

THE CASE FOR FAIR TRADE

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While the case for 'free trade' has been put consistently to the public over the years, the case for 'fair trade' is not widely understood. This paper aims to set out the arguments in favour of modifying the trade regime to make it both fairer and better for the environment. Trade issues have been a central part of the globalisation debate. While popular protests have focussed on the spread of corporate power, including the influence of global financial markets, disputes between nations have tended to centre on trade questions. While some environmentalists would argue that, by promoting much higher levels of trade and the associated problems of transport and packaging, globalisation promotes unsustainable development, no-one is demanding an end to trade. The task, therefore, is to modify the rules that govern international trade so that globalisation is more likely to both contribute to sustainable development and protect workers from exploitation.

Free Trade

The traditional case in favour of free trade is based on what economists call the 'theory of comparative advantage'. Put simply, the theory says that everyone will be better off if countries specialise in producing and exporting the goods and services that they can produce comparatively more efficiently. Goods and services in which a country does not specialise are then imported. Two countries can benefit from trading with each other even if one country can produce everything more efficiently, because it is better for each country to specialise in what it can produce relatively more efficiently.

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A number of strong assumptions about how the world works must hold for this theory to work in practice. These conditions include:

- For both countries to benefit there must be 'perfect competition',
 that is, a large number of buyers and a large number of sellers. In
 fact, world trade is dominated by large corporations that can often
 manipulate markets to suit their interests.
- There is no unemployment in either country. When there is unemployment, it may be better to protect against some imports even if it means consumers pay more for those goods because resources that would otherwise be idle are put to use.
- Production of goods does not involve pollution or other costs that
 are not reflected in the prices of the imports and exports. Free
 markets are 'efficient' only when market prices reflect all of the
 costs of production, including the costs imposed on the environment.

None of these conditions hold in practice, so the core theoretical economic argument for 'free trade' is seriously weakened; yet the theory of comparative advantage remains the basis for those advocating further 'liberalisation' of the world trading system. This does not mean that trade is bad; it does mean that a strong economic case can be made for restrictions on certain types of trade and promotion of certain activities contrary to the rules of 'free trade'.

The case for trade liberalisation has been backed up by the results of economic modeling studies, such as those using the ORANI/MONASH model by the former Industry Commission. But even though these models are built on a worldview that embodies the assumptions of free trade, the results show that the economic benefits of bringing down tariff barriers are small (Hart 1992; Productivity Commission 2000). Moreover, the costs of structural adjustment and environmental damage due to the freeing of trade are generally left out of the models.



Trade in Practice

Trade between nations takes place within a set of rules and institutions that have been developed since 1945 by agreement between the governments of the world. The trade rules are defined in the General Agreement on Tariffs and Trade (the GATT) and administered and enforced by the World Trade Organization (WTO).

In practice, there is no such thing as free trade. The rules and institutions that govern trade can be designed to protect human rights and the environment, or to ignore them. The existing trade rules already embody a number of constraints on trade. For example, it is legal under the trade rules for a country to discriminate against goods produced using prison labour, even though goods produced using prison labour are likely to be cheaper for the benefit of consumers. However, the existing system is strongly biased in favour of free trade so that narrow efficiency considerations are almost always given precedence. As a result, producers in countries that permit sweat shops, suppression of trade unions, child labour and dangerous and polluting production processes can often undercut competitors that must abide by better standards.

What then is the alternative of fair trade? 'Fair trade' has become a general catchery covering a number of disparate issues and demands, so it is important to separate two sets of arguments in favour of 'fair trade'. The first focuses on the differences between countries in environmental standards, labour standards and human rights, and the way that 'free trade' may see these standards weakened. The second focuses on the promotion of domestic firms through various forms of 'industry policy'. From this latter perspective, fair trade is a necessary corollary of effective policies for industry development. We consider each of these arguments for fair trade in turn.

