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How does Globalisation Affect Income Distribution in South Africa?

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LIST OF ABBREVIATIONS

WTO World Trade Organisation
IMF International Monetary Fund
FDI Foreign Direct Investment

GDP Gross Domestic Product
ILO International Labour Organisation

ABSTRACT

This paper evaluates the impact of globalisation on income distribution in South Africa. There are broadly two ways in which it can affect income distribution and help to address poverty. On a macro level it can stimulate economic growth, create jobs and provide salary income to people previously not employed. In a more direct way it can impact on wages. If unskilled wages increase relative to skilled wages, it should lead to a more equal distribution. Evidence for the period 1993 – 2001 indicates that South Africa experienced highly volatile capital flows, in the form of portfolio flows, with disruptive effects on the exchange rate and interest rates. On a micro level, the opening up of trade led to considerable job losses, especially semi- and unskilled workers. These were brought about mainly by the increasing importance of technology. Job losses because of import penetration were not as significant as could have been expected. On the other hand, exports did help to create jobs, but not enough to offset the negative impact of the previous-mentioned two factors. No evidence could be found that salaries of unskilled workers increased relative to highly skilled workers. Globalisation can only lead to a more equal distribution of income in South Africa if it succeeds in creating jobs – and this can only happen if the skills level of our workforce meets the conditions of the market.

EXECUTIVE SUMMARY

This paper evaluates the impact of globalisation on the domestic South African economy for the period 1993 - 2001. With a Gini coefficient of 0.593 (World Bank 2000a) South Africa has one of the most unequal income distributions in the world. Against this background the following two questions will be considered: how did globalisation affect the economic growth rate, and how did it impact on income distribution?

There are broadly two ways in which it can affect income distribution and help to address poverty. On a macro level it can stimulate economic growth, create jobs and provide salary income to people previously not employed. In a more direct way it can impact on wages. If unskilled wages increase relative to skilled wages, it should lead to a more equal distribution.

As with other developing countries, capital flows to and from South Africa are highly volatile. Our emerging-market status results in financial fragility and an undesirable composition of capital flows to the country. The effect of the Asian crisis was severely felt. In addition to the influence of international crises outside Africa, we are also at the mercy of crises in neighbouring countries, as the ongoing crisis in Zimbabwe clearly shows. South Africa has experienced increased capital flows during the past decade. Unfortunately these were in the form of portfolio investment rather than much-needed direct investment. There is no indication that increased capital flows have contributed to economic growth or improved the living conditions of average South Africans.

The effect of trade liberalisation on the South African economy is evident in the increasing openness and changing composition of exports. Both exports and imports have increased as a percentage of GDP since the early 1990s. This resulted in an

openness value of 58.07% in 2001 compared to 33.98% in 1990. Many developing countries experienced significant increases in economic growth as their economies opened up. Graphical presentations of this relationship at first glance show no clear link between openness and growth. There seems to be a positive relationship between exports and imports as percentage of GDP and economic growth. The relationship weakened around the 1980s, the period of isolation, but is confirmed again since the 1990s. Another interesting relationship is that between openness and GDP per capita. The South African data displays an interesting trend. Late in the 1980s there seems to be a negative relationship. But since trade liberalisation took place (1993-94) the increasing openness was mirrored in increasing levels of GDP per capita, although the absolute level remains low.

The increasing openness resulted in changes in the manufacturing sector. This sector's share of total exports increased from 40.5% in 1993 to 58.34% in 2001. It is also changing the face of our export basket. Classifying exports according to factor intensity, suggests that the relative share of unskilled labour intensive goods is increasing. Distinguishing between exports on the grounds of capital/labour intensity also indicates that we are increasingly exporting labour intensive goods. Focusing on the percentage change in real gross salaries per employee between 1993 and 2001, the value for the total manufacturing industry is 19.65%. It is striking that the increase in the unskilled labour intensive category is below average and the lowest of all four categories – despite the fact that this category supplies an increasing share of manufacturing exports.

Globalisation did not succeed in creating jobs. Employment in the total manufacturing sector declined by 11.12% between 1993 and 2001. The unskilled and technology intensive sectors are the best off with declines of only 0.92% and 1.24%. The other striking trend is that it is the semi- and unskilled workers in all categories who experienced the highest percentage of job losses, while the number of highly skilled increased in two cases and had the lowest decline in the other categories.

With an unemployment rate of about 40% expectations are high that trade liberalisation will help to create jobs, especially in the manufacturing sector. However, the "jobless growth" phenomenon is clearly confirmed in the South African manufacturing industry. While the volume of production increased by 1.53% between 1995 and 2001, employment decreased by 2.48%. This could only be attained through increasing productivity. Over this period labour productivity, measured by unit production per employee, increased by 21.65% in real terms.

Regression results on the effect of trade liberalisation on the South African manufacturing industry can be summarised by looking at the explanatory power of three variables: tariffs, net exports and trading partners. Exports' share of total sales has an impact on employment levels and the skills ratio. The larger the share of exports relative to domestic sales, the higher the employment level and the more highly-skilled workers are employed relative to semi- and unskilled. Neither the level of tariffs in 1994 nor the change since then is statistically significant in the regressions. The hypothesis that the destination of exports matters also does not seem to be relevant. The dummy variable with a value of 1 if the main destination of exports is a high-income country, is nowhere significant. – although one could expect it to affect the skills level of employment and perhaps wages. This may be because

our main trading partners are predominantly high-income countries, and the low-income group is poorly presented in the sample.

At this stage globalisation does not seem to have a visible impact on South African income distribution. It did not lead to high growth, which could have increased equality. The increasing financial flows had a destabilising effect rather than resulting in the desired fixed investment and job creation. Considering job losses between 1993 and 2001, in all the manufacturing sectors semi and unskilled workers were worst hit by retrenchments. To have a visible effect, globalisation needs to address unequal distribution either by growth in general or directly through employment and higher wages, especially of unskilled workers.

Globalisation alone will not solve South Africa's economic problems. Together with the opening up of our markets, we need stable macroeconomic conditions and less regulated labour markets in order to attract foreign direct investment. Regarding trade liberalisation the way forward for South Africa is one of adjusting to the requirements of the international arena. Empirical evidence of this study (and others) show that the impact on employment levels didn't mainly come through job losses because of import penetration and lowering of tariffs. There is thus no reason to oppose the further opening up of our markets. The true challenge is to be(come) competitive in the export markets. This study suggests that exports do have a positive impact on employment. However, the demand is for highly skilled workers - in all sectors of manufacturing. Therefore education and training should be a priority. Hopefully the recent focus on skills development will bear fruit in this regard. Our unemployment rate can only be addressed if the skills level of the workforce meets the conditions of the market. And without a vast improvement in employment figures, we cannot attain more acceptable levels of income distribution.

1. INTRODUCTION

The normalisation of South Africa's international political and economic relations in the early 1990s made us a latecomer to the globalisation game. Since then the country has undergone trade liberalisation through a reduction in the general level of tariff protection on imports and much more emphasis on export promotion. The gradual phasing out of foreign exchange control started the process of external financial liberalisation. This was complemented by several measures of domestic financial liberalisation.

1.1 South Africa re-enters the arena

The effect of the above-mentioned measures was severely felt in the domestic economy. On the production side, the local economy underwent a streamlining process. The quest for competitiveness in the global market resulted in significant job losses over almost the whole spectrum of manufacturing industries. On the financial side, the opening up of our markets together with our well developed financial system, led to volumes of capital flows never experienced before. This resulted in increased volatility in the exchange rate of the rand.

Because the normalisation of South Africa's international political and economic relations was only effected in 1994, the country was a latecomer in the globalisation game. It is hard to date the actual start of South Africa's economic globalisation. What we do know is that it happened only after the country's deteriorating economic and political performance since the early 1980s. There are a number of prominent features or landmarks in the globalisation process.

The country's commitment to trade liberalisation started in 1990 under the previous regime and gathered momentum with the signing of an agreement with the World Trade Organisation (WTO) in January 1994 to reduce the general level of tariff protection from a weighted average of 30% to 15%. The tariff structure was rationalised and import quotas replaced with tariff measures in respect of agricultural imports. Liberalising the external trade regime has been one of the central and more visible elements of South Africa's drive to achieve accelerated economic growth. This liberalising is symbolic of the country's break with past economic policies, and ensures that our domestic markets become deeply integrated with those of the rest of world (DTI 2001:7).

In March 1994 the government announced the gradual phasing out of foreign exchange control, a process of external financial liberalisation which is still underway but which has already removed all exchange control on foreigners. The above external financial liberalisation was preceded and subsequently complemented by domestic financial liberalisation. Examples of prominent measures introduced over the past 20 years are: enhanced market entry (with permission in 1995 to foreign banks to open branches in South Africa), development of new markets (such as the market for financial derivatives), the introduction or development of new financial instruments (such as commercial paper, equity options and futures contracts) and the replacement in March 1998 of the Bank rate with the more market-related repo rate (Calitz 2000).

