of adults (proportion within quintiles)						
Non-participants (expanded)	40.3	35.2	27.7	23.7	20.2	31.0
Unemployed (official)	19.8	19.7	18.1	11.3	4.0	15.7
Unemployed (expanded)*	15.9	10.9	8.7	5.3	1.7	9.5
Employed	23.9	34.2	45.6	59.7	74.0	43.7
Occupational characteristics of employed (proportion within quintiles)						
Skilled	9.7	17.7	25.3	43.2	72.1	37.4
Semi-skilled	23.6	28.0	31.3	31.0	19.1	26.5
Low-skilled	43.8	42.6	38.7	22.5	5.6	28.2
Subsistence farmer	20.1	8.5	2.2	0.6	0.1	5.1

Source: Pauw et al. (2006).
Notes: Values based on the 2000 Income and Expenditure survey.

This cursory analysis shows that one of the defining causes of poverty is that poor households often lack connections to the labour market and especially the better remunerated sections of the labour market. Individuals in these households live far from formal sector jobs and do not have the skills to compete for these positions. These weak linkages suggest that poor households are relatively isolated from output shocks that are induced by trade or other factors, within the formal sector, and may be less vulnerable to employment losses or gains arising from trade liberalisation. This relationship is explored in more detail later.

[4] See for example the series of papers published as chapters of a book entitled "*Fighting Poverty. Labour Markets and Inequality in South Africa*" (Bhorat *et al.*, 2001).
[5] See for example May *et al.*, 1997

3 Tariffs, Protection and Openness

South Africa began an ambitious set of tariff and trade policy reforms in the mid-1990s. This included substantive multilateral liberalization through the WTO; the elimination of quotas, export subsidies and most import surcharges; the replacement of most formula, specific and mixed tariffs with ad valorem duties; and new bilateral agreements with the EU and SADC. Table 4 shows the evolution of the tariff structure from 1990 to 2004. The tariff structure has been simplified through a substantial reduction in the number of tariff lines, the replacement of most compound, specific formula-based and mixed rates by ad valorem tariffs, and some reduction in the number of rates levied.

Table 4. Structure of SACU Tariffs, 1990-2004

	1990	1994	1998	2004 MFN	2004 EU	2004 SADC
No. of tariff lines	12475	11231	7773	6697	6697	6697
Ad valorem	8649	7707	5793	6492	6504	6658
Compound	66	51	6	1	0	0
Specific	499	398	214	135	135	37
Mixed	566	2071	1736	64	53	2
Formula	2695	1004	24	5	5	0
No. of tariff bands						
Ad valorem	38	37	45	38	54	25
Other	695	686	230	62	47	18
Duty free (% tariff lines)	24	26	42	53	56	81
Domestic tariff spikes (% tariff lines) [a]	0.7	3.7	4.5	8.9	8.5	14.9
International tariff spikes (% tariff lines) [b]	43.7	43.5	39.4	21.2	20.1	5.8
Nuisance rates (% tariff lines)[c]	12	11	6	7	6	3

Notes: Calculations based on tariff schedules including *ad valorem* equivalents.
a. Domestic tariff spikes are defined as those exceeding three times the overall simple average applied rate.
b. International tariff spikes are defined as those exceeding 15%.
c. Nuisance rates are those greater than zero, but less than or equal to 5%.

Source: Edwards (2005)

Of considerable if not most importance of course is the fact that nominal tariff rates have been coming down. According to Edwards (2005), the unweighted average nominal tariff (scheduled rates, including surcharges) on manufacturing fell from 22.9% in 1994 to 8.2% in 2004 (Table 5).[6] This appears to indicate substantial liberalization of trade. Despite initial appearances, however, trade liberalization has been far less complete than might be thought.[7] The number of ad valorem tariff bands, at 38, is extremely high and well above the country's stated objective to reduce to just 6 ad valorem rates. In addition, the complexity of the tariff structure has been increased by the use of special rebates and by continued detailed differentiation of tariffs within sectors. Rather than setting relatively low and uniform tariffs across all products, as intended at the launch of the reforms, tariff policy has continued to be negotiable (Flatters and Stern, 2006).

[6] These values include surcharges in the early 1990s. Cassim and van Seventer 2005 estimate that the unweighted average nominal rate fell from 17.4 percent in 1996 to 8.3 percent in 2004 and the import value weighted average went from 11.0 to 7.5 percent over the same period.
[7] Edwards (2005) concludes that South Africa has liberalised no faster than other lower-middle-income economies.

Table 5: SACU Tariffs, Employment and measures of Openness by Sector, 1994-2004

Sectors [SIC classification]	Average scheduled tariff rate		Effective Protection Rates		Export orientation		Import penetration	
	1994 (1)	2004 (2)	1993 (3)	2004 (4)	1994 (6)	2002 (7)	1994 (8)	2002 (9)
Agriculture, forestry & fishing [1]	**9**	**3.3**	**9.9**	**1.7**	**16.0**	**18.6**	**5.7**	**9.1**
Mining [2]	**2.8**	**0.8**	**2.3**	**0.2**	**62.6**	**68.0**	**51.5**	**60.9**
Manufacturing [3]	**22.9**	**8.2**	**52.2**	**13.8**	**15.5**	**29.5**	**23.2**	**35.8**
Food [301-304]	22.8	11.2	94.9	40.7	6.7	9.1	7.6	9.8
Beverages [305]	36.4	12.3	86.2	21.8	6.8	13.2	3.7	5.9
Tobacco [306]	46.1	29.7	683.6	263.6	3.5	7.3	1.9	1.0
Textiles [311-312]	41.2	16.5	240.5	60.8	13.6	19.1	24.2	31.8
Wearing apparel [313-315]	75.1	31	325.9	91	9.7	25.1	8.4	19.7
Leather & leather products [316]	25.9	11.4	76.8	19.9	37.9	39.4	35.8	38.2
Footwear [317]	47.9	22.4	163.7	50.9	4.6	4.9	17.9	46.6
Wood & wood products [321-322]	14.8	8.7	42.2	15.3	14.0	22.8	10.9	15.0
Paper & paper products [323]	11.4	6.5	21	11.5	19.9	19.6	14.2	9.5
Printing & publishing [324-326]	16.1	4.7	36	4.5	2.3	2.8	17.9	23.5
Coke & refined petrol [331-333]	12.6	3.4	35.2	8.5	14.1	33.9	12.6	28.0
Basic chemicals [334]	8.3	1.7	16.8	1.5	40.4	51.7	45.2	52.1
Other chemicals [335-336]	16.4	4.3	39.8	7.2	5.3	15.3	22.1	32.3
Rubber products [337]	19	10.6	51.1	31.4	9.7	25.4	21.8	34.8
Plastic products [338]	19.9	9.6	65.6	20.1	4.6	12.2	9.9	18.8
Glass & glass products [341]	17.2	7.3	40.7	13.6	9.7	15.0	18.2	26.7
Non-metallic minerals [342]	15.5	5.6	38.6	10.9	7.8	11.6	10.3	20.7
Basic iron & steel [351]	9	3.9	19.9	9.7	45.3	63.6	11.2	17.6
Basic non-ferrous metals [352]	8.8	2	16.6	2.7	44.6	27.6	17.5	20.1
Metal products [353-355]	18.5	7.8	62	16.4	10.9	17.7	10.6	18.6
Machinery & equipment [356-359]	10.5	3.4	20.8	2.8	16.8	54.6	56.3	77.7
Electrical machinery [361-366]	18.5	7.2	47.2	14.1	7.7	15.4	31.9	38.1
Communication equip [371-373]	24.1	2.7	60	0.9	9.6	44.2	59.4	88.1
Professional & scientific [374-376]	12.4	0.3	14.7	-5.8	23.7	62.5	72.8	91.7
Motor vehicles [381-383]	26.1	14.6	81.8	31.8	12.4	44.8	30.1	54.8
Other transport [384-387]	12.3	0.8	18.4	-3	15.8	51.2	43.5	82.2
Furniture [391]	32.2	17.4	89.7	47.2	21.8	52.1	5.3	29.2
Other manufacturing [392-393]	26.9	5.8	49.9	17.4	26.0	40.0	22.9	33.5

Source: Edwards (2005) for tariff data and Quantech (2004) for trade and employment data.
Notes: Protection rates include surcharges. The tariff rate for 2004 is the weighted average (using 2003 import values) of MFN, EU and SADC rates. The change in nominal and effective protection is between 1994 and 2004 (using the weighted average) and is calculated as (t1-t0)/(1+t0), where t represents the level of protection.
Export orientation is calculated as share of exports in domestic production, while import penetration is calculated as the share of imports in domestic consumption (output+imports-exports). Both measures use data valued in current prices.

The average tariff rate for manufacturing also hides substantial variation at the product and industry level with many of the products actually produced in South Africa continuing to have very high levels of tariffs. The case studies confirm that this is certainly true of small household appliances, clothing and textiles, plastic products and the motor industry. In these four industries, tariffs remain at 20% or higher for most final products. Tariffs on wheat and wheat flour were previously based on a complex pricing formula, but this was replaced with an ad valorem tariff of just 2% in 2005.