Environmental standards

Advocates of fair trade argue that free trade encourages (or at least sanctions) environmentally destructive activities. 'Fair trade' policies would involve changes to the international trade rules to allow countries

to discriminate against products made by firms that fail to meet minimum acceptable environmental standards. Defining these acceptable standards is not as controversial as critics claim, and does not necessarily imply imposition of 'Western standards' on developing countries.

The international trade rules already permit nations to ban imports of products that fail to meet certain standards. For example, the Agreement on the Application of Sanitary and Phytosanitary Measures permits countries to ban imports of plants and animals that might carry pests or diseases, i.e. quarantine measures. More generally, Article XX of the GATT allows exceptions to trade rules for certain measures with environmental objectives. Under the GATT rules it is legal for countries to ban imports of some products that contravene safety rules, such as cars that are not fitted with catalytic converters (Leveson-Gower 1997). However, with these few exceptions, the GATT rules prevent countries from discriminating against imports of 'like products' so that goods produced using environmentally damaging process (such as indiscriminate logging or fish caught by dynamiting coral reefs) cannot be banned. This was established in the famous Tuna-Dolphin case. 1

The Tuna-Dolphin dispute between the US and Mexico led to two successive GATT dispute panels that have been the subject of considerable controversy. US laws have ensured that US fishing fleets reduce the risks of killing dolphins by using better fishing methods. The Marine Mammals Protection Act also prohibits the import of tuna from countries where the level of dolphin deaths associated with tuna fishing is significantly higher than in the US. This prohibition was the cause of the dispute before the GATT. The US attempted to restrict imports of yellow fin tuna caught by Mexican fishing boats because too many dolphins were being killed in the process. Mexico challenged the US under the GATT rules. Although a GATT panel gave a ruling in 1991, Mexico reached a deal with the US and dropped the case without it being formally adopted by the GATT. The European Union then brought a separate case, which ensured that the GATT reached a formal decision in 1994.

Much has been written on this issue. A good overview can be found on the WTO website at www.wto.org/english/thewto_e/whatis_e/tif_e/bey5_e.htm

In both cases the US argued unsuccessfully that their prohibition was consistent with GATT exceptions for environmental purposes, but the GATT ruled that Mexican and US tuna are 'like products', regardless of the level of harm caused to dolphins, and that US import restrictions were illegal. The reasoning behind the decisions was that:

If the US arguments were accepted, then any country could ban imports of a product from another country merely because the exporting country has different environmental, health and social policies from its own. This would create a virtually open-ended route for any country to apply trade restrictions unilaterally and to do so not just to enforce its own laws domestically, but to impose its own standards on other countries.2

The advocates of fair trade argue that such an outcome could be desirable if reached by international consensus. A change in GATT rules that permitted discrimination against goods produced using unacceptable methods of production, including unsustainable and polluting processes, would bring about a major improvement in environmental standards around the world. Very often, developing countries have legislation outlawing damaging environmental practices (and exploitation of labour) but have great difficulty enforcing it. Members of the WTO would need to agree on the types of production processes that are unacceptable. Such a change would be no more 'protectionist' than opposition to trade in goods produced by prison labour.

As long as a broad consensus could be reached among major trading nations, it would be a relatively simple matter to amend the trade rules to allow nations to restrict imports from countries that do not meet basic environmental standards.

Eco-dumping

It is not always true that higher environmental standards mean that it costs more to produce goods. In a review the OECD concluded:

WTO, see footnote 1.

There is no clear evidence that high or relatively high environmental standards have had a systematic negative impact on competitiveness of firms, industries or economies ... To the extent that environmental policies encourage better utilisation of a country's resources, that country's overall long term competitiveness may actually be improved (OECD 1999).

However, in some cases a cost advantage can be obtained by lax environmental standards. For instance, at present it is cheaper to produce paper using chlorine bleaching rather than cleaner methods of bleaching. But chlorine discharges can cause severe damage to the environment. Similarly, reducing greenhouse gas emissions may involve higher energy costs, which is why wealthy nations that refuse to ratify the Kyoto Protocol may well face trade restrictions from those that comply (Loose, 2000). Such a violation of 'free trade' would be quite proper if we are serious about sustainable development.