The Chicago Mercantile Exchange started to trade South African rand futures and option contracts in May 1997.

1.2 Aim

This paper evaluates the impact of globalisation on the domestic South African economy. With a Gini coefficient of 0.593 (World Bank 2000a) South Africa has one of the most unequal income distributions in the world. Against this background the following two questions will be considered: how did globalisation affect the economic growth rate, and how did it impact on income distribution?

The process of answering the question starts with defining globalisation. Then the channels through which globalisation can affect domestic economies are identified. Empirical evidence is evaluated against the background of our income distribution picture. The paper concludes with some policy considerations.

2. DEFINING GLOBALISATION

The number of descriptions for globalisation is almost as vast as the literature on this topic. The IMF (1997) describes globalisation as "the growing interdependence of countries world-wide through the increasing volume and variety of cross-border transactions in goods and services and of international capital flows, and also through the more rapid and widespread diffusion of technology." Ajayi (2001) defines it as the increasing interaction among, and integration of, the activities – especially economic activities – of human societies around the world; resulting in the expansion of international flows of trade, finance and information into an integrated global market. A more comprehensive and detailed description comes from Duncan (2000), who defines globalisation as the process of closer economic integration between countries; closer integration in terms of trade in goods and services, in investment (both fixed investment and portfolio investment), in the free movement of labour (in some cases such as the European Union), in the adoption of common currencies, and in joint international action on cross-border issues such as pollution. Perhaps the different descriptions can be summarised as the global circulation of goods, services and capital, but also of information, ideas and people (World Bank 2000b). Everybody seems to agree that globalisation has to do with the opening up of economies, resulting in the physical movement of goods, services, capital and technology. If this does happen, it should also improve the global working of markets.

3. THE IMPACT OF GLOBALISATION ON DOMESTIC ECONOMIES

Much has been written about the international economic impact of globalisation. Most authors consider the effect that it has on financial flows or capital movements, trade, growth and wages. The impact on income distribution (equality) is measured through the effect on employment and wage levels. The next section summarises some of the main arguments and empirical findings.

3.1 Effect on financial flows

The World Development Report (World Bank 2000a) starts its discussion of the global financial system by comparing the nature of capital flows at the end of the 20th century with flows at the end of the 19th century. In the earlier period such capital was used to finance infrastructure projects and direct investment in companies. Today foreign direct investment is channelled primarily through multinational corporations that open access to markets, spread new technology and provide workers with training. Another type of capital is dominating financial flows. Portfolio investment consists of highly mobile money, from investment funds and wealthy individuals, that is ready to move across borders very quickly in search of the highest short-term returns. The challenge for developing economies is to capture the gains from these capital movements while limiting the accompanying risk of volatility and instability. These patterns and warnings are also reflected elsewhere in the literature.

According to Trabold (1997) there was a sharp increase in both foreign direct investment and portfolio investment during the 1980s and the recent intensification of global economic integration is evidenced most clearly by capital flows. O'Rourke (2001) agrees that the ratio of gross to net capital flows is much greater now than during earlier periods of globalisation, reflecting greater volumes of short-run capital flows. The composition of flows has become far more balanced, with an almost equal split between direct and portfolio flows, and a fairly equal division within portfolio flows between bank lending, bond issues, and equity finance. Presumably, however, net long-run flows matter more than gross short-run flows for growth and income distribution. Foreign direct investment (FDI) in particular can serve as a vehicle for technological transfer and thus hasten international convergence, as it did in Ireland during the 1990s. The changing sectoral composition of FDI over time suggests that FDI is probably playing a more important role in this regard in the early 21st century than it did in the late 19th century.

Masson (2001) also stresses the potential of capital inflows to contribute to growth by stimulating investment and promoting financial development. However, he points out that capital flows to developing countries have been subject to volatility and these volatile financial markets seem to bring volatility in economic activity as well. The findings of a UNU/WIDER project (Anwar 2002) suggest that, in addition to spurring financial crises, the liberalisation of the domestic and international financial system has caused an increase in income inequality much greater than that caused by other policy changes such as trade and labour-market liberalisation and privatisation. Increases in real interest rates, a result of the liberalisation of domestic financial markets, benefited lenders at the expense of borrowers – including governments. Interest payments on public debt have risen rapidly, and a large part of the government budget in many middle-income countries now goes towards interest payments rather than social expenditure. In Latin America and Asia, for instance, inequality increased during periods of financial crisis in 73% and 62% of the cases respectively, while Finland, Norway and Spain experienced a sequence of banking and financial crises without experiencing increased inequality thereafter (Cornia and Court 2001:18). Therefore, capital account liberalisation is increasingly perceived to have caused increasing income inequality in many developing countries, particularly in Asia and Latin America. In emerging economies the main challenge is to reduce

the output volatility associated with financial contagion. Often exchange rate policy and financial regulation are the weak points in emerging economies.

3.2 Effect on trade and growth

According to the World Bank (2000a) the striking aspects of globalisation that caught world-wide attention in the 1990s included capital flows, migration and environmental issues. But the expansion of trade remains the driving force behind globalisation. In this regard, trade in goods and services grew twice as fast as global GDP during the 1990s. According to Wolf (1997) global ratios of exports to output returned to 1918 levels by 1970 but have since risen between 12% and 17%. The share of developing countries in world trade has increased from 23% to 29%, offering developing economies new opportunities for growth.

Over the past fifty years, trade has been a major force driving economic growth, with global trade expansion far outstripping global GDP growth. In the 1990s alone, world trade grew at an average annual rate of 6.8%, more than double the annual world output growth of 3.2%. For developing countries as a whole, the benefits have been greater – with trade increasing at 8.3% and growth 5.5% (Gondwe 2001). The benefits of economic growth are reflected in per capita GDP. According to Masson (2001:7) there is evidence of dramatic increases in per capita income that have accompanied the expansion of trade of those countries that have globalised. Among the countries pointed out are Korea, China and Ghana.

However, closer to home, it does not seem as if Africa has been one of the main beneficiaries. At the start of the 21st century, poverty remains Africa's most pressing problem, and economic growth is considered to be the best way towards poverty reduction. With respect to capital markets it has been noted that Africa was arguably the first continent to become integrated with the world economy: a higher proportion of Africa's wealth is held internationally than that of any other continent. Estimates of the ratio of capital flight from African countries to Africa's GDP range from 24% to 143%. Although the global level of private capital flows has increased, Africa has also missed out on the benefits that usually accompany such flows, such as job creation and the transfer of technology (Ajayi, 2001).

3.3 Effect on income distribution

Much of the research being done on the impact of globalisation focuses on the possible redistributive effects. Does it make the world a more or a less equal place? How does it affect income distribution internationally (between countries) and nationally (within countries)?

Many champions of free trade and free capital movements say that world income distribution is becoming more equal as globalisation proceeds. The neoliberal paradigm generates a strong expectation that as national economies become more densely interconnected through trade and investment, world income distribution tends to become more equal (Wade 2001). The evidence suggests that none of the possible measures clearly shows that world income distribution has become more equal over the past twenty years. On the contrary, seven out of eight measures show varying degrees of increasing inequality.

3.3.1 International studies

O'Rourke and Williamson (2000) start their explanation with two conditions. Trade-creating forces must change domestic commodity prices and then these price changes must induce a reshuffling of resources between economic activities in order for trade to influence the things that really matter, like the scale of output, distribution of income (land returns relative to wages), absolute living standards or the quality of life. The possible impact on resources is explained by the Heckscher-Ohlin theory that trade patterns reflect differences in the distribution of endowments across countries. Countries export goods embodying those factors of production with which they are well endowed. Commodity market integration therefore leads to an increase in the demand for abundant (and cheap) factors of production, thus raising their prices, and in the same way leads to the demand for scarce (and expensive) factors of production falling, thus lowering their prices (O'Rourke 2001:2).

Practically speaking, imports from countries that have a relative abundance of unskilled labour should lower the prices of products that use such labour relatively intensely. This will shift production in advanced countries towards products that are intensive in skilled labour, increasing demand for skilled labour and lowering demand for unskilled labour. This shift will be manifested in either a growing wage gap between skilled and unskilled workers, or in rising unemployment of the latter in advanced economies (Wolf 1997). On the other hand, in the exporting country, demand for unskilled labour intensive goods should increase, leading to higher wages for unskilled workers and a more equal distribution. The standard Stopler-Samuelson prediction is that free trade increases income for the abundant factor and reduces income for the scarce factor (Lindert and Williamson 2001). Freer trade allows those abundant in unskilled labour to shift towards unskilled labour intensive production, raising unskilled wages relative to skilled wages.