Tariffs on outputs do not reflect the full impact of trade protection on local producers because they do not show how tariffs on imports effect the cost of inputs used in the production process and they do not account for the impact of export and other incentives. *Effective rates of protection* incorporate all of these effects to provide for a more inclusive measure of level of protection resulting from trade and industrial policies (see box 1 for a fuller explanation). Effective rates of protection have been calculated by Edwards (2005) for the broad industrial sectors (Table 5) and at the product level in two of the case studies: the auto industry and consumer appliances.

Box 1: Calculating Effective Rates of Protection

The *effective rate of protection* is a standard indicator of protection used in international trade policy analysis that accounts for tariffs on outputs as well as those on inputs. It provides an estimate of the percentage increase (or decrease) in domestic value added in the presence of prevailing import duties and incentives relative to what it would be under free trade and in the absence of incentives.

Effective rates of protection can be derived from the following basic formula:

$$ERP = (VA^d - VA^w)/ VA^w \times 100$$

where VA^d is the value added in the activity at protection-inclusive domestic prices (after accounting for the effect of tariffs on inputs and sales)

and

VA^w is the value added in the activity at undistorted world prices (no tariffs on inputs or sales).

(Flatters, 2004).

As with nominal tariffs, effective protection rates have declined for the manufacturing sector as a whole (52% to 14% from 1994-2004), with particularly large declines occurring in tobacco, textiles, wearing apparel, footwear and communication equipment. Despite this, tobacco, textiles, wearing apparel and footwear still remain amongst the top 5 most protected sectors with ERPs (calculated using schedule rates) still exceeding 40% (Table 5).

The case study analysis reveals that aggregate industry level averages sometimes hide wide variations in ERP at the product level. In the auto sector, the combined effect of tariffs and MIDP incentives currently contribute to an effective rate of protection of 29 percent in export markets; and between 52 and 83 percent for domestic vehicle sales in 2005[8] (20% to 50% higher than the industry aggregate calculated by Edwards). Effective rates of protection are even higher on some household appliances, estimated at 70% in the domestic market in 2004 (compared to an average of 14% for the electrical machinery industry). Furthermore, the ERP on some appliances, such as vacuum cleaners and irons, has doubled over the last 15 years. This is because the fall in output tariffs on these appliances has been accompanied by an even faster fall in the tariffs on key inputs, such as plastics and steel.

3.1 Incentives, subsidies and other distortions

The preceding analysis confirms that the aggregate decline in protection seen at the industry level is not always evident at the product level. It would seem that a large number of tariff peaks remain hidden within South Africa's complex tariff schedule. South Africa's trade policy is further complicated in some industries by other forms of industrial support.

In the auto sector, the tariff phase-down is part of a more extensive government initiative, the Motor Industry Development Programme (MIDP). The MIDP has succeeded in helping the domestic industry to reintegrate into the global economy by creating substantial incentives to invest and to produce for export (see box 2 below). Its impact on employment and prices is more controversial. Similarly, in the clothing and textile sector, high tariffs were supplemented by a duty credit and drawback scheme to support commercial exporters. This scheme was largely inaccessible to informal and employment-intensive Cut, Make and Trim (CMT) operators.

[8] High levels of effective protection are shown to remain until the scheduled end-date of the MIDP in 2012. The effective rate of protection for domestic sales depends on the share of imported inputs in total production costs.

Box 2: The MIDP: Its Rationale and How it Works

The MIDP was designed to help the South African automotive industry adjust and increase its competitiveness in the new post-apartheid trade policy environment. The idea of the program was to provide incentives to rationalize production into a smaller range of products and achieve economies of scale through exporting them. All other products would be imported. At the same time, the amount of protection and the size of the incentives were designed to be scaled down gradually through the simple mechanism of reductions in the import duties on vehicles and components.

The program comprised four principal elements:

- a gradual reduction in import duties on both vehicles and components,
- an export-import complementation scheme under which vehicle and components exporters can earn tradable "Import Rebate Credit Certificates" (IRCCs) to offset duties on imported vehicles and components,
- access to the standard duty drawback program for exporters, under which all import duties paid on components and intermediate inputs used in exported vehicles and components can be rebated, and
- a duty free allowance on imported components of 27 percent of the value of vehicles produced for the domestic market.

The MIDP was expanded in 2002 to include a direct investment subsidy in the form of a "Productive Asset Allowance" (PAA) that provides import duty credits equal to 20 percent of the value of qualifying investments.

Producers for the domestic market benefit from tariff protection against imports and from the duty free allowance (DFA), which offsets the cost-raising effect of import duties on components. Consumers pay for this through prices that are higher than they would be in the absence of the import duty on vehicles, and the Government pays by foregoing customs duties on components.

Firms producing vehicles or components for export qualify for duty drawbacks on all imported components and also receive IRCCs in proportion to their exports. These allow them to import motor vehicles (and components) duty-free and sell them domestically at the duty-inclusive price. The value of the IRCCs depends on the price mark-up permitted by the tariff. Without this price mark-up the principal MIDP incentive would be of no value to vehicle and components exporters.

(Flatters and Netshitomboni 2006, pg. 3)

Trade is not only affected by tariffs and incentives in the local market. International protection and price distortions can have a significant impact on South African exports and prices in the domestic market. This is clearly illustrated in the wheat case study. Whereas the South Africa market has been deregulated and tariffs reduced to a low 2%, most developed countries continue to impose high tariffs on wheat imports and provide significant subsidies to domestic producers. In the EU, domestic farmers receive subsidies in excess of R5 000 per hectare; and farmers in the USA receive subsidies of about R850 per hectare. This keeps wheat prices artificially low and is of significant benefit to consumers, but it makes it difficult for local producers to compete at home and abroad. The removal of tariffs and subsidies would drive world wheat prices upwards by between 10 and 14% (Hobson, 2006).

Any analysis of trade and poverty in South Africa therefore needs to address the impact and influence of a wide range of policy instruments, at home and abroad, on domestic production, employment and prices. Similarly, any resulting policy proposals must look beyond the effects of domestic tariffs and the efficiency of local distribution mechanisms. In the auto and clothing sectors, the role of the MIDP and other government support programmes or regulations need to be better understood. In the wheat industry, what can or should South Africa do to counter the effects of global subsidies and restrictions? Some of these issues are explored in more detail below.

3.2 Trade performance

The increased openness of the South African trade regime is reflected in rising shares of exports and imports as a share of production and consumption, respectively. Export orientation within manufacturing rose from approximately 16% to 30% between 1994 and 2004, while import penetration rose from 23% to 36% over the same period (Table 6). The increased openness occurred

across most sectors, with particularly large increases in export orientation in motor vehicles (due to the MIDP), chemicals and furniture and large increases in import penetration in footwear, clothing and textiles.

However, South Africa's post-1994 trade performance is not what might have been expected of an economy undergoing substantial trade liberalization and lessening of external export constraints. It was anticipated that the end of sanctions and the deregulation of trade and other economic control measures would give a substantial boost to South Africa's relative and absolute export performance. Table 6 shows the extent to which South African exports have underperformed world trade since the late 1980's. The country's share of world exports has fallen from 0.7 to 0.5 percent over the post-1994 decade.

To what extent is this poor performance due to the composition of South Africa's exports? South Africa's exports are highly concentrated in natural-resource-based products, which experienced relatively low growth in world markets over most of this period. This is just part of the problem. South Africa's export performance was weak even in natural resource-based products; and export growth and diversification were poor compared to other middle-income and resource-based exporters (Edwards and Alves, 2005). The relatively strong performance of South Africa in 'medium technology' exports is almost fully explained by auto exports. All other sub-sectors have performed worse than the basket of resource-based economies (and well below the average performance of other developing countries).

Table 6: South Africa's export structure and annual average growth rates for selected countries and regions by broad technology category, 1988 to 2002 (US$)

	Share structure of SA exports		Simple average annual growth rate, 1988-2002						
	1988 (1)	2002 (2)	South Africa (3)	High income (4)	Low income (5)	Lower middle income (6)	Upper middle income (7)	Resource Group (8)	World (10)
Total Trade			2.0%	5.4%	1.7%	6.6%	7.4%	5.1%	4.6%
Primary products	71.8%	46.2%	-1.1%	3.2%	0.6%	2.6%	4.7%	3.2%	2.4%
Total Manufacturing	27.7%	53.4%	6.9%	5.7%	6.5%	9.5%	8.6%	7.8%	8.1%
Manufacturing sub-sectors	100%	100%							
Resource-based	*44.7%*	*31.4%*	*4.3%*	*4.4%*	*6.9%*	*8.1%*	*7.7%*	*7.5%*	*6.7%*
Low technology	*19.4%*	*16.3%*	*5.6%*	*4.5%*	*9.3%*	*9.4%*	*7.3%*	*8.3%*	*7.9%*
Medium technology	*33.2%*	*47.5%*	*9.7%*	*5.5%*	*8.0%*	*11.5%*	*8.3%*	*7.7%*	*8.3%*
MT1: Automotive	2.3%	13.9%	21.7%	7.6%	16.5%	19.6%	9.4%	15.2%	13.7%
High technology	*2.7%*	*4.9%*	*11.5%*	*9.2%*	*8.8%*	*19.0%*	*12.1%*	*13.4%*	*11.7%*
Number of countries				22	37	22	17	25	98

Source: Edwards and Alves (2005)

Notes: Growth rates for the regions are the simple average country growth rate. EAP is East Asia and Pacific. Primary product and manufactures shares do not sum to 100% due to the omission of special transactions and unallocated products. The manufacturing sectors sum to 100%.