A fundamental problem is that, while environmental costs are real (people fall ill and die from some forms of pollution), they are often not reflected in the market prices of products. If these 'external costs' are not reflected in prices, then the country in question is effectively subsidising production by not imposing adequate environmental standards. This gives rise to a phenomenon known as 'eco-dumping'.

By permitting environmental subsidies a country can gain an unfair advantage in the international marketplace. International trade rules already prevent certain types of unfair pricing practices, such as 'dumping'. Dumping refers to the situation in which a company sells products on foreign markets at less than the cost of production, thereby driving out domestic producers. Countries are allowed to protect themselves from dumping by applying 'countervailing duties', that is, tariffs set at levels to bring the prices of dumped imports up to their normal market prices.

The supporters of 'free trade' generally support measures to eliminate dumping (because it is anti-competitive) and they always oppose the use of export subsidies because they too are anti-competitive. 'Free trade' requires all exporters to pay all of their costs of production (at the margin). Environmental damage is a cost of production - for example, in some countries mining companies have to pay for the costs of land rehabilitation - yet supporters of free trade do not support measures that would force exporters to pay for all of those costs. Why? What is the economic difference between an explicit financial subsidy and an implicit subsidy arising from the fact that someone else (whose health is affected by pollution, say) is 'paying' the costs? Why do internal costs count but external costs do not? The welfare effects are the same.

Eco-dumping via unpriced environmental subsidies is a type of unfair pricing. Similarly, violation of workers rights and sub-standard labour conditions can be thought of as types of subsidy. At present, trade rules prevent countries from taking any measures to prevent these types of dumping. While no one is arguing that all countries should have the same environmental and workplace standards, those countries that have decided to adopt higher standards should not be undermined by exports from those with unacceptably low standards.

This is especially true if transnational corporations go in search of locations with low standards in order to avoid higher standards elsewhere. There is a danger of a 'race to the bottom' in environmental and labour standards as governments come under pressure to defer the introduction of tighter standards or even water down existing ones. Thus, rather than representing a return to the 'bad old days' of protectionism, fair trade can be a modern way of promoting sustainability and human rights.

Labour Standards and Human Rights

Just as it would be feasible to change the trade rules to permit 'countervailing measures' against countries that gain a cost advantage from unacceptable environmental standards, so the rules could be changed to prevent producers benefiting from exploitative labour practices or violations of human rights. The International Labor Office (ILO) defines minimum acceptable standards, but for the most part they are not reflected in the trade rules. The preamble to the ILO's Constitution states that "the failure of any nation to adopt humane

conditions of labour is an obstacle in the way of other nations which desire to improve the conditions in their own countries".³

Like most developed countries, Australia is a member of the ILO and is therefore obliged to ensure the following fundamental rights exist:

- freedom of association and the effective recognition of the right to collectively bargain;
- the elimination of all forms of forced or compulsory labour;
- the effective abolition of child labour; and
- the elimination of discrimination in respect to employment and occupation.

There is little doubt that labour input costs could be cut by banning trade unions, permitting compulsory and child labour and allowing discrimination by gender or race in employment. This is how autocratic regimes often win the political support of local capitalists and attract investment by foreign capital. However, the absence of these workers' rights in any one country creates difficulties for all other countries who seek to uphold them. Trade can be fair only when all trading countries are required to meet the minimum standards for labour rights.

The implementation of 'fair trade' policies that ensure that all trading countries meet minimum conditions for the treatment of labour can, as with environmental protection, act as a powerful tool to raise the conditions of all workers up to an internationally acceptable minimum. The expansion of 'free trade' on the other hand, with its lack of concern with such issues, places pressure on all countries to reduce the rights of workers to the lowest common denominator.