Things get more complicated once we move away from a simple 2x2 framework. The outcome can be different when considering other factors influencing inequality. For example, migrating unskilled workers can cause an effect opposite to the one described. According to O'Rourke (2001) the impact of migration on within-country inequality largely depends on the skill mix. In the late 19th century, migration predominantly involved young, unskilled adults, with very high-labour force participation rates. It had a large potential impact on inequality, lowering it in Europe and raising it in the New World. As the 20th century progressed, the picture became increasingly similar, at least for the US: the skill profile of immigrants, relative to the native born, has declined dramatically since the mid-1960s. In countries where policy measures have encouraged more skilled immigration, greater inequality in emigrant economies could occur, and greater equality in immigrant countries: the opposite of what occurred in the late 19th century (O'Rourke 2001:16).

Technology transfer can also alter the picture. Liberalisation and foreign direct investment may introduce new technology and skill-intensive activities into developing countries, raising the demand for skilled labour and raise wage inequality. Cornia and Court (2001) found that new technology does lead to rising income inequality in developing countries. Other factors apart from technology also influence inequality. They include macroeconomic conditions, financial liberalisation, labour market liberalisation, privatisation and the tax system.

Have incomes been converging or diverging within countries? The empirical evidence renders mixed results, although some agreement exists over the effect on high-income countries as a group compared to developing economies as a group.

According to Cornia and Court (2001) there is increasing consensus that trade has only a small impact on wages and income inequality. O'Rourke (2001) shares this view and concludes that cross-country studies leave many questions regarding the links between openness and inequality unanswered. Further research is needed before any conclusive remarks can be made. But findings to date suggest that openness has at most a modest impact on inequality (in either direction).

Duncan (2000) reports that in high-income countries, there appears to have been increasing inequality in some cases, e.g., the Netherlands, Norway, the UK and the US, but not in Canada and France. The most significant part of the increase in wage inequality in the UK and US has been the increase of the top decile of income earners relative to the median, not to the bottom decile. Wolf (1997) quotes a study by Slaughter and Swagel concluding that increased trade accounts for only about 10 to 20 per cent of the changes in wages and income distribution in the advanced economies. Although the effect is relatively small, it does exist. O'Rourke (2001) reports empirical findings to be consistent with other studies and the Heckscher-Ohlin theory, in finding sharply rising wage inequality in Britain and the US, while other countries renders varying results. As many advanced countries saw wage dispersion falling as saw it rising between the mid-1980s and mid-1990s.

Among developing countries, the picture is mixed as well. Inequality has been steadily declining in Latin America from the 1960s. The patterns in Africa and the Pacific Rim are rather erratic, rising between the 1960s and 1970s, falling throughout the 1980s, and rising again between the 1980s and 1990s. On the other hand, within-country inequality has been rising in China and India since the mid-1980s (Lindert and Williamson, 2001). Wei and Wu (2001) confirm this trend in China where dramatic increases in openness over the last two decades were accompanied by higher overall income inequality. The Gini coefficient increased from 38.2 in 1988 to 45.2 in 1995. But across China, openness and urban-rural inequality tend to be negatively associated. Cities that have had a greater increase in trade-to-GDP ratio have also tended to witness a reduction, rather than increase in urban-rural income inequality.

3.3.2 Previous studies regarding South Africa

Various studies on the impact of globalisation on the South African economy (labour market and manufacturing industry) have appeared recently. The following paragraphs give a brief summary.

An ILO study (1999), covering the period 1993-1997, on the social impact of globalisation found that since the start of liberalisation export-oriented sectors performed better in terms of output, productivity gains and wage increases than import-competing sectors. Manufacturing sectors based on natural resources and capital intensive ones showed the same trend. However, employment losses in these sectors have been relatively larger. Formerly highly protected sectors and those with important decreases in tariffs experienced lower relative employment losses than

other sectors. This suggests that the direct impact of import liberalisation is not the main factor behind employment losses.

Alleyne and Subramanian (2001) have investigated the relationship between South Africa's trade and labour market between 1989 and 1997. They conclude that South Africa's trade is relatively capital abundant, and the country is a net exporter of capital intensive goods. The higher the capital-labour ratio in the production of a commodity, the greater the probability that we will be a net exporter thereof. Their regressions also indicate that the higher the skilled-unskilled labour ratio, the lower the probability that we will be a net exporter.

Tsikata (1999) found that manufacturing sub-sectors reacted differently to changes in trade-weighted protection. Among the sectors facing the largest declines in nominal protection some increased both output and employment, while others showed the opposite trend. Regarding factor intensity of exports she found that between 1992 and 1996 South Africa had a declining share of exports that used unskilled labour and a relatively high share using more skilled labour and technology.

Fedderke et al (1999) used dynamic heterogeneous panel estimation for the period 1970-1997 to investigate the effect of trade liberalisation on labour markets. They concluded that liberalisation stimulated the demand for labour in South Africa. Trade also led to positive growth in labour-earnings, which exceeded that of capital. Technological progress on the other hand led to negative growth in labour earnings.

Edwards (2001) follows a factor content approach to analyse the impact of trade on employment. He observes a shift towards capital-intensive exports and ultra labour-intensive imports. Changes in occupational employment are decomposed into four demand side factors: domestic final demand, export expansion, import substitution and technological change. The study concludes that final demand and technology are the primary sources of change in employment. The impact of exports on employment is favourable, but import penetration shed many job opportunities.

The findings of Jenkins (2002) correlate with Edwards'. Between 1994 and 2001 import penetration affected employment in the manufacturing sector, but was more than offset by the additional employment associated with growing exports. Compared to export growth, domestic demand had a relatively small positive effect on employment. However, productivity changes had the dominant influence and contributed to the overall decline in employment. In terms of the skills-level of employment Jenkins confirms the skill bias in the changing pattern of trade in South Africa between 1994 and 2001. During this period greater openness increased employment of semi- and unskilled workers by 5.5%, skilled workers by 7.2% and highly skilled by 8.2%. He further estimated the demand for labour by regressing employment on output, remuneration per head, import penetration ratio and share of exports in total output. He found that output had a significant positive effect on employment, and wages a negative impact. Import penetration had the expected negative impact, but exports did not have a significant impact on employment.

The empirical part of this paper, section 5.3, will further comment on the factor intensity of our exports and the impact of globalisation on employment and salaries.

4. OUR UNEQUAL INCOME DISTRIBUTION

As described before, globalisation has a possible impact on wage inequality and employment, and therefore on the primary distribution of income. It can affect poverty through higher economic growth, which is the key to poverty reduction. Unless growth seriously worsens income distribution, the number of poor people will fall as average income increase. For any given level of income the level of poverty will depend on how income is distributed. The distribution of any increment to growth will determine the rate at which growth is converted into poverty reduction. According to the World Bank (2000b), periods of growth are almost as often associated with increases in inequality as they are with declines. Similarly, there is no simple association between openness to trade and changes in inequality. There are about as many cases where inequality fell with more trade openness as cases where it increased. Evidence from the Kuznets curve is presented by, among others, Barro (1999). He concludes that Gini values rise with GDP values of less than $1636 (1985 US$) and decline thereafter – empirical regularity that inequality first increases and later decreases in the process of economic development. From a South African perspective there is no doubt that growth is definitely good for the poor. In explaining why certain sections of the population enjoyed rising incomes between 1991 and 1996, Whiteford and Van Seventer (1999) show that more than 90% of the income gains were derived from growth in total income as a result of economic growth, whereas less than 10% was derived from a straight redistribution. This clearly illustrates the redistributive power of economic growth in South Africa.

Whiteford and Van Seventer's study (1999) indicates that inequality in South Africa is high and rising. The Gini coefficient for the population as a whole has seen little change over the period 1975 to 1996, with a slight increase from 0.68 in 1975 and 1991 to 0.69 in 1996. However, there have been substantial changes within population groups, with the largest increase in inequality having occurred within the African and white population groups. The African Gini has risen from 0.47 in 1975 to 0.66 in 1996. Similarly the white Gini has risen from 0.36 to 0.50 over the same period. More recent calculations confirm this rising inequality. Gini coefficients estimated only on pay, and therefore not comparable with those mentioned earlier, also indicate increasing inequality within population groups. For Africans it increased from 0.70 to 0.81 in the period 1995-98, and for whites from 0.55 to 0.67 (Statistics South Africa 2000:88). These indications of increasing wage differentials are worrying. According to Bhorat et al (2001) wage income accounts for 66% of national income and makes a similar contribution to inequality. If wage income is increasingly being distributed unequally, the overall Gini should also reflect higher levels of inequality.

Apart from the rising inequality, poverty is also increasing. The number of households living of an income of R0-R6000 has increased from 219 0098 in 1991 (29.24% of total households) to 298 2093 in 1996 (30.56% of total households) (Whiteford and Van Seventer, 1999).

The moderate levels of economic growth in South Africa have clearly imposed some constraint on the reduction of inequality. The low level of economic growth limited the capacity of the economy to create employment. Hertz (1998) shows that the achievement of full employment would reduce the share of the population in poverty

by almost half. Inequality would also be reduced since mass employment creation tends to benefit less skilled workers.