South Africa's generally weak export performance is also found in the case studies. Exports of consumer appliances and clothing have increased over the last decade, but not as fast as imports. This is unsurprising – high tariffs in these sectors do little to encourage competitiveness and export growth. South Africa is also a net importer of wheat and prospects for expanding production are low. The only sector that has seen rapid export growth is the auto industry and this can largely be explained by the high level of support given to vehicle and component manufacturers through the MIDP.

This does not mean that export success stories do not exist. Within each of these sectors there are examples of internationally competitive firms or products. South Africa's exports of vacuum cleaners to Europe have doubled over the last few years, albeit off a very low base. Exports of some components, and perhaps even vehicle exports, would continue without government subsidies. Flatters and Netshitomboni (2006) identify some component manufacturers that already export

competitively and do not qualify for MIDP benefits[9]. Even in the clothing sector a number of large manufacturers continue to export significant volumes to the USA in spite of the strong rand and increased competition from China.

A number of factors emerge as key determinants of trade performance. Foremost among these is the level and volatility of the rand, a relationship supported by substantial empirical evidence (Alves and Edwards, 2005). When the currency swings by 30% a year, in either direction, it is difficult to isolate small changes in tariffs and world prices. On the back of the 2001 rand depreciation manufacturers shifted sharply into the export market. For a short period of time South Africa exported large numbers of kettles to Europe and jeans to the USA (assisted by AGOA). Exports of jeans and kettles ceased, just as quickly, when the rand strengthened.

Another common determinant of export success is the ability to access high quality and low priced raw material inputs. In the clothing sector, "Access to textiles is a highly limiting factor cited by a number of respondents. Competitiveness in the world market demands ready access to a reliable supply of a variety of quality textiles" (van der Westhuizen, 2005: 23). Those firms that do still export have either integrated vertically with a textile manufacturer or have entered into long-term business arrangements with foreign buyers that also deal with the supply of fabric to the local manufacturer. Manufacturers of consumer appliances cite the high price of South African steel and plastic inputs, and tariffs on key component parts, as their main competitive disadvantage relative to China.

Access to good infrastructure (ports, rail, road, telecommunications) is also found to be an important determinant of manufacturing exports in South Africa (Edwards and Alves, 2005). Infrastructure capital stock, particularly rail and ports, failed to keep pace with the growth in manufacturing trade during the 1990s. This constrained the growth of exports as well as the diversification of South African exports into manufacturing and non-commodity based products. The implication, as is shown later, was that export growth failed to generate sufficient jobs to have a substantial impact on unemployment.

Finally, continued protection through tariffs reduces the profitability of exports relative to domestic sales. Although tariff liberalisation has reduced the anti-export bias of protection, much of the gains were offset by the removal of export subsidies provided under the General Export Incentive Scheme. Further liberalisation on important intermediate inputs and on final products, will enhance export production.

4 Trade Liberalisation and Enterprises

4.1 Output and productivity growth

Whereas the impact of 'globalisation' and tariff liberalisation on export growth appears weak, the increased openness of the South African economy has had a dramatic impact on productivity and output across all sectors. This is potentially the most important avenue through which trade can alleviate poverty (McCulloch et al. 2001). The Trade and Poverty Research Project reviews the extensive South Africa Literature in this area (See Box 3 below) and provides indirect estimates of the impact of liberalisation and trade on labour productivity. Dunne and Edwards (2006) find that import penetration improved labour productivity in many of their estimates[10].

[9] The incentives in respect of components apply only to those sold directly to OEM (Original Equipment Manufacturers) producers. Domestic component manufacturers that export into the after-market are excluded from the programme.
[10] These results are sensitive to estimation technique and selection of industries.

Box 3: Trade liberalisation and Total Factor Productivity

Output growth can be achieved through increasing inputs in the production process (e.g. machinery and equipment, labour) or by improving the efficiency through which existing production inputs are utilised. Growth in total-factor productivity (TFP) represents output growth not accounted for by the growth in inputs.

Thurlow (2006) reviews a number of South African studies which show a strong relationship between liberalization and productivity growth. Jonsson and Subramanian (2001) find a strong and robust relationship during the 1990s in which a one percentage point decline in tariff rates raised the TFP growth rate by 0.74 percentage points. They find that trade flows, as measured by exports plus imports as share of GDP, are also positively correlated with TFP growth, and their results suggest that 90% of TFP growth from 1970-97 is explained by increased trade. Similar positive correlations between trade flows and TFP growth are found by Belli *et al*. (1993), Fallon and Pereira de Silva (1994) and Fedderke (2005). Fedderke (2005), for example, finds that output growth would improve by 0.5% per annum through the TFP channel due to a 5% improvement in the net export ratio. Finally, Harding and Rattso (2005) find consistent evidence with the above studies and estimate that 70% of productivity improvements in the post sanction is explained by liberalisation. The evidence that trade liberalization contributed positively to the accelerated growth of the 1990s is therefore substantial.

Some additional insights into the impact of openness on productivity is provided in the case studies. Manufacturers of consumer appliances have learnt to manage and import brands and have used imports to force productivity improvements in their South African production lines; clothing manufacturers have moved into design and retailing; and farmers have rationalised production – investing more in good land and leaving marginal soils fallow. The net result of these changes is generally good for the enterprises concerned. Revenue growth at South Africa's two 'manufacturers' of small households appliances has averaged 22% and 39% respectively over the last eight years. The labour productivity ratio in the clothing industry doubled between 1997 and 2004; and the operating profit of South Africa largest clothing retailer, Edcon, has risen from 4% to 14% between 2001 and 2005 (Edcon 2006). Wheat yields have risen from 50% of the world average in the 1960s to around 85% today[11].

The impact of globalisation on the South African auto industry is more difficult to interpret. The original goal of the MIDP was to help the motor industry adjust to trade liberalization and become internationally competitive. This was intended as a five year process. It now seems likely that high tariffs and generous incentives will continue until 2012 – a 17 year adjustment period. This generous support has attracted substantial new investment and contributed to strong export growth, but the main beneficiaries have been the shareholders of a handful of foreign owned vehicle manufacturers. And "representatives of these firms have declared that their manufacturing activities and related employment are not sustainable without permanent support at current levels" (Flatters and Netshitomboni 2006, pg. 17). This suggests that there has been very little adjustment in this industry and that the MIDP has instead insulated South African-based manufacturers from global competition.

4.2 The structure and composition of employment

The flip-side of productivity improvements and changes in the composition of trade is that the South African economy has experienced substantial restructuring of employment, with levels declining in many sectors. Edwards and Dunne (2006) demonstrate that the demand for labour in manufacturing has fallen over the last three decades and turned negative between 1990 and 2002 (see Figure 1). The sources of the change in demand, however, are only partly related to liberalisation. It would appear that firms have found ways to cut costs and raise production by investing in capital and skills and shedding unnecessary jobs. This is revealed in

Figure by the large negative effect of technology on the demand for labour, particularly during the 1990s (though some of this may be due to increased openness).

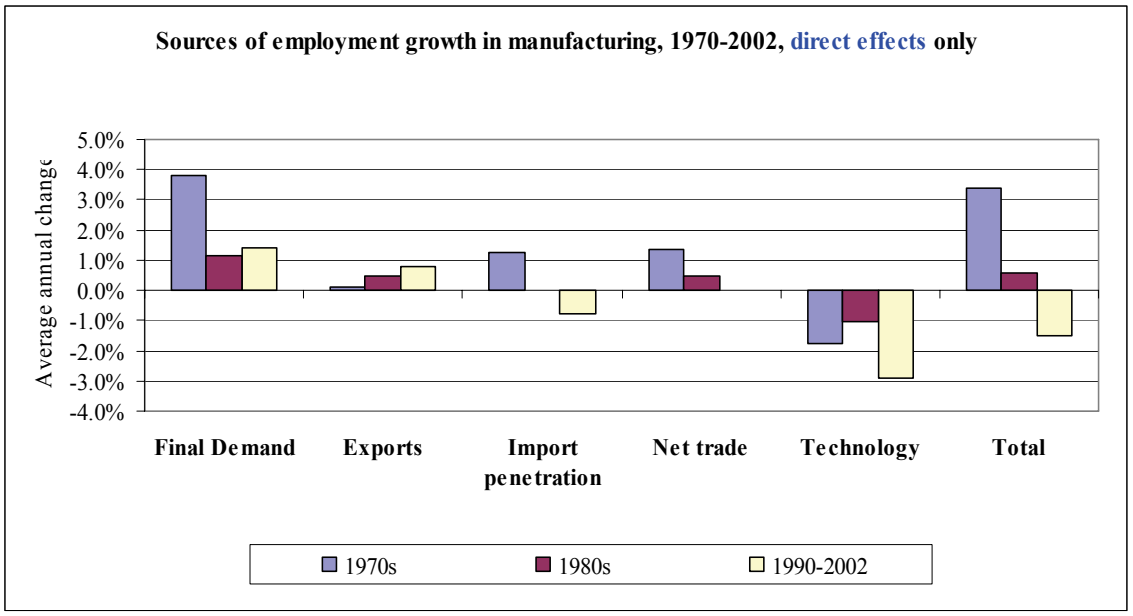
[11] Although the total area under production has halved since 1980, the amount of wheat produced has remained relatively stable (Hobson, 2006).