By preventing firms from benefiting from sub-standard practices, changing the trade rules to allow bans on imports that do not meet core standards would make international trade a mechanism for a general improvement in world labour and environmental standards. By contrast, the existing system puts pressure on governments to reduce their standards in order for domestic firms to remain 'competitive'. We

See www.ilo.org/public/english/about/iloconst.htm#pre

frequently hear business groups arguing that Australia cannot afford proposed restrictions on pollution such as greenhouse gas emissions or improvements in working conditions such as shorter hours because it would reduce their 'competitiveness' against countries that have lower standards. They often threaten to move their operations to those countries giving rise to pressures for a for a 'race to the bottom'. What is needed is a system that applies pressure to achieve 'safe minimum standards' for all workers.

This could be achieved quite easily by changes to the GATT/WTO rules. Some groups, noting that Uruguay Round of trade negotiations emphasised protection of private property rights, have argued strongly for the insertion of a 'social clause' into the GATT rules. The International Confederation of Free Trade Unions supports a social clause that would require immediate adoption by all parties of minimum labour standards as laid down by the ILO, including the right to associate, the right to organise and bargain collectively, equal employment opportunity and non-discrimination, prohibition of forced labour and prohibition of child labour (Collingsworth, 1998). Provision for these basic rights would be followed over time by rules defining specific conditions of employment and wages. The enforcement mechanism proposed may be to require compliance with the social clause as a condition for participating in the trading agreement. Alternatively, the burden of compliance could be imposed on private companies in the form of loss of market access. This approach is applied under existing US laws that impose conditions on US corporations operating abroad.

The social clause was subject to intense debate at the 1996 Singapore meeting of the WTO. While the USA and France were especially interested in pursuing the social clause, some developing and developed countries objected to the linking of trade liberalisation and labour standards, fearing that labour standards may be used for protectionist purposes (Leary, 1997).

Putting these arguments about environmental standards, eco-dumping, labour and human rights together provides the basis for a strong critique of what 'free trade' means in practice. This is the first set of arguments for 'fair trade'.

Industry Policy

The second general argument for fair trade concerns the role of national policies to promote the development of local firms and industries. Advocates of 'strategic trade policy' argue that various forms of government intervention can be used to support the development of new industries. In practice this is what governments have been doing for years, although not all forms of industry support can be justified.

Industry policy sometimes involves protective measures against foreign imports, including tariffs, but also includes measures to promote exports. In these circumstances, the case for 'fair trade' depends on where the import competition comes from. If an advanced country is attempting to protect old industries against firms in developing countries that can produce more cheaply simply because wages are lower then long-term protection is hard to justify. In those circumstances it may be better for governments to focus on providing assistance to ease the burden on workers resulting from structural economic change.

On the other hand, import competition might be coming from companies in other wealthy countries. In fact, most trade today takes the form of intra-industry trade and even intra-company trade. Big corporations in other rich countries may be in a position to exert global market dominance and prevent new competitors emerging even though the newcomers might be able to produce the same or a better product more cheaply. In these circumstances, 'free trade' plays into the hands of big corporations already in the market.

Existing players may also be receiving support from their home governments, allowing them to undercut potential competitors. Sometimes it takes several years to build up new industries to the point where they can compete effectively. Governments have often taken measures to reserve home markets for emerging domestic industry.

It is pertinent here to recall that this strategy was pursued by the East Asian nations that produced the 'Asian miracle'. Countries like Japan, South Korea and Taiwan did not have free trade (and still don't). Instead, they aggressively pursued export markets while protecting local markets and providing financial and other support to local firms. The strategy was

very successful. For many years, the World Bank claimed that the success of Asia's 'little tigers' was proof of the enormous benefits of free trade. But the evidence to the contrary was overwhelming and, in a landmark report in 1994, the Bank was forced to concede that pervasive government intervention was an essential part of the industrialisation process that made these countries wealthy (Fishlow et al. 1994). In the 1950s, the forerunner of the World Bank advised South Korea to specialise in what it was good at – rice and silk production. That was the traditional 'comparative advantage' view. The Government ignored the advice.