In section 5 it will be pointed out that the number of people employed in the manufacturing sector declined between 1993 and 2001. This trend is visible throughout the formal sector. At the same time the skill composition of employment changed considerably. With the opening up of the South African economy and adherence to a strict programme of trade liberalisation, the number of highly skilled persons employed showed strong growth while the number of less skilled persons declined (Whiteford and Van Seventer 1999). The increasing demand for skilled workers can be explained by technology transfer and the resulting need for skilled, or more educated, workers. A study by Desai, Fukuda-Parr, Johansson and Sagasti (2002) describes South Africa as a "dynamic adopter," the same classification given to Brazil, China, India, Indonesia and Tunisia. These countries have important high-technology industries and technology hubs, but the diffusion of old inventions is slow and incomplete. However, this trend is likely to have contributed to rising inequality since there was an increase in the small number of well paid, highly skilled persons employed, a decrease in the number of less-skilled persons in the formal sector, and an increase in the number of people who had lost their jobs and were forced into the informal sector.

In 1991 a total of 1 055 000 highly-skilled persons were employed in the formal sector. This rose to 1 459 000 in 1996, an increase of 35%. Over the same period the less-skilled employees declined from 6 933 000 to 6 256 000, a decrease of 10%. For the period 1998-2003 predictions are that highly-skilled employment will grow by a further 8.9% and less-skilled decrease by 1.4% (Whiteford and Van Seventer 1999). Surprisingly, the average earnings in real terms of both groups decreased between 1991 and 1996. Highly-skilled earnings fell by 15%, and lower-skilled by 10%. It is estimated that the unemployment rate will rise from 36.6% in 1998 to 41.7% in 2003. This scenario of a small, but growing, group of highly skilled, well paid workers accompanied by a growing mass of unemployed persons suggests that inequality will further increase in the future.

5. THE SOUTH AFRICAN EXPERIENCE: SOME EMPIRICAL EVIDENCE

The aim of this paper is to measure the possible impact of globalisation on income distribution or equality. The discussion starts with the macroeconomic picture, in terms of financial flows, trade and growth. It is, however, difficult to measure the direct impact of macro variables like capital flows and exchange rate volatility on income distribution. Therefore this macroeconomic discussion contains no clear cut empirical evidence. On a more micro level, the impact of globalisation on the manufacturing sector is evaluated through the effect on employment – and wage levels.

5.1 Globalisation and financial flows

As with other developing countries, capital flows to and from South Africa are highly volatile. Our emerging-market status results in financial fragility and an undesirable

composition of capital flows to the country. The effect of the Asian crisis was severely felt. In addition to the influence of international crises outside Africa, we are also at the mercy of crises in neighbouring countries, as the ongoing crisis in Zimbabwe clearly shows (Van Zyl 2002).

The nature and extent of capital flows to and from South Africa (since 1991) are indicated in table 1. Since 1992 the largest part of capital inflows was in the form of portfolio investment. These are typically not long-term funds, and are withdrawn at the slightest indication of uncertainty. The inflow of foreign direct investment reached a peak in 1997, but declined again after the 1998 Asian crisis.

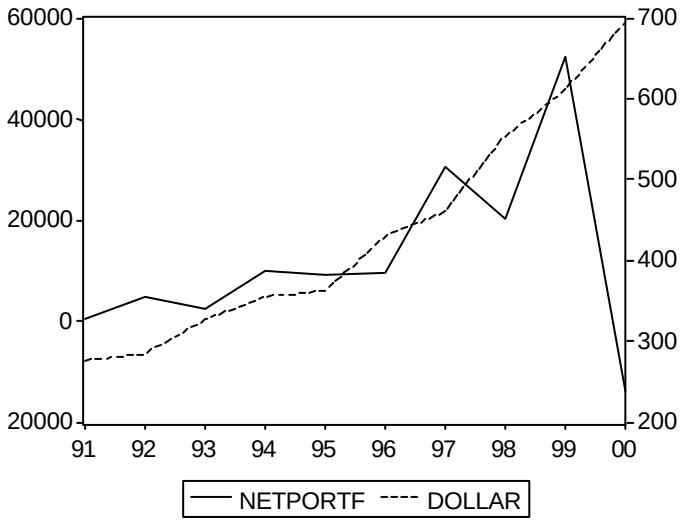
Table 1: Composition of South African capital flows

	NET DIRECT INVESTMENT (R MILLIONS)	NET PORTFOLIO INVESTMENT (R MILLIONS)
1991	111	666
1992	-5514	4950
1993	-941	2417
1994	-3040	10008
1995	-4557	9020
1996	-970	9576
1997	6756	30580
1998	-6737	20375
1999	-475	52346
2000	4280	-13835
2001	85921	-67626

Source: SARB Quarterly Bulletin, June 2002.

The other alarming factor evident from table 1 is the net outflow of FDI for almost the entire period, and the net inflow of portfolio investment. The implication thereof is that no new productive capacity was created and that there could be no positive spin-offs for economic growth due to the more open flow of capital. In fact, the

Figure 1: Net portfolio flows and the R/US$ exchange rate.



destabilising effect of the volatile portfolio flows is the main feature of this aspect of globalisation. Figure 1 and table 2 show the correlation between these forms of capital movement and the exchange rate of the rand. Increasing volumes are accompanied by a depreciation of the currency. However, this positive correlation does not necessarily imply causality. The constant depreciation severely impacts on the average South African, through its effect on inflation and consequent higher interest rates.

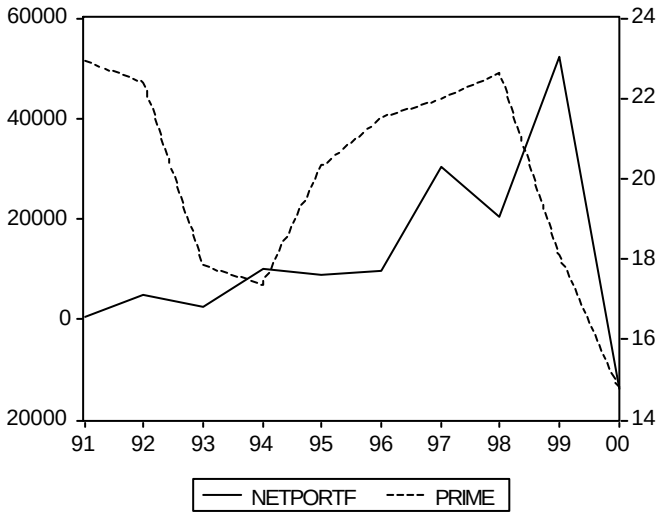
Table 2: Capital flows, exchange rates and interest rate

YEAR	NET FDI (R MILLIONS)	NET PORTFOLIO (R MILLIONS)	SA C / POUND	SA C / US$	PRIME OVERDRAFT RATE
1991	111	666	487.49	276.09	22.94
1992	-5514	4950	502.42	285.16	22.40
1993	-941	2417	491.00	326.67	17.86
1994	-3040	10008	543.74	354.97	17.36
1995	-4557	9020	572.43	362.70	20.33
1996	-970	9576	671.96	429.64	21.52
1997	6756	30580	754.85	460.73	22.00
1998	-6737	20375	916.33	553.16	22.64
1999	-2730	52346	989.21	611.31	18.10
2000	2170	-13835	1048.63	693.53	14.83
2001	85921	-67626	1239.15	860.31	13.77

Source: SARB Quarterly Bulletin, June 2002

In the aftermath of the Asian crisis in 1998, the monetary authorities were forced to increase domestic interest rates, a measure that is possible again in 2002. Table 2 and Figure 2 show some kind of positive relationship between the net portfolio flows and the prime overdraft rate. Again, this must not be seen as proof of causality.

Figure 2: Net portfolio flow and prime overdraft rate



From the above discussion it is clear that South Africa has experienced increased capital flows during the past decade. Unfortunately these were in the form of portfolio investment rather than much-needed direct investment. There is no indication that increased capital flows have contributed to economic growth or improved the living conditions of average South Africans.

5.2 Globalisation, trade and growth

The effect of trade liberalisation on the South African economy is evident in the increasing openness (exports and imports as percentage of GDP) and changing composition of exports. Table 3 indicates that both exports and imports have increased as a percentage of GDP since the early 1990s. This resulted in an openness value of 58.07% in 2001 compared to 33.98% in 1990.