The net effect of trade flows on employment demand in the 1990s is close to zero with employment created through export growth closely matched by employment lost through import penetration. Most disappointing is the low number of new jobs generated by exports. Looking within manufacturing, Dunne and Edwards (2006) find substantial variation in the impact of trade on employment across manufacturing sectors. Net trade raised employment within resource based industries (iron & steel, food & beverages, etc.) and chemical industries (basic chemicals, plastics & rubber, etc.); and reduced employment in labour intensive sectors (clothing, textiles, footwear, etc.) and metal products sectors (machinery, vehicles, metal products). This restructuring has led to significant churning within the labour force.

Trade liberalisation and productivity improvements have also led to important variations in the geographic, gender, occupational and racial composition of employment (Thurlow 2006). Less-skilled workers are the most affected[12]. Tariffs fell relatively sharply in labour intensive sectors, reducing demand for labour, particularly less-skilled labour, relative to capital. The structure of trade has also shifted against sectors that use high shares of labour, particularly less-skilled labour, in production. Finally, the losses in employment and income from tariff liberalisation are concentrated in the coastal regions and amongst Coloureds, Asians and women.[13]

Further evidence of employment restructuring arises in all of the case studies. In the wheat industry, there has been substantial labour shedding as large commercial farmers looked to reduce costs and increase economies of scale; and smaller and less commercial farms failed. Employment in the automotive sector declined by 17% between 1995 and 2000; and the substantial new investment in this sector (more than R12 billion) over the last five years has generated very few jobs. Total employment in the small household appliance sector is small and labour costs account for just 3-5% of production; but the number of low-skilled manufacturing jobs has fallen sharply over the last few years.

Figure 1. Sources of employment growth in manufacturing



Source: Edwards and Dunne (2006)

There has also been increased casualisation of labour across most sectors. This is most evident in the clothing sector. Formal sector jobs fell by 37 000 between 1995 and 2001, and then again by 38 000 between 2002 and 2005. This is unsurprising. In 2002 (at a time of extreme rand weakness), formal sector wages in the South African clothing sector were double that of the average rate in China and more than three times that of India (van der Westhuizen, 2005). However, at the same time, there has been increased outsourcing of apparel assembly to small, household-based clothing

[12] Edwards and Dunne (2006) also show that the demand for labour has fallen fastest among less-skilled workers.
[13] These results largely reflect the negative effect of trade on the clothing and textile industry which is predominantly located in the coastal regions and employ relatively high shares of Coloured and Asian workers.

manufacturers and retrenched workers. These informal clothing networks are usually referred to as Cut, Make and Trims (CMTs) (see Box 4).

Box 4: Cut, Make and Trims

The role and conditions faced by CMTs are controversial. Salaries and working conditions in many of these facilities are significantly worse than those experienced in the formal sector; and many function on a survivalist basis. On the other hand, CMT's provide local manufacturers with the flexibility and skills that they can no longer employ in-house, at a competitive cost, and thereby enable the South African industry to respond to the seasonal requests of local retailers. "In both the Western Cape and KwaZulu Natal, manufacturers have reorganised themselves to fulfil the function of intermediary between the CMTs and the retailer. In some cases, manufacturers retain limited manufacturing capacity while parcelling out work to CMTs when their own capacity is exceeded" (van der Westhuizen, 2005: 16).

It is unlikely that many South African CMTs would survive if the industry was to become better regulated and workers better paid. Yet, van der Westhuizen reports that legal action is to be taken against some 877 CMTs employing 24 000 workers for failing to comply with minimum wages set for commercial manufacturers under industry-wide bargaining council agreements. Most of these workers are likely to be woman and more than half the sole breadwinners in their homes. Prospects for reemployment in any other sector are very low. Any response, from Government, to the apparent 'crisis' in the clothing industry must focus more on plight of current and retrenched workers and less so on protecting the interests of commercial manufacturers.

These results suggest that while trade liberalisation has improved productivity and economic growth, it has led to substantial restructuring in the composition of employment and industrial production. While the overall impact of trade on employment is neutral, the ongoing fall in the demand for low skilled workers has led to significant job-shedding, with few new jobs created within manufacturing. These changes pose significant challenges for households, industry and government policy.

4.3 Downstream producers and services

Rationalisation and productivity improvements within each sector have clearly contributed to substantial job losses in manufacturing. But the resulting improvements in price and quality have had a significant and positive impact on consumption and employment in downstream services industries. This is most clearly evident in the general equilibrium results of Thurlow (2006). Although liberalisation reduced employment in manufacturing, strong gains in employment within the private services sector more than offset these losses[14]. Large positive indirect effects of trade on employment via upstream linkages are also found by Dunne and Edwards (2006).

In many of the case studies, we find that firms have responded to import competition by restructuring away from production towards retail. In the consumer appliance sector, for example, one company has reduced its manufacturing employment from 150 to 60 over the last few years. But it employs 300 people in after-sales and servicing. Employment in the services divisions of this company has increased in line with rising sales and imports and is only likely to grow with further liberalisation. South African clothing retailers have benefited hugely from rising imports and lower prices in this sector. This is reflected in higher sales and employment. Edcon, South Africa's largest clothing retailer, increased its total number of stores from 450 to 730 between 2001 and 2005, with total employment rising from 11 000 to 19 000 over this period[15] (Edcon 2006).

In the auto industry, the motor trade[16] accounts for twice as many jobs as in vehicle and components production together. It is also more labour intensive. Employment in the motor trade has risen strongly with sales, with 20 000 new job created over the last five years. Flatters and Netshitomboni (2006, pg. 14) take this further: "Further liberalization of the vehicle market through tariff reductions and elimination of restrictions on used car imports would lead to continued growth in associated downstream motor trade and transportation service industries. Resulting employment growth in these

[14] A large proportion of these gains in employment in services arise from the trade-induced gains in productivity. Nevertheless, the indirect effects from liberalisation moderate the negative direct effects within manufacturing.
[15] These figure reflect all Edcon's retail outlet, which are dominated by but not restricted to clothing.
[16] Sales, maintenance and fuel retail

sectors would offset considerably and might well outstrip any reductions in employment in vehicle and component assembly".

It is not just the retail and after-sales industry that stands to gain from lower prices and higher sales. In the apparel sector, downstream users of textiles are greatly disadvantaged by the high cost of imported fabrics. Tariffs exceed 20% on most imported material. Similarly, the high price of domestically-produced plastic and steel inputs makes it difficult for South African manufacturers of consumer appliances to compete at home and abroad. According to one such producer: if South African firms could access material inputs at the same price as Chinese manufacturers, they would be extremely competitive.

The wheat industry case study provides another good example of how market and trade liberalisation has boosted downstream employment. Prior to the deregulation of wheat trade in South Africa, 3 000 bakers were registered with the Wheat Board and 80% of bread production was accounted for by 6 large baking groups. Following the abolition of the Wheat Board in 1997, the number of formal baking units has rose to 7 900, with as many as 53 200 informal bakers operating in non-licensed premises. Although detailed employment figures are not available, "it is highly likely that the expansion in the baking industry has absorbed significant amounts of semi-skilled labour" (Hobson, pg. 17).