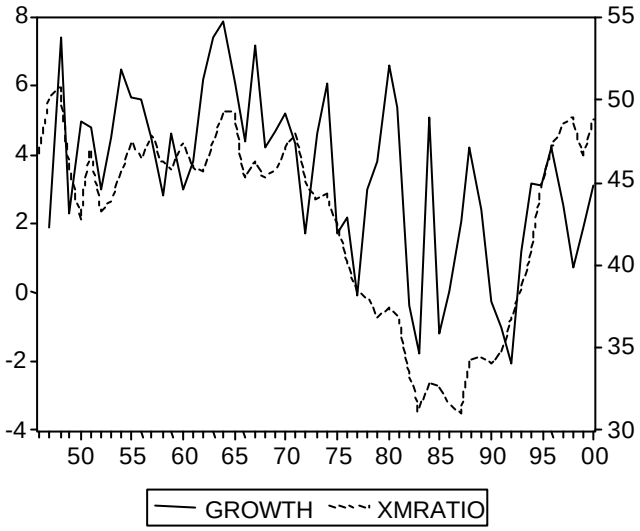
Table 3: Indicators of openness and growth

	EXPORT AS % OF GDP	IMPORT AS % OF GDP	EXPORTS PLUS IMPORT AS % OF GDP	GDP PER CAPITA IN RAND (REAL)	% CHANGE IN GDP PER CAPITA	ECONOMIC GROWTH
1985	18.93	13.64	32.58	15162	-3.4	-1.2
1986	18.21	13.31	31.52	14834	-2.2	0.0
1987	17.51	12.49	31.00	14825	-0.1	2.1
1988	18.45	15.78	34.24	15128	2.0	4.2
1989	18.99	15.46	34.45	15167	0.3	2.4
1990	19.38	14.61	33.98	14806	-2.4	-0.3
1991	19.57	15.07	34.64	14352	-3.1	-1.0
1992	20.50	16.22	36.73	13755	-4.2	-2.1
1993	21.49	17.82	39.31	13637	-0.9	1.2
1994	22.16	19.86	42.02	13786	1.1	3.2
1995	22.96	22.09	45.06	13920	1.0	3.1
1996	24.56	23.20	47.76	14218	2.1	4.2
1997	24.56	23.44	48.00	14291	0.5	2.5
1998	25.72	24.56	50.28	14100	-1.3	0.7
1999	25.64	22.92	48.57	14099	-0.0	1.9
2000	28.59	25.67	54.26	14287	1.3	3.1
2001	30.95	27.12	58.07	14321	0.2	2.2

Source: SARB Quarterly Bulletin June 2002

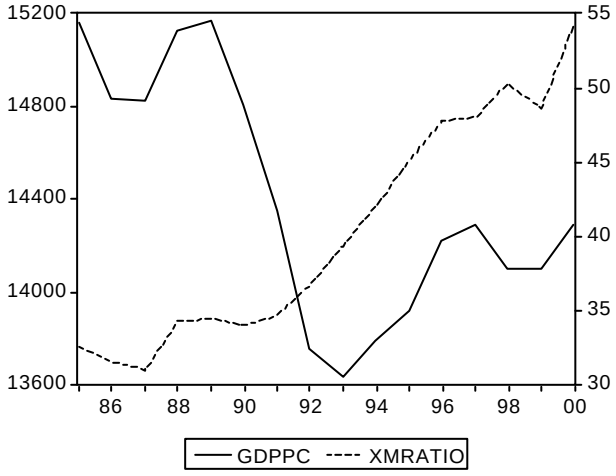
Earlier it was stated that many developing countries experienced significant increases in economic growth as their economies opened up. Looking at table 3, there is at first glance no clear link between openness and growth. Figure 3 paints a clearer picture. There seems to be a positive relationship between exports and imports as percentage of GDP (XMRATIO) and economic growth. The relationship weakened around the 1980s, the period of isolation, but is confirmed again since the 1990s. The positive link does not imply that trade or openness is the only determinant of economic growth.

Figure 3: Openness and economic growth



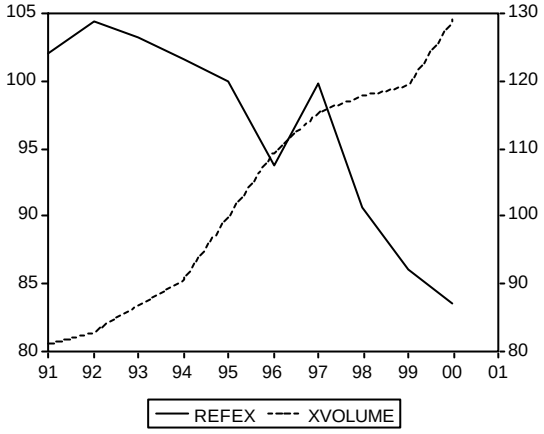
Another expected relationship that is not initially clear from table 3 is between openness and GDP per capita. However, figure 4 displays an interesting trend. Late in the 1980s there seems to be a negative relationship. But since trade liberalisation took place, say 1993-94, the increasing openness was mirrored in increasing levels of GDP per capita (GDPPC), although the absolute level remains low. The value for 1993 is the same as 1967.

Figure 4: Openness and GDP per capita



The improved performance of exports in table 3 cannot only be attributed to trade liberalisation. The ever-depreciating South African currency also played a role. Figure 5 indicates how export volumes (XVOLUME) increased while the real effective exchange rate of the rand (REFEX) decreased.

Figure 5: Export volumes and the exchange rate



The above evidence points to a close positive linkage between the exchange rate and trade liberalisation on the one hand, and improved export performance on the other.

Table 4: Composition of South African trade

	% CHANGE IN EXPORT VOLUME	% CHANGE IN IMPORT VOLUME	AGRICULTURE AS % OF EXPORTS	MINING AS % OF EXPORTS	MANUFACTURING AS % OF EXPORTS
1992	2.1	4.9	3.63	54.01	40.24
1993	5.0	8.2	3.65	54.37	40.50
1994	4.3	16.0	4.90	50.14	43.45
1995	10.4	17.0	3.83	44.06	50.57
1996	9.3	8.7	4.60	40.99	53.66
1997	5.5	5.4	4.10	39.61	55.72
1998	2.2	1.1	4.29	39.92	55.23
1999	1.3	-7.4	4.39	37.90	57.11
2000	8.2	7.4	3.24	37.98	58.34
2001	0.7	-0.3	3.47	37.89	58.34

Source: DTI

Apart from the changes in the level and relative importance of exports, the composition of exports also changed remarkably – see Table 4. Since 1992 (and before that) manufacturing goods is playing a more important role in total exports. Mining's share is constantly declining, while that of agricultural products remains relative stable.

5.3 Effect on the manufacturing sector

The focus now shifts towards the manufacturing sector. This sector accounted for 58.34% of our total exports in 2001 and seems to benefit from increased openness. A

closer inspection of trends within this sector will answer some of the questions raised earlier regarding the impact of globalisation on the utilisation of production factors.

Manufacturing in South Africa has traditionally been dominated by large, highly inward-oriented, and capital-intensive firms. The sector has been characterised by declining productivity for most of the past two decades (Tsikata 1999). These features were due in part to an explicit policy of import-substituting industrialisation supported by a complex system of tariffs and other import restrictions and trade sanctions. The anti-export bias, created by protection, skewed incentives towards production for the domestic market. Opportunities for learning and higher productivity were missed. The consequent weak international competitiveness has been well documented. More recently the sector has begun to rebound – output and export growth has picked up and the export base appears to be broadening.

After South Africa became a signatory to the Marrakech Agreement of (the then) GATT in 1994, the pace of trade liberalisation quickened. The key aspects of the liberalisation were contained in an offer of phased tariff reductions-cum-harmonisation made to the World Trade Organisation. The new tariff programme officially took effect in January 1995. However, there is still scope for rationalising the effective protection. While effective protection has fallen in the aggregate, it has not fallen by enough to reduce the overall anti-export bias once the role of reduced export incentives is taken into account. Mean effective protection via tariffs stood at 30.2% in 1990 and was down to 22.2% in 1996 (Tsikata 1999). The trade policy reforms changed the incentive patterns in two important and interrelated ways. They reduced the incentives for import-substituting activities and encouraged exports.

5.3.1 Trade by factor intensity

Table 5 reflects on some trends in South Africa's manufacturing exports by factor intensity for the period 1993- 2001. In an earlier study, Tsikata (1999) found a decline in the relative importance of unskilled labour intensive manufacturing goods from 55.3% in 1992 to 20.8% in 1996. Looking at table 5[1], this trend has since been reversed. Although the 2001 percentage of 40.18 is still well below the 1992 level of 55.3%, trade liberalisation seem to have been successful in increasing the relative share of unskilled labour intensive manufacturing goods in our export basket.

[1] These calculations have been questioned by Jenkins (2002), especially the inclusion of "motor vehicles" in the unskilled labour intensive category rather than the human capital one. If "motor vehicles" is omitted from the unskilled group, the relative share of this category do decline, but the identified trend of unskilled labour intensive products gaining ground relative to the other sectors is still present.