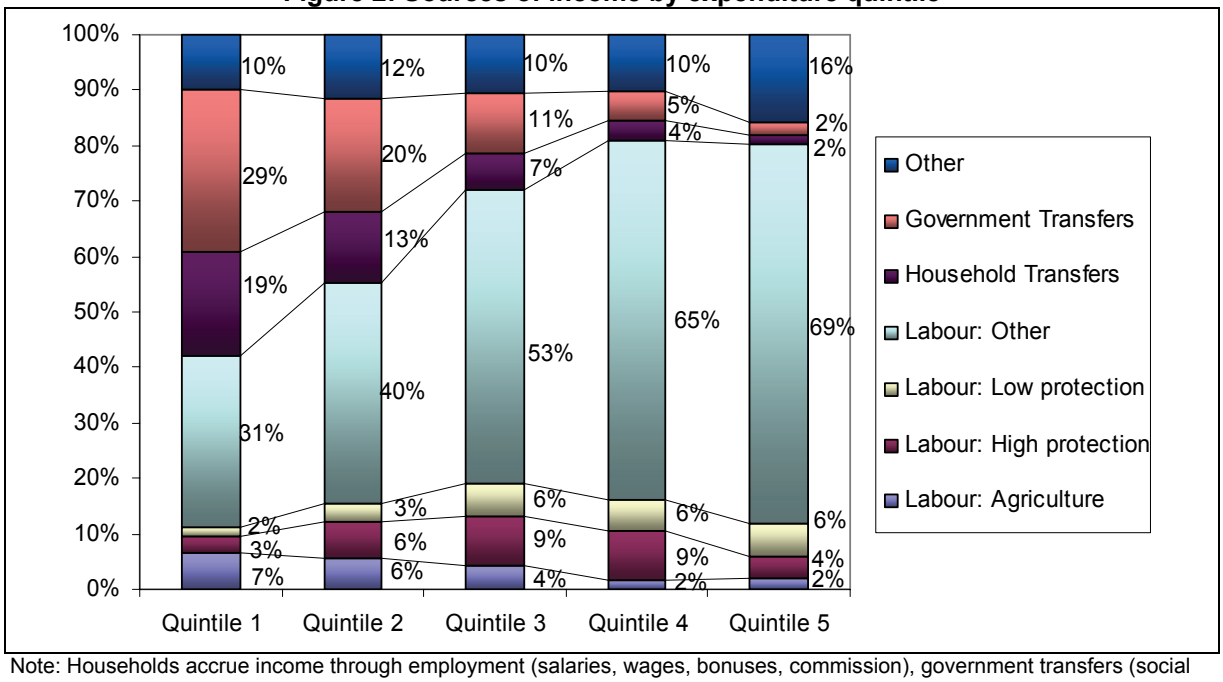
4.4 Employment and poverty

We have seen that trade liberalisation has induced structural changes in the composition of output and employment. The extent to which these changes have affected poverty is closely dependent on the strength of the linkages between poor households and the labour market. As shown earlier in Section 0, poor households are generally characterised by poor linkages, in terms of location, occupational characteristics and participation, to the labour market. This becomes even more evident when we focus on the linkage between poor households and traded sectors.

Figure 2, drawn from Pauw et al (2006), presents the sources of household income across per capita expenditure household quintile. This analysis confirms that poor households lack access to formal sector employment and are on average dependent primarily on government and household transfers and other private allowances. While labour income collectively contribute 42% and 55% of household income in the first and second decile, respectively, these shares are accounted for by relatively few households who have working members. 53% of ultra-poor poor households and 48% of poor households have no direct access to wage income. For those households that do rely on wage income, it certainly is an important income source, accounting for above 70% of the average poor working household's income.

Looking more closely at traded sectors, we find that direct access to income from protected sectors, including agriculture, contributes less than 15% of total household income. Agriculture, mining and manufacturing make up approximately 28% of employment in poor households, but account for only 9.3% of total employment. Most of this employment is found in the agricultural sector, highlighting the importance of this sector as a source of income for poor households. Subsistence farming is also an important source of employment, accounting for between 10% and 20% of employment in the first two income deciles.

Figure 2: Sources of income by expenditure quintile



Note: Households accrue income through employment (salaries, wages, bonuses, commission), government transfers (social welfare payments), household transfers and other sources (profits from business interests, returns from various types of investments, pensions and annuities, and other private allowances. In the Figure above, protected manufacturing sectors are divided into "low protection" and "high protection" where a 9 percent tariff rate is used as the cut-off rate. Labour income from other sectors includes services and manufacturing sectors with no protection.

With the exception of agricultural employment, employment and labour income in the traded sectors does not appear to overlap geographically with the employed poor. The agricultural industry is an important employer of rural and low-skilled workers; low-skilled workers make up about two-thirds of employment in this sector. In comparison, other manufacturing sectors mostly source employment from urban areas, the bulk of which are made up of semi-skilled or skilled workers. This confirms that the links between workers in poor households and employment in the traded manufacturing sector is weak. Furthermore, both the locations and skill requirements of the traded sectors are central to this mismatch.

The weak linkages between poor households and manufacturing trade would suggest that the poor are less vulnerable to employment losses resulting from trade liberalisation. However, they would also make it less likely that the poor would benefit from any increase in the demand for labour arising from increases in production for export. While trade-related employment and income shocks have important poverty implications for those who are affected, the poor are relatively isolated from these effects. International trade is thus not sufficient to cause or alleviate poverty in South Africa.

5 Trade Liberalisation and Households

5.1 Prices

Improved productivity at home and abroad and increased openness should contribute to lower real prices of tradable goods in South Africa; or at least, some improvement in quality and variety. The realisation of these outcomes, however, is dependent on the transmission of border prices to the household. As discussed in McCulloch et al. (2001) this transmission is influenced by domestic taxes, distribution costs and market institutions at the national, regional and local level. The price transmission mechanism may be weak where poor infrastructure and institutions with market power at the local or regional level inhibit the pass-through of lower border prices to households. The price transmission is expected to be particularly weak in rural areas.

This study does not assess the impact of tariff liberalisation on border and household prices in a systematic way; this important area is left for future research. Complicating an assessment of the impact of liberalisation on prices in recent years is the highly volatile rand. Further, international prices have changed. This makes it extremely difficult to unpack the impact of trade and competition on

local prices in any of the sectors analysed, although empirical estimates at the industry level by Fedderke et al. (2005) and Edwards and van de Winkel (2005) suggest that import penetration and liberalisation are effective in disciplining pricing behaviour of South African firms.

Price-setting in the wheat (bread) and automotive industries has come under considerable scrutiny in recent years. In both cases, concerns have been raised that producers have not passed-on the price benefits of lower tariffs and a stronger domestic currency to consumers. These industries are net importers and wheat and vehicles are sold in South Africa at the import-parity price. In the case of wheat, tariffs are low and the price transmission mechanism from the farm to the retailer is critical. In the case of the auto industry the tariff is much higher and it has a strong bearing on the retail price of vehicles.

A number of official and academic studies have been undertaken to evaluate the efficiency of the price transmission mechanism in the wheat sector. The results, as presented in the case study, are inconclusive. Since deregulation, the wheat price in South Africa closely tracks the world price. It is therefore strongly influenced by changes in the exchange rate. But most of the margin on wheat is earned by millers, bakers and retailers, and "it is generally recognized that changes in farm and wholesale prices are not evenly transmitted to consumer prices" (Hobson, 2006). It is common for retailers to pass on price increases quickly, but price reductions are much slower to adjust.

The debate over pricing on the auto industry is even more contentious and has been the subject of numerous reviews, reports, newspaper articles and an official enquiry by the Competition Commission. Almost all commentators, including the Commission, agree that the prices of new and used cars in South Africa are relatively expensive relative to more competitive markets. This is confirmed by the case study. Flatters and Netshitomboni show how high tariffs under the Government's Motor Industry Development Programme (MIDP) benefit local producers but raise the cost of all imported and domestically produced vehicles sold in South Africa. The cost is borne by consumers.

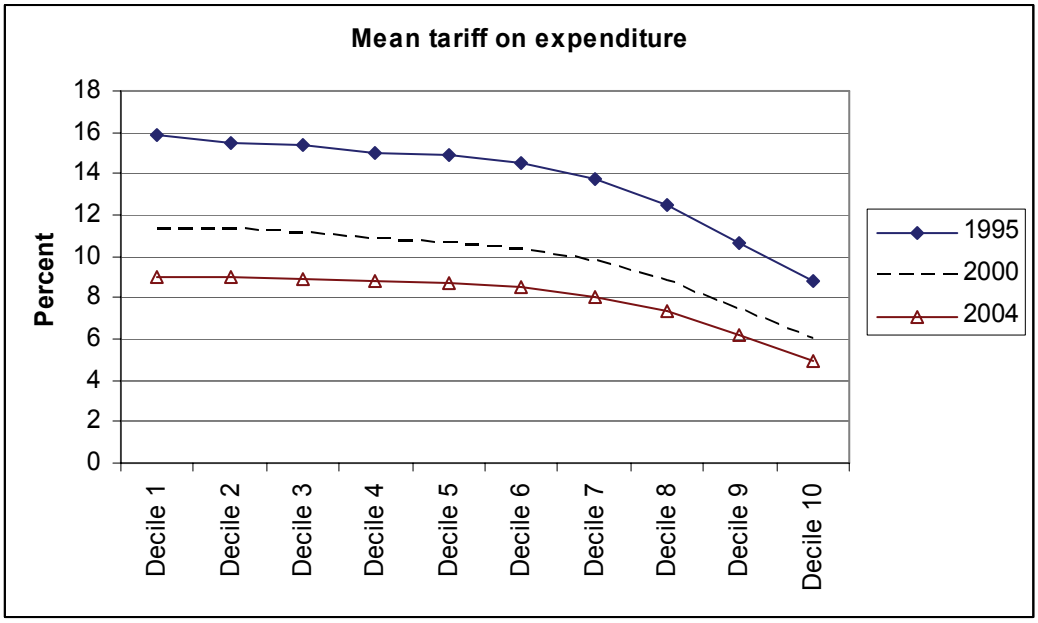
5.2 Consumption

As noted, this project does not deal with the price transmission mechanism in a systematic manner. However, Daniels and Edwards (2006) analyse the consumption patterns of households across per capita expenditure deciles and then, under the assumption of perfect pass-through, estimate who bears the greatest tariff burden as well as who has gained the most from tariff liberalisation during the last decade. Their results are shown in Figure 3.