Table 5: South African manufacture exports by factor intensity

	% OF MANUFACTURING EXPORTS		% CHANGE BETWEEN 1993 AND 2001				
	1993	2001	Total empl	High Skilled	Skilled	Semi &Un	Sal per empl
Agricultural resource intensive	15.83	12.40	-17.61	-8.58	-6.90	-24.42	25.96
Mineral resource intensive	12.14	12.86	-47.58	-32.12	-43.81	-50.49	28.76
Unskilled labour intensive	29.84	40.18	-0.92	16.37	5.87	-4.81	12.97
Technology intensive	10.19	10.46	-1.24	-1.22	-14.93	-19.89	37.96
Human capital intensive	32.02	24.11	-12.32	2.21	-3.59	-20.95	18.72

Source: Annex 2

The performance of the human capital intensive sectors is also striking. It declined as share of total exports from 32.02% to 24.11%. This could reflect a shortage of skilled labour. According to Levy (1996) a survey of manufacturing firms indicated that a shortage of skilled technical and managerial labour put a serious constraint on economic performance. In another study Sadie (as quoted in Mohr and Rogers 1994) estimated that the shortage of executives (entrepreneurs) and skilled labour for the period 1980-2000 is 103 000 and 442 000 respectively, while the surplus of unskilled workers is 2 768 000.

Since trade liberalisation, the composition of South Africa's manufacturing exports has changed visibly. The share of unskilled labour intensive goods increased and human capital intensive goods declined. However, globalisation did not succeed in creating jobs. Employment in the total manufacturing sector declined by 11.12% between 1993 and 2001. The unskilled and technology intensive sectors are the best off with declines of only 0.92% and 1.24%. The other striking trend from table 5 is that it is the semi- and unskilled workers in all categories who experienced the highest percentage of job losses, while the number of highly skilled increased in two cases and had the lowest decline in the other categories.

With an unemployment rate of about 40% expectations are high that trade liberalisation will help to create jobs, especially in the manufacturing sector. Table 5 clearly confirms the "jobless growth" phenomenon in the South African manufacturing industry. While the volume of production increased by 1.53% between 1995 and 2001, employment decreased by 2.48%. This could only be attained through increasing productivity. Over this period labour productivity, measured by unit production per employee, increased by 21.65% in real terms.

On the import side, import penetration has risen in almost every sector of manufacturing. It increased from 24% of total domestic consumption in 1995 to 33% in 2001 (Department of Trade and Industry, SA Manufacturing Trends 1993- 2001). Looking at the trends, no de-industrialising took place. Furthermore, no noticeable change has occurred in the relative importance of the different importing sectors since 1993 (see Annex 1). There was also was no clear pattern in the individual sectors' responses to declines in nominal protection. Some of the sectors facing the largest decline increased output and employment over the period 1993-2001, while others showed an opposite trend (Tsikata 1999).

The last column in table 5 indicates the percentage change in real gross salaries per employee between 1993 and 2001. For the total manufacturing industry the value is 19.65%. It is striking that the increase in the unskilled labour intensive category is below average and the lowest of all four categories – despite the fact that this category supplies an increasing share of manufacturing exports.

5.3.2 Trade by capital/ labour intensity

The classification used in table 5 above has been criticised because it was not developed especially for South African manufacturing and can be misleading – see Alleyne and Subramanian (2001). In table 6 the alternative classification (on the grounds of input-output tables) used by Edwards (1999) was followed. The change in our export basket is even more evident from this. Since 1993 the relative importance of capital intensive goods has declined, while labour intensive and intermediate capital intensive goods gained ground. This was expected because the largest

Table 6: South African manufacturing exports by capital/ labour intensity

	% OF MANUFACTURING EXPORTS		% CHANGE BETWEEN 1993 AND 2001				
	1993	2001	Total empl	Highly Skilled	Skilled	Semi &Un	Sal per empl
Capital intensive	52.36	43.38	-16.48	-4.05	-7.34	-26.29	21.36
Intermediate capital intensive	19.58	22.05	-22.39	-4.59	-13.43	-29.24	25.56
Labour intensive	14.10	22.51	-4.40	9.40	-3.29	-13.39	25.45
Ultra labour intensive	13.97	12.07	-0.77	11.36	9.96	-4.28	4.33

Source: Annex 3

share of our exports go to high-income countries which are regarded as capital-rich, while South Africa is better endowed with labour. Again it is the labour intensive and ultra labour intensive sectors that showed the lowest percentage decline in

employment, with job losses relatively more for the semi- and unskilled workers, and the job increases favouring the highly skilled in all categories.

Regarding the change in salary per employee, table 6 indicates the same trend as observed in table 5. Again the increase in real gross salary per employee is considerably lower in the ultra labour intensive category. On average, real wages increased relatively more in capital intensive sectors than labour intensive ones. However, it is dangerous to conclude about a possible change in relative salaries between skilled and unskilled workers purely from the trends in table 5 and 6. In all sectors workers with various skill levels are employed.

5.3.3 Cross sectional regression analysis

This section employs regression analysis to explain changes in manufacturing employment levels and salaries between 1993 and 2001. The main question to answer is whether or how globalisation, observed in tariff changes and trade patterns, impacted on these two variables and consequently on income distribution. Cross-sectional regressions are run using 27 manufacturing sectors. The variables employed are:

DEmpl:	Percentage change in employment 1993-2001
DSalperEmpl:	Percentage change in salary per employee 1993-2001
DHStoUratio:	Percentage change in the ratio highly skilled to semi- and unskilled workers 1993-2001
Tariff94:	Tariff per sector in 1994
DTariff:	change in tariff 1994-2001
AvNCperEmpl:	Average spending on new capital goods per employee for period 1993-2001
AvNetEx:	Average net exports for period 1993-2001
AvNetExperSales:	Average of net exports as ratio of total sales for period 1993-2001
DSales:	Percentage change in sales 1993-2001
DumHi:	Dummy variable with value of 1 if main destination of exports is a high income country
DXofSales:	Percentage change in ratio exports to sales 1993-2001

As mentioned before, the reason for running these regressions is to try to explain changes in employment and salaries over this period by means of indicators of globalisation. It does not, for instance, try to estimate output and/or wage elasticities of employment as was done by Jenkins (2002).

The explanatory variables are included to test or investigate the following expectations:

- Both the level of and change in tariffs are included with the expectation that sectors with high initial tariffs and/or largest reduction thereof would suffer in terms of import penetration and consequent job losses.
- Three variables test for the possible effect of net exports. Average net exports and the ratio of average net exports to total sales consider the possibility that sectors with high levels of net exports favour employment levels and salaries. DxofSales is included to see if sectors increasingly producing for the export market employ more workers and/or pay higher salaries.

- A positive or negative change in real sales (DSales) could have a positive or negative impact on both employment and salaries.
- AvNCperEmpl is included as proxy for the capital intensity of each sector. A positive coefficient would indicate that those sectors spending relative more on new capital goods tend to employ more workers and pay higher salaries, and vice versa.
- DumHi tests whether employment and wage levels show different trends when exporting to different categories of countries.

Table 7 gives a summary of the regression results. The first regression is an attempt to explain the percentage change in employment levels for the period 1993-2001. Three of the explanatory variables can to some degree be considered statistically significant. The first one has a probability of 2.47% and indicates a negative relationship between AvNCperEmpl and employment levels. This is a possible sign of people losing their jobs because of higher spending on capital goods or new technology. The other two variables that prove to be significant, although at levels of 91.92% and 84.49%, have to do with exports and can explain the effect of trade liberalisation on employment. The sectors with the highest ratio of net exports to total sales seem to be the ones where employment levels have increased. Apart from the actual level of trade, the change in the ratio of exports to sales also seems to influence employment. In the sectors where exports made up a larger portion of total sales in 2001 than in 1993, employment levels increased.

Table 7: Results of cross-sectional regressions

	DEPENDENT VARIABLE		
	Dempl	DSalperEmpl	DHStoUratio
Tariff94	-1.579		
	0.68%		
DTariff	-3.458		
	0.23%		
AvNCperEmpl	-1.021		0.665
	2.47%		*0.59%*
AvNetEx			0.001
			61.86%
AvNetExperSales	0.094		-0.016
	8.08%		*52.04%*
DSales	0.008	0.225	
	93.73%	*3.67%*	
DumHi	5.147	-0.523	2.303
	64.74%	*94.25%*	*65.58%*
DXofSales	0.030	-0.006	0.029
	15.51%	*82.65%*	*16.73%*
DHStoUratio		-0.357	
		5.70%	

- Estimated with White heteroskedasticity-consistent standard errors and covariance.
- Probabilities of estimated coefficients are reported in italics

The second regression has "percentage change in salary per employee" as a dependant variable. Only two explanatory variables draw attention. The percentage change in real sales is the most significant one – indicating that the sectors experiencing the highest increase in total sales were the ones increasing their salaries per employee. It is worth noting that change in sales was not significant in explaining the change in employment, but now is significant in explaining change in salaries. It may indicate that higher sales do not necessarily lead to more people being employed, but better salaries being paid to the existing workforce. The coefficient of the last variable is puzzling. It indicates that salaries increase as the ratio of highly skilled to semi- and unskilled workers declines.

In the last regression only the ratio of exports to sales seems to impact on the skills level of employees. In the sectors where exports made up a larger share of sales in 2001 than in 1993, the ratio of highly skilled workers to semi- and unskilled increased.

The effect that trade liberalisation had on the South African manufacturing industry for the period 1993- 2001 can be summarised by looking at the explanatory power of three variables: tariffs, net exports and trading partners. Exports' share of total sales has an impact on employment levels and the skills ratio. The larger the share of exports relative to domestic sales, the higher the employment level and the more highly-skilled workers are employed relative to semi- and unskilled. Neither the level of tariffs in 1994 nor the change since then is statistically significant in the regressions. (This agrees with the findings of the ILO and Tsikata mentioned in section 3.3.2). The hypothesis that the destination of exports matters also does not seem to be relevant. The dummy variable with a value of 1 if the main destination of exports is a high-income country, is nowhere significant. – although one could expect it to affect the skills level of employment and perhaps wages. This may be because our main trading partners are predominantly high-income countries, and the low-income group is poorly presented in the sample.

5.4 Conclusion

Income in South Africa is distributed very unequally, and the level of inequality is rising. The main contributor at this stage is unemployment. For all the different racial groups inequality is increasing, distinguishing those with jobs from those without jobs. There are some indications that contrary to expectations unskilled wages are not increasing. Such an increase would have helped to close the wage gap and led to a more equal income distribution.

At this stage globalisation does not seem to have a visible impact on South African income distribution. It did not lead to high growth, which could have increased equality. The increasing financial flows had a destabilising effect rather than resulting in the desired fixed investment and job creation. Trade liberalisation led to a more open economy. Exports increased and manufacturing goods gained ground. The composition of exports changed, and within the manufacturing basket labour intensive goods became more important. Productivity increased, but did not lead to job creation, nor did it significantly increase unskilled wages. On top of the possible relative lower salaries for unskilled workers, the change in composition of

employment didn't favour unskilled workers either. Considering job losses between 1993 and 2001, in all the manufacturing sectors semi and unskilled workers were worst hit by retrenchments. To have a visible effect, globalisation needs to address unequal distribution either by growth in general or directly through employment and higher wages, especially of unskilled workers.

To be fair, however, the time period under consideration is relative short. Perhaps credit should be given for the fact that export composition has changed and that labour productivity is increasing with openness. Regression results indicate that exports do have a positive effect on employment, but only for highly skilled workers and not semi- and unskilled ones. The period from the early 1990s to 2001 can be seen as a period of much-needed restructuring in the quest for international competitiveness. It is to be hoped that in future these positive spinoffs will be converted into significant economic growth rates and much-needed job creation.

6. POLICY CONSIDERATIONS

There is general agreement that countries should not avoid the globalisation process. Smaller countries have the most to lose from not participating – though not necessarily the most to gain – and they can develop the greatest vulnerability to external shocks if they do participate. The challenge is to find ways to manage the risk introduced by greater openness and to manage it well (Duncan 2000). Lindert and Williamson (2001) agree that the nations that gained most form globalisation are those poor ones that changed their policies to exploit it, while the ones that gained the least did not.

The financial crises in Asia and elsewhere have shown that economic openness is not enough. Though financial openness brings important advantages, opening up an economy needs to be done in an orderly way, and after strengthening domestic financial institutions through enhanced supervision, regulation and transparency, and after increasing macroeconomic stability (Masson 2001). Sound and transparent macroeconomic policies, a stable and rational regulatory and incentive framework, robust financial systems accompanied by effective supervision mechanisms, and good governance are also required to take full advantage of globalisation (Gondwe 2001).

In September 1998 Malaysia introduced selective capital controls to overcome its financial crisis. The capital controls have been directed at containing speculation on the ringgit and at minimising the impact of short-term capital flows on the domestic economy (Yusuf 1999). In February 1999 it modified capital controls by introducing a repatriation levy or an "exit tax" on portfolio capital. There are strong signs that the economy is recovering. Capital controls along with other policy measures seem to be pulling the economy out of recession. Chile and China also introduced capital control measures on the inflow of short term capital and to support the currency (Van Zyl 2002, Cornia and Court 2001:31) with positive effects on employment creation. It is, however, highly unlikely that South Africa will impose any form of capital or exchange rate controls. The South African authorities have indicated that they intend to abolish the remaining exchange controls on residents now that those on non-residents have been removed. They want to liberalise the local foreign exchange market and fully join the global capital market network (Gidlow, 2001).

Schulz (2001) summarises the policy options for poor countries in a global context and starts with "manage trade and capital flows more carefully" and "invest in poor people". Khor (2001:36) goes even further and suggests that the process of import liberalisation should be accompanied by (or preceded by) other factors such as the strengthening of local enterprises and farms, human resource and technological development, as well as the build-up of export capacity and markets.

Globalisation alone will not solve South Africa's economic problems. Together with the opening up of our markets, we need stable macroeconomic conditions and less regulated labour markets in order to attract foreign direct investment. Regarding trade liberalisation the way forward for South Africa is one of adjusting to the requirements of the international arena. Empirical evidence of this study (and others) show that the impact on employment levels didn't mainly come through job losses because of import penetration and lowering of tariffs. There is thus no reason to oppose the further opening up of our markets. The true challenge is to be (come) competitive in the export markets. This study suggests that exports do have a positive impact on employment. However, the demand is for highly skilled workers - in all sectors of manufacturing. Therefore education and training should be a priority. Hopefully the recent focus on skills development will bear fruit in this regard. Our unemployment rate can only be addressed if the skills level of the workforce meets the conditions of the market. And without a vast improvement in employment figures, we cannot attain more acceptable levels of income distribution.

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Annex 1: Trends in manufacturing industry 1993-2001

Total Manufacturing	XS93	XS01	MS93	MS01	Cempl	CHSkil	CSkil	CsemiU	CSperE
Food	9.47	6.34	3.87	3.76	-22.3	-7.61	-11.85	-29.66	25.0
Beverages	1.68	2.26	0.78	0.50	-24.7	-15.51	-21.5	-28.59	45.8
Textiles	2.21	1.56	3.34	2.24	-17.9	3.12	-1.9	-21.55	19.4
Wearing apparel	2.13	1.44	1.12	1.12	6.0	21.27	0.98	6.21	-6.4
Leather and leather products	0.99	0.76	0.61	0.5	-17.5	-36.43	-8.99	-18.1	38.1
Footwear	0.17	0.08	0.80	0.91	-50.5	-42.74	-54.65	-50.38	-9.7
Wood and wood products	1.03	1.60	0.94	0.65	17.9	41.63	42.62	3.42	22.9
Paper and paper products	6.34	4.48	2.69	1.58	-15.3	-15.43	-0.75	-20.92	29.8
Printing, publishing and recorded media	0.38	0.27	2.30	1.24	13.7	26.78	13.92	5.13	6.3
Coke and refined petroleum products	2.01	6.39	0.56	2.05	-35.6	-15.79	-37.97	-40.91	-3.8
Basic chemicals	7.87	7.77	7.20	6.02	-13.3	-9.18	-7.02	-17.53	41.1
Other chemicals and man-made fibres	3.11	3.68	8.37	7.65	-1.6	1.11	8.69	-14.44	21.9
Rubber products	0.59	0.79	1.09	1.06	-21.5	-16.96	-10.36	-25.07	18.8
Plastic products	0.66	0.75	1.54	1.5	22.4	29.41	39.69	16.78	50.2
Glass and glass products	0.48	0.34	0.48	0.41	-29.4	-21.88	-28.07	-30.42	25.9
Non-metallic minerals	1.05	0.86	1.32	1.40	-52.8	-47.75	-51.89	-53.46	41.4
Basic iron and steel products	21.89	12.92	1.73	1.51	-41.0	-25.35	-35.06	-46.09	28.8
Basic non-ferrous metals	9.08	5.61	1.22	1.76	-41.2	-23.05	-33.05	-44.42	33.0
Metal products excluding machinery	2.20	2.33	2.36	2.30	-13.0	4.15	-9.16	-16.23	19.0
Machinery and equipment	4.96	12.17	20.22	19.71	4.1	30.21	5.61	-2.84	5.1
Electrical machinery and apparatus	1.47	1.81	4.39	3.52	4.6	0.52	-18.52	-20.96	41.2
Television, radio and communication equipment	0.68	1.88	4.18	9.40	-7.3	12.67	-8.67	-11.41	27.8
Professional and scientific equipment	0.85	0.88	6.00	4.32	-10.4	8.85	-11.76	-14.42	5.5
Motor vehicles, parts and accessories	7.15	12.89	15.61	17.65	10.1	20.81	8.96	7.62	15.5
Other transport equipment	1.91	1.96	4.07	5.06	-28.1	-21.09	-28.82	-29.7	-1.0
Furniture	0.77	2.47	0.25	0.59	-2.0	11.51	7.36	-5.83	4.7
Other manufacturing	8.88	5.72	2.96	1.59	-21.1	-12.58	-18.52	-20.09	24.8

* Source: Authors calculations from DTI data.

Annex 2: Trading patterns in the South African manufacturing industry (according to factor intensity).