Poorer households spend a relatively large proportion of their income on tradable products, including food, beverages, clothing and textiles. As a consequence, poorer households pay a disproportionate share of the tariff burden relative to their share of expenditure. For example, whereas the poorest 10% of households spent 16% of total expenditure on tariffs in 1995, the richest 10% spent just 9%. Tariffs, in general, are therefore a regressive tax. Thus, liberalisation between 1995 and 2004 is expected to have reduced the cost of living of poor households relatively more than wealthy households. This is borne out by the analysis.

The average expenditure on tariffs by households in the first decile fell from 16% to 9% between 1995 and 2004. The corresponding decline for the wealthiest decile, who consume a high proportion of services, was from 9% to approximately 5%. While these results suggest that tariff liberalisation is pro-poor in terms of consumption, it cannot show whether lower border prices are transmitted to the poor. Further, services liberalisation, which is not accounted for in the study, is expected to yield greater benefits to relatively wealthy households.

Figure 3: Mean expenditure on tariffs as a % of total spending



Source: Daniels and Edwards (2006)

Certain products are more likely to be consumed by the poor and these should be prioritised in any trade reform initiative. The poorest 10% of households spend 58% of total expenditure on food, of which about half is spent on grains. By comparison, they spend just 5% of total expenditure on clothing and footwear. Anything that distorts the price of basic foods upwards deserves attention (this could include tariffs, poor transport infrastructure, excessive retail margins etc.).

Consumer appliances account for a very small percentage of total expenditure, and this is especially true of poorer households. Middle-income households will gain most from lower tariffs in this sector and three-quarters of the gains from any trade-induced price decrease will go to households earning more than R93 000 a year.

Poor households do not spend much on cars. But they do spend a lot on transport. Flatters and Netshitomboni show that half of all households with a monthly income of less than R500, spend more than a fifth of their income on transport. Moreover, the bulk of this expenditure goes to minibus taxis and hired transport. The direct contribution of tariffs to the cost of vehicles and commuter transport has not been calculated in this study, but there can be little doubt that high tariff duties and the ban on used cars raises the cost of transporting the poor.

6 Trade Liberalisation and Government

6.1 South Africa

In most developing countries trade taxes form a significant part of government revenue and the impact of tariff liberalisation on the fiscus in general, and social expenditure in particular, is an important consideration. This is not the case in South Africa. Tariff revenues currently account for around 4% of total government revenues and less than 1% of GDP. A large or absolute reduction in collections could be easily absorbed. For this reason, the project does not consider the loss of customs duties arising from tariff cuts.

The only exception to this general observation is the automotive sector and the MIDP. More than R90 billion in IRCCs have been granted and used between 1996 and 2005. These certificates are used to offset duties that would otherwise have accrued to the state. The actual loss to the fiscus is a proportion of the IRCC value, and in 2004 and 2005 alone, it amounted to R11 billion. In addition, about R475 million in duty credits were awarded under the PAA programme in 2004 and 2005. This leads Flatters and Netshitomboni to estimate the combined revenues foregone through the export IRCCs and PAA credits at about R6 billion per year. “Scaling down the government’s support of the

motor industry would release considerable resources for other uses, some of which could be used to much greater benefit in attacking poverty and at the same time achieving the longer term (and completely consistent) goal of promoting sustainable economic growth" (Flatters and Netshitomboni, 2006: 16).

6.2 SACU

Customs revenues are of little importance to South Africa, but they are of considerable value to the smaller member countries of the Southern African Customs Union (SACU). All customs and excise duties collected within SACU are shared according to a complex revenue sharing formula (see box 5 below). Lesotho and Swaziland's share of SACU customs duties account for about 40% of total government revenues; in Namibia and Botswana customs receipts contribute about 30% and 15% of total government revenue, respectively. Government revenue and expenditure in these countries is therefore particularly sensitive to the total amount of customs duties collected. "This raises serious issues and some perverse incentives regarding the fiscal impact of trade policy decisions" (Flatters and Stern, 2005: 9).

Box 5: The new SACU Revenue Sharing Formula

The new SACU agreement has made substantial changes to the revenue sharing arrangement.
The revenue share accruing to each member is now calculated from three basic components: a share of the customs pool; a share of the excise pool; and a share of a development component. These shares are calculated as follows.

- Customs revenue are distributed on the basis of intra-SACU imports.
- A development fund has been created from 15 percent of total excise collections, and is distributed equally among Member States with an adjustment of a small proportion of this total according to the inverse of each country's GDP/capita. As a first approximation, however, each Member State gets 20 percent of the development fund, which means that on a per capita basis, the BLNS get far more than much more populous South Africa.
- The remaining excise revenue is distributed proportionately to members' GDPs.

The net effect of this new arrangement is that South Africa retains about 50 percent of total customs and excise revenues collected, with the BLNS sharing the remaining 50 percent amongst themselves. But whereas South Africa receives about 80 percent of its SACU revenue through the excise component, the BLNS receive about 80 percent of their revenue from the customs component. This leaves them extremely vulnerable to fluctuations in the level of customs collections and their shares of intra-SACU trade.

(Flatters and Stern, 2005: 4)

Consider for example a (hypothetical) R2 billion rand reduction in customs duties (Table 7). The loss in revenue is borne almost entirely (88 percent of it) by the smaller SACU member countries. The fiscal cost of future trade liberalization, to the BLNS, is disproportionately large. The new SACU agreement also creates a number of new rules and institutions for making tariff decisions for all of SACU (previously this authority vested in the South African Board on Tariffs and Trade). Importantly, once these processes and institutions are established, all tariff decisions will be made on the basis of consensus. The smaller member countries would then have a significant interest and the authority to frustrate any future tariff reforms in the region.

Table 7: Revenue Losses from a R2 Billion reduction in Customs Duties

	SACU revenues (R mn)		%	
	(1) Before reduction	(2) After reduction	Change	Share of revenue loss
Botswana	4008	3423	-15%	29%
Lesotho	1984	1709	-14%	14%
Namibia	3228	2753	-15%	24%
Swaziland	2795	2371	-15%	21%
South Africa	13027	12787	-2%	12%
Total	25042	23042	-8%	100%

Source: Flatters and Stern (2005).

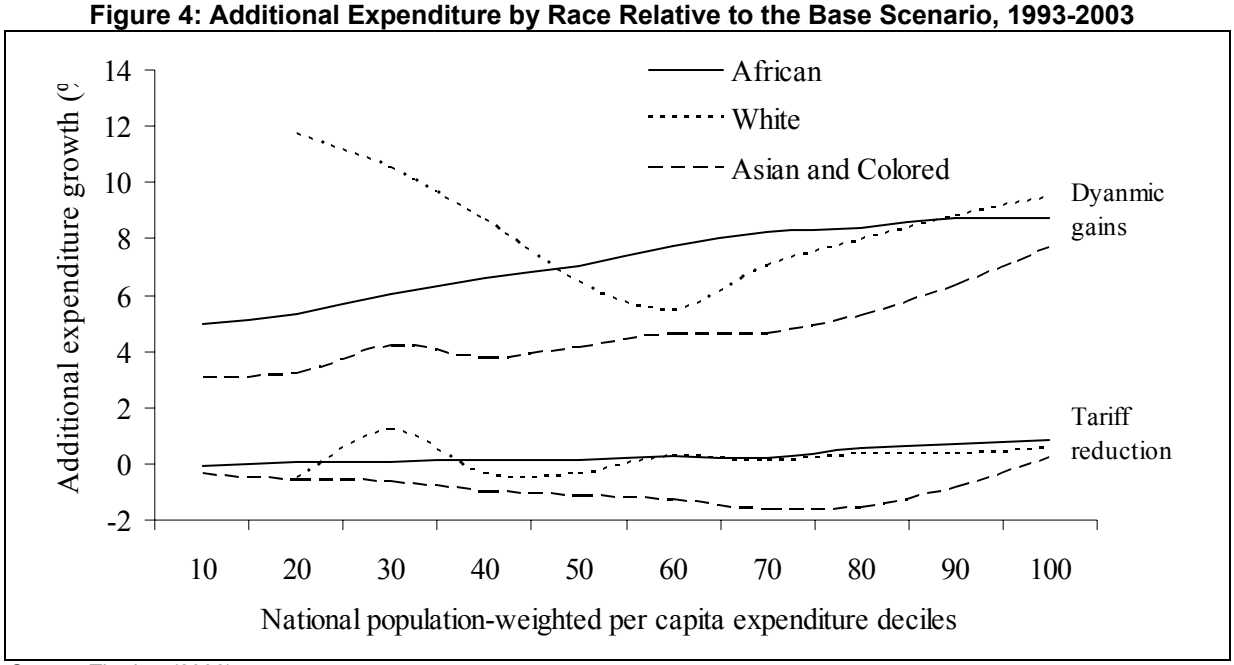
7 The Net Effects of Trade Liberalisation on Poverty

The above analysis provides a partial analysis of how trade affects the poor via changes in income and changes in expenditure. This analysis identifies a number of tensions on the impact of trade on the poor. Liberalisation and the changing structure of trade appear to have disproportionately increased incomes and employment amongst the relatively wealthy and relatively skilled. In contrast, lower tariffs are expected to have benefited the poor who spend a relatively high proportion of their income on traded products. This partial analysis has not taken into account the productivity improvements arising from trade liberalisation on households. As argued by McCulloch et al. (2001) trade-induced growth may be the dominant source of gain arising from liberalisation. Finally, the focus has primarily been on the manufacturing sector. Employment and income gains arising from a restructuring of production towards retail and other services are not captured.

Some of these economy-wide and dynamic effects are captured by Thurlow (2006). He uses a dynamic general equilibrium and microsimulation model to assess the effects of trade liberalization on growth, employment and poverty in South Africa during the 1990s. His results suggest that trade policies have not contributed to increased poverty and that trade-induced technological change has accelerated growth. Trade liberalisation raised expenditure for all individuals on average, but primarily through the dynamic gains: gains from tariff liberalisation alone appear to be small. However, liberalization has changed the structure of production. Employment in manufacturing declined, but was more than offset by increases in the private services sector. Trade reforms also contributed to the rising capital and skill-intensity of production.

FigureFigure 4 presents the net impact of liberalisation by Race and by per-capita expenditure decile. It shows the increase in expenditure arising from tariff liberalisation alone (Tariff reduction) and from tariff liberalisation with trade-induced productivity gains (Dynamic gains). While all population groups have benefited from trade-induced growth, higher-income and African and White households have benefited more than lower-income and Asian and Coloured households. This has contributed to increasing income inequality. Furthermore, households in the coastal provinces have borne most of the structural adjustment costs[17].Thus, while liberalisation is an important source of gain to households and the economy, it is not sufficient to reduce inequality nor significantly lower poverty.

Figure 4: Additional Expenditure by Race Relative to the Base Scenario, 1993-2003



Source: Thurlow (2006)
Note: *Race* refers to the population group of the head of the household.

[17] Rising inequality is in part explained by the decline in clothing and textiles which employ relatively high shares of Coloured and Indian workers in the coastal regions

8 Policy Conclusions

Overall, a number of broad conclusions can be drawn from the current round of studies under the Trade and Poverty Research Project. Increased openness has contributed to significant output and productivity gains at the enterprise level; and has reduced the cost of living for all households. Most importantly, the study finds that trade liberalisation is an important source of welfare gain and growth to the economy as a whole.

The study confirms that the effect of trade liberalisation is not uniform across households and industrial sectors. There are both winners and losers in the process. Trade liberalization has created new opportunities for exports and growth in services, but has also led to the decline in output and employment in many inefficient and import competing sectors.

This makes it difficult to measure the net impact of liberalisation on the poor. Whereas poor consumers have gained most from lower tariffs, they have not gained (or lost) much in terms of employment. This is partly because poor households are largely disconnected from the formal wage economy and labour income in the traded sectors does not overlap geographically with the employed poor; partly because economic and export growth has been insufficient to draw new entrants into the labour market; and partly because trade liberalisation in South Africa is far from complete and tariff peaks and sector specific programmes continue to impede competitiveness.

The analysis and case studies show that further trade and industrial reform is feasible and would contribute to improved productivity and economic growth; it acknowledges that this is not sufficient to reduce unemployment and poverty especially amongst the unskilled and rural poor. The study also encounters a number of puzzles relating to what has or has not happened in South Africa and why. The policy recommendations emanating from this work therefore need to extend beyond simple tariff liberalisation to consider other constraints to export and economic growth; and to focus explicitly on the impact of reform on the chronically poor.

Once again we turn to McCulloch et al. (2001: 154) who provide a useful framework for addressing these different aspects of a pro-poor trade policy. This consists of:

(a) An overall strategy for trade reform and how such reform is likely to affect the poor
(b) Areas of complementary policy on which government is going to focus to ensure that the poor benefit from the reforms
(c) Key social protection policies and safety nets that the government will use to mitigate the costs associated with the reform.

Each of these aspects is dealt with separately below.

8.1 An overall strategy for trade reform

On aggregate, it appears that South Africa has undergone considerable tariff liberalisation over the last decade. This has been of benefit to consumers and especially the poor who consume traded products. There has also been some simplification of the common external tariff. But South Africa's tariff schedule remains complex and has been further complicated by sector specific policies and a series of bilateral and regional trade agreements, each of which come with different preference schedules and different rules of origin. This makes it increasingly difficult to analyse, understand and administer trade policy in South Africa. And it creates needless and costly noise and compliance burdens for private sector investors and producers.

(i) The case for simplification

The complexity of the tariff system implies that the primary objective of tariffs as signal for resource allocation is lost. The lack of a simple and transparent tariff structure reflects the lack of a clear industrial policy. It encourages lobbying and tinkering and distorts investment decisions at the product level. One of the side effects of this very complex tariff schedule is that a large number of tariff peaks and nuisance tariffs persist. There is no need for such complexity in the tariff schedule for either revenue reasons or protection. At the very least, South Africa should replace all

remaining specific, formula and mixed tariffs with ad valorem duties and greatly reduce the number of ad valorem tariff bands.

(ii) The case for liberalisation

The analyses and case studies provide empirical evidence in favour of liberalisation: tariffs harm consumers and impede the development of downstream manufacturing and service industries. Furthermore, the benefits of high tariffs and other forms of industrial assistance accrue mostly to the foreign and local shareholders of South African-based producers; or are wasted on uncompetitive manufacturing activities.

The purpose of this report is not to provide a specific tariff reform proposal; but a number of general guidelines emerge from the analyses and case studies which might inform such a process:

- Trade policy is contested. The implementation of future reform needs to be planned such that the reforms have the greatest political chance of success. Research and debate must form an important part of this process and can lead to a much stronger sense of ownership of policy once the debate has been resolved.
- Further reform requires clear signals on the pace and extent of future reforms. Such information enables firms to plan investment decisions and restructure production in the expectation of greater international competition and in doing so minimizes the adjustment shocks.
- Meaningful reform through trade agreements enhances the credibility of reform and sends a clear signal to producers and consumers of expected changes. While South Africa achieved much success in this regard during the Uruguay round, bound rates exceed applied tariff rates and provide enormous scope for opaque adjustments. Moreover, the direction of future reform, particularly on the multi-lateral front, is now unclear.
- South Africa should reconsider its approach to bilateral trade negotiations. Shallow agreements with restrictive rules of origin are unlikely to deliver economic benefits to South Africa. They do however add substantial complexity to the external tariff and absorb scarce policy and administrative resources. Deeper agreements (those that cover substantially all trade in goods and services) with large, developed countries might have economic value and could help to facilitate domestic reforms.
- The new SACU Tariff Board, once operational, is going to raise new challenges for the design and implementation of trade policy in South Africa. South Africa therefore has a short window of opportunity to initiate a trade reform programme which incorporates significant simplification of the common external tariff and appropriate liberalisation. This programme would not only help to minimise conflict in the new SACU; but it would form the foundation of a more open, competitive and transparent regional block.

8.2 Areas of complementary policy

One of the main advantages of the framework used in this study is that it looks beyond the border to consider the mechanisms through which trade and trade reform impact on the poor. The results suggest that tariffs alone will have little direct impact on poverty and economic growth unless they are accompanied by a range of supporting reforms that enable prices, firms and labour to adjust easily within a more dynamic and competitive global environment. Some supporting reforms are outlined below.

(i) Policies to raise export growth

South Africa's export performance has been mediocre compared to similar middle-income economies. This is one of the main reasons why the economy has failed to generate sufficient export-led employment growth. The poor export performance is related to many factors, including: low infrastructure investment; a lack of skilled labour; and the high cost of intermediate inputs. Government support and subsidies to capital intensive manufacturing industries has further undermined the structure and competitiveness of South Africa's export sector. All of these factors need to be considered as part of a comprehensive export growth strategy.

(ii) Policies to improve international price competitiveness

The real appreciation of exchange rate since 2002 has undoubtedly constrained export growth. There is strong empirical evidence in South Africa (Aron et al. 1997) that tariff liberalisation and the elimination of trade restrictions are consistent with a more depreciated real exchange rate.