	% X 93	% X 01	% M 93	% M 01	% change 1993-2001				
					Employ	High Skill	Skilled	Semi & un	Sal per Em
Total Manufacturing									
Agricultural resource intensive	*15.83*	*12.40*	*7.08*	*5.38*	*-17.61*	*-8.58*	*-6.90*	*-24.42*	*25.96*
Food	9.47	6.34	3.87	3.76	-22.3	-7.61	-11.85	-29.66	25.0
Beverages	1.68	2.26	0.78	0.50	-24.7	-15.51	-21.5	-28.59	45.8
Leather and leather products	0.99	0.76	0.61	0.5	-17.5	-36.43	-8.99	-18.1	38.0
Wood and wood products	1.03	1.60	0.94	0.65	17.9	41.63	42.62	3.42	22.9
Paper and paper products	6.34	4.48	2.69	1.58	-15.3	-15.43	-0.75	-20.92	29.8
Mineral resource intensive	*12.14*	*12.86*	*3.10*	*5.21*	*-47.58*	*-32.12*	*-43.81*	*-50.49*	*28.76*
Coke and refined petroleum products	2.01	6.39	0.56	2.05	-35.6	-15.79	-37.97	-40.91	-3.8
Non-metallic minerals	1.05	0.86	1.32	1.40	-52.8	-47.75	-51.89	-53.46	41.4
Basic non-ferrous metals	9.08	5.61	1.22	1.76	-41.2	-23.05	-33.05	-44.42	33.0
Unskilled labour intensive	*29.84*	*40.18*	*50.86*	*51.11*	*-0.92*	*16.37*	*5.87*	*-4.81*	*13.0*
Textiles	2.21	1.56	3.34	2.24	-17.9	3.12	-1.9	-21.55	19.4
Wearing apparel	2.13	1.44	1.12	1.12	6.0	21.27	0.98	6.21	-6.4
Footwear	0.17	0.08	0.80	0.91	-50.5	-42.74	-54.65	-50.38	-9.7
Wood and wood products	1.03	1.60	0.94	0.65	17.9	41.63	42.62	3.42	22.9
Plastic products	0.66	0.75	1.54	1.5	22.4	29.41	39.69	16.78	50.2
Glass and glass products	0.48	0.34	0.48	0.41	-29.4	-21.88	-28.07	-30.42	25.9
Machinery and equipment	4.96	12.17	20.22	19.71	4.1	30.21	5.61	-2.84	5.1
Motor vehicles, parts and accessories	7.15	12.89	15.61	17.65	10.1	20.81	8.96	7.62	15.5
Other transport equipment	1.91	1.96	4.07	5.06	-28.1	-21.09	-28.82	-29.7	-1.0
Furniture	0.77	2.47	0.25	0.59	-2.0	11.51	7.36	-5.83	4.7
Other manufacturing	8.88	5.72	2.96	1.59	-21.1	-12.58	-18.52	-20.09	24.8

Technology intensive	*10.19*	*10.46*	*17.59*	*13.86*	*-1.24*	*-1.22*	*-14.93*	*-18.89*	*37.96*
Basic chemicals	7.87	7.77	7.20	6.02	-13.3	-9.18	-7.02	-17.53	41.1
Electrical machinery and apparatus	1.47	1.81	4.39	3.52	4.6	0.52	-18.52	-20.96	41.2
Professional and scientific equipment	0.85	0.88	6.00	4.32	-10.4	8.85	-11.76	-14.42	5.5
Human capital intensive	*32.02*	*24.11*	*21.38*	*24.74*	*-12.32*	*2.21*	*-3.59*	*-20.95*	*18.72*
Paper and paper products	6.34	4.48	2.69	1.58	-15.3	-15.43	-0.75	-20.92	29.8
Printing, publishing and recorded media	0.38	0.27	2.30	1.24	13.7	26.78	13.92	5.13	6.3
Other chemicals and man-made fibres	3.11	3.68	8.37	7.65	-1.6	1.11	8.69	-14.44	21.9
Rubber products	0.59	0.79	1.09	1.06	-21.5	-16.96	-10.36	-25.07	18.8
Basic iron and steel products	21.89	12.92	1.73	1.51	-41.0	-25.35	-35.06	-46.09	28.8
Metal products excluding machinery	2.20	2.33	2.36	2.30	-13.0	4.15	-9.16	-16.23	19.0
Television, radio and communication equipment	0.68	1.88	4.18	9.40	-7.3	12.67	-8.67	-11.41	27.8

Source: Author's calculations from DTI data.

Note: Following Tsikata (1999), exports of manufactures are classified according to their dominant factor input. The classification was developed by Krause and extended by Tyers and Phillips. The DTI data is only available on a more aggregate level than the initial classification, therefore some of the industries appear in more than one of the above categories. The relevant weights in the categories are adjusted accordingly.

Annex 3: Trading patterns in the South African manufacturing industry (according to capital/ labour intensity)

	% X 93	% X 01	% M 93	% M 01	% change 1993-2001				
					Employ	High Skill	Skilled	Semi & un	Sal per Em
Total Manufacturing									
Capital intensive	*52.36*	*43.38*	*24.85*	*22.31*	*-16.48*	*-4.05*	*-7.34*	*-26.29*	*21.36*
Coke and refined petroleum products	2.01	6.39	0.56	2.05	-35.6	-15.79	-37.97	-40.91	-3.8
Beverages	1.68	2.26	0.78	0.50	-24.7	-15.51	-21.5	-28.59	45.8
Paper and paper products	6.34	4.48	2.69	1.58	-15.3	-15.43	-0.75	-20.92	29.8
Printing, publishing and recorded media	0.38	0.27	2.30	1.24	13.7	26.78	13.92	5.13	6.3
Basic chemicals	7.87	7.77	7.20	6.02	-13.3	-9.18	-7.02	-17.53	41.1
Other chemicals and man-made fibres	3.11	3.68	8.37	7.65	-1.6	1.11	8.69	-14.44	21.9
Basic iron and steel products	21.89	12.92	1.73	1.51	-41.0	-25.35	-35.06	-46.09	28.8
Basic non-ferrous metals	9.08	5.61	1.22	1.76	-41.2	-23.05	-33.05	-44.42	33.0
Intermediate capital intensive	*19.58*	*22.05*	*24.87*	*27.87*	*-22.39*	*-4.59*	*-13.43*	*-29.24*	*25.56*
Food	9.47	6.34	3.87	3.76	-22.3	-7.61	-11.85	-29.66	25.0
Non-metallic minerals	1.05	0.86	1.32	1.40	-52.8	-47.75	-51.89	-53.46	41.3
Motor vehicles, parts and accessories	7.15	12.89	15.61	17.65	10.1	20.81	8.96	7.62	15.5
Other transport equipment	1.91	1.96	4.07	5.06	-28.1	-21.09	-28.82	-29.7	-1.0
Labour intensive	*14.1*	*22.51*	*43.60*	*44.46*	*-4.40*	*9.40*	*-3.29*	*-13.39*	*25.45*
Textiles	2.21	1.56	3.34	2.24	-17.9	3.12	-1.9	-21.55	19.4
Rubber products	0.59	0.79	1.09	1.06	-21.5	-16.96	-10.36	-25.07	18.8
Plastic products	0.66	0.75	1.54	1.5	22.4	29.41	39.69	16.78	50.2
Glass and glass products	0.48	0.34	0.48	0.41	-29.4	-21.88	-28.07	-30.42	25.9
Metal products excluding machinery	2.20	2.33	2.36	2.30	-13.0	4.15	-9.16	-16.23	19.0
Machinery and equipment	4.96	12.17	20.22	19.71	4.1	30.21	5.61	-2.84	5.1
Electrical machinery and apparatus	1.47	1.81	4.39	3.52	4.6	0.52	-18.52	-20.96	41.2

Television, radio and communication equipment	0.68	1.88	4.18	9.40	-7.3	12.67	-8.67	-11.41	27.8
Professional and scientific equipment	0.85	0.88	6.00	4.32	-10.4	8.85	-11.76	-14.42	5.5
Ultra labour intensive	*13.97*	*12.07*	*6.68*	*5.36*	*-0.77*	*11.36*	*9.96*	*-4.28*	*4.33*
Wearing apparel	2.13	1.44	1.12	1.12	6.0	21.27	0.98	6.21	-6.4
Leather and leather products	0.99	0.76	0.61	0.5	-17.5	-36.43	-8.99	-18.1	38.0
Footwear	0.17	0.08	0.80	0.91	-50.5	-42.74	-54.65	-50.38	-9.7
Wood and wood products	1.03	1.60	0.94	0.65	17.9	41.63	42.62	3.42	22.9
Furniture	0.77	2.47	0.25	0.59	-2.0	11.51	7.36	-5.83	4.7
Other manufacturing	8.88	5.72	2.96	1.59	-21.1	-12.58	-18.52	-20.09	24.8

Source: Author's calculations from DTI data.
Note: The classification developed by Edwards (2001) was followed.