Therefore the negative impact of tariff liberalisation on import competing firms will be partly offset be a real depreciation of the currency. Further, exports will be boosted by an increase in real returns directly via currency depreciation, and the lower costs of protected intermediate inputs. Trade liberalisation could be combined with policies which will make depreciation more likely. This includes the discontinuation of subsidies and support to resource intensive exports, such as the plastics and motor industry, and the removal of exchange controls (though this might also lead to increased currency volatility and the poor are less able to adapt to economic shocks).

(iii) Policies to ensure that lower international prices are passed on to poor consumers.

An important source of gain to households is the lower cost of living arising from trade liberalisation. As we have shown in this project, the poor spend a disproportionate share of their income on protected products, and should therefore gain relative to wealthy households. However, the realisation of these gains depends on the pass-through of border prices to households. Weak infrastructure, market power within domestic institutions (Fedderke et al. 2005), and the location of poor consumers in rural areas, imply that the gains in terms of lower prices may not be realised by poor households. While liberalisation is shown to be an important source of pricing discipline for domestic firms (Fedderke et al. 2005; Edwards and van de Winkel, 2005), an effective competition policy is often required to facilitate competitive pricing. With liberalisation, internal regulation surpasses external regulation: domestic regulation may be required to ensure gains are passed on to consumers and producers.

(iv) Policies to ensure that lower international prices are passed on to downstream users.

A particularly interesting case in the South African context, is the import parity pricing behaviour of large competitive exporters within the chemicals and plastics sector. Such pricing power is given by the regional isolation of the South African economy, the lack of domestic competition in similar products and opaque pricing behaviour. This raises the cost of production in downstream industries and may have a negative affect on employment and prices in these industries. As argued in the plastics case study, these downstream industries tend to be more labour-intensive. Dealing with import parity pricing may require a range of policy interventions. The first step, however, is a closer evaluation of import protection provided to these sectors. Reduction of tariffs will result in a direct reduction in prices, which will benefit consumers and downstream users. However, where tariff protection is small relative to other transport costs, the overall impact on prices may be small relative to the size of the distortion.

(v) Policies to enhance access to new agricultural markets

South Africa's history of racial discrimination in land ownership implies that the effect of trade liberalisation on poor households will differ from many other middle-income and developing economies. In many of these other economies, the primary source of gain to poor households arising from liberalisation, is entry into the agricultural export market. However, land ownership patterns imply that poor households who lack access to adequate land resources, even in rural areas, do not face similar opportunities. Yet the agricultural sector remains an important source of employment and income for poor households in South Africa primarily through the labour market. Growth in agricultural production is likely to have the largest direct impact on employment and incomes of the poor. Policy makers need to identify and address the key constraints to flexibility and access to land within rural areas.

(vi) Policies to speed-up labour market adjustments

The analysis and case studies provide substantial evidence of employment restructuring. In general, the structure of trade has shifted against sectors that use high shares of labour, particularly less-skilled labour, in production, and South Africa's exports have become increasingly capital-intensive. This raises questions about the demand for and cost of unskilled labour in South Africa. Golub and Edwards (2004) show that unit labour costs in South Africa are low compared to most industrialised countries, but relatively high compared to other developing countries. It has therefore become increasingly difficult for labour intensive industries to compete abroad and against imports. If correct, then the reasons for the high cost of labour in South Africa should be identified and addressed, and more should be done to enable low-skilled workers to move out of uncompetitive sectors and into sustainable employment.

8.3 Key social protection policies

Tariff liberalization leads to significant restructuring of production resulting in potentially severe adjustment costs to firms as well as households. This is the main source of gains from reform and the evidence presented in this study shows that there has been significant restructuring across almost all industries: export orientation and import penetration has increased. These adjustments will involve short-term costs for some households. Public policy therefore needs to focus on mitigating the costs associated with the reform while ensuring that the poor are able to benefit from the reforms. These policy recommendations include:

(i) Safety-nets to assist adjustment

The poor are largely dependent on government transfers as a source of income. Between 48% and 53% of poor households in the first two per-capita expenditure deciles have no workers in the household. A high proportion of household members also do not participate in the labour force. Hence, financial support through social welfare policies will continue to be the primary source of income for these households into the future.

Equally important in the adjustment period is to provide a social safety net for those that lose their jobs, directly or indirectly, as a result of liberalization. The existing social welfare system might be sufficient to pick-up most poor employees displaced by trade reforms – though this deserves closer analysis. In addition, short-term counselling, training and financial support can do much to ease the strain of the adjustment period for those, generally poor and unskilled, workers affected (Hayter et al., 1999:70).

(ii) Training and regulation to connect the poor

The inadequate skill endowment of poor households implies that these households lack access into the labour market. Lack of skills is a constraint to employment in general and is not specific to trade related restructuring. Nevertheless, the geographic and skills mismatch between poor households and new markets created through trade liberalisation, imply that these households will not be the primary beneficiaries of new jobs and income generated through liberalisation, and possibly economic growth in general.

The broad long-run policy solution is an improvement in education, particularly in the technical fields of maths and science, which are also shown to be strongly correlated with improved economic growth (Fedderke, 2001). However short-run policies need to be considered. The study has found that while liberalisation has pressurised employment within the manufacturing sector, it has created new opportunities in the formal and informal service sector. Transport, labour market and training policies that facilitate the competitiveness and sustainability of these sectors need to be explored.

9 Future Research

This project has encountered a number of issues in which further research would be helpful in understanding the effects of trade policy and its effects on the poor.

General issues

- Trade and industrial policy reform requires adjustment and we know remarkably little about what kind of labour market adjustment has occurred in South Africa. Furthermore, adjustment assistance has gone largely to employers and firms rather than to workers. How much adjustment has there been and will there be, and what kind of adjustment policies would help the most?
- South Africa has and continues to rely on sector-specific strategies to guide trade and industrial policy reform. The two major targets have been the automotive and clothing and textile industries. Analysis of the economic costs and benefits of these interventions would provide useful inputs in current or proposed trade and industrial policy discussions

Production-income linkage

- Most discussion on industrial policy tends to focus on the direct beneficiaries of the measures being considered. But it is equally important to consider the impact of liberalisation on down-stream users, retailers and service providers, many of which are more labour intensive than the manufacturers of the protected good. More information is required on the relationship between tariff liberalisation and up-stream and down-stream employment.
- The informal sector, particularly the retail of domestic and imported goods, is an important source of income for poor households who lack access into the formal wage economy. We have little insight on how informal workers are affected by trade and industrial reforms. Further, we have limited information on how informal traders and producers in rural areas have responded to the constraints and opportunities arising from trade liberalisation.
- This project is largely confined to trade in goods. Services account for around 70% of the South African economy and discussions on trade in services form a major part of current world trade negotiations. In general, restrictions on trade in services are much higher than those in goods and liberalization has been slow. Part of the reason for low levels of trade and openness in the service sector is the lack of data and analysis. This makes it difficult for countries to identify export interests and evaluate the positive and negative impacts of reform. Research and negotiations on trade in services would benefit significantly from the application of the kind of analysis and case study work undertaken in this project.
- The project identifies substantial restructuring of production in response to international competition within certain sectors. Virtually every sector has experienced simultaneous growth in export orientation and import penetration; the case studies support this finding. More research is required into the constraints that have impeded growth in the expanding sectors.

Trade and growth

- The study has not directly analysed the relationship between trade liberalisation and economic growth, but has rather drawn upon existing empirical research. Such research has been conducted at the aggregate level and hence we have little insight into the effect of trade liberalisation on productivity improvements at the sector or firm level. This project implicitly assumes that this aggregate relationship holds across all sectors. We may therefore be losing important sector level variations on the impact of trade liberalisation on economic growth. Differences in the geographical locations of production and the occupation composition of employment across sectors imply that sector variations in the trade-growth relationship may affect in a more nuanced way than dealt with in this study. Further research on how trade liberalisation affects production and productivity at the sector level is required.

Consumption linkages

- A primary source of gains to poor households from liberalisation is lower consumer prices. However, this study does not systematically analyse the transmission of border price shocks, arising from changes in the exchange rate, foreign prices and tariff protection, to domestic producer prices or consumer prices. We therefore have little understanding of the relative and absolute importance of border price changes on domestic prices and how this varies across geographical regions (urban and rural) and sectors according to economic characteristics of the industries and the competitive nature of their markets. This is an area in which careful econometric analysis, complemented with detailed studies of price linkages within industry value chains, could prove a useful complement to case study materials.

Data issues

- Industrial policy needs to draw on detailed data of the economy and households at hand. But manufacturing and employment data in South Africa is extremely weak. This makes it extremely difficult for government and researchers to evaluate and monitor the impact of trade and industrial policy decisions on poverty. For example, while we have aggregate data on the numbers of jobs in various sectors, we cannot account for annual flows into and out of each sector, and what kinds of workers (age, skill levels, gender, etc.) are involved in each. Such data are necessary to understand labour and income mobility patterns, and to design sensible and necessary adjustment assistance in the event of normal and policy-induced labour market disruptions. We also have very little firm level data on manufacturing output (and inputs), productivity and competition by sector. Government should give serious consideration to funding surveys that collect the minimum data required for trade and industry policy analysis at a reasonable level of aggregation and frequency.

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