While strategic trade policy focuses on the relationship between market structure, market power and the evolution of industry, 'new growth theory' challenges directly the causative process assumed by neoclassical trade theorists, i.e. that freer trade leads to more trade, and that more trade leads to more growth. New growth theory argues that in the modern world economy growth is better explained by factors internal to economies rather than the way they intersect with other economies, hence its alternative name of 'endogenous growth theory' (Romer, 1998; Porter, 1990; Cortright, 2001). Rather than focussing on trade as a trigger for greater mobilisation of capital and labour, governments should emphasise policies that foster the development of human capital and innovation. Trade dependency may lock developing countries into industrial structures based on unskilled labour and natural resource endowments, and see the higher-level knowledge that drives growth monopolised by large foreign corporations.

Once it is accepted that knowledge and know-how are more important in the modern economy than physical capital and raw labour power then, instead of sitting back and hoping that trade liberalisation will set off a growth process, governments should concentrate on promoting education, training, innovation and the ability of local firms to commercialise technologies. This is a broad strategy that is relevant both to developed and developing countries and avoids the zero-sum character of other approaches. Such a strategy demands not only investment in institutions that over time build and promote human capital, but regulatory systems that help to keep the benefits of knowledge and technological innovation at home.

Conclusion

Despite claims that free trade is in the best interests of developing countries, the stagnation of living standards across large parts of the developing world suggests that 'free trade' is not fulfilling the promises of prosperity for the poor. The trading system could be used as a device to ratchet up the working conditions and rights of the poor, as well as to protect them from the worst effects of environmental degradation.

The case for changing the GATT rules to promote fair trade is strong. It is widely accepted that the prices at which goods and services are traded internationally should reflect their costs of production. It is an artifice to include in these costs only those that appear in the ledgers of the producing companies and exclude those that are borne by others. Giving privileged place to those costs that are monetised in markets reflects a preoccupation with economics text books in place of real circumstances. The better text books give due weight to the importance of having market prices that reflect social and environmental costs anyway.

While the process of reaching international agreement on trade liberalisation has been long and tortuous, the resulting system provides the legal and institutional structure for fair trade. Within the existing framework it would be relatively easy to insert clauses tying adherence to environmental and labour standards to participation in the trading regime. As we have seen, in several instances such as quarantine restrictions and limits on goods produced by prison labour, this is already the case. It is difficult to understand how the line between these restrictions and others proposed in this paper was drawn and why it cannot be redrawn. Resistance to moving the line appears to be due to nothing more than the inertia of historical precedent. Yet social preferences across the world have changed radically since the 1950s, and there is widespread support for tighter enforcement of labour and environmental standards. Instead of remaining stuck in a post-war time warp, the world trade rules should evolve to reflect global opinion.

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SOLIDARITY VERSUS SECTIONALISM: THE SOCIAL TARIFF DEBATE

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A central feature of the Australian Manufacturing Workers Union's (AMWU) campaign for "fair trade, not free trade" launched in 1999 has been the proposal for the Australian Government to introduce what the union calls "social tariffs", a financial impost on imports sourced from countries whose governments fail to adhere to the core labour standards. These core labour standards match the baseline ILO Conventions - freedom of association, the right to organise and collectively bargain, the right to be free from discrimination, and the outlawing of child and slave labour (Free Labour World, 1996). This proposal has formed an important feature of the union's political strategy, as evident in its initiatives at the 2000 ALP and ACTU conferences, its political lobbying, and its mass work in the form of rallies and publications.

There are two elements to the AMWU's campaign for social tariffs. One is solidaristic and focuses on lifting the conditions of workers in developing countries. The AMWU national secretary, Doug Cameron, the leading figure in the campaign for social tariffs, argues that "Free trade without social values means accepting child labour in Pakistan and Brazil, slave labour in Burma, and utterly oppressive labour conditions in China and Indonesia" (AMWU, 2000a). In a union newsletter, the union leadership alerts members to the fact that that "[w]orkers in Indonesia,

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Cambodia, China and other South East Asian countries are faced with horrendous working conditions and pay rates as low as US\$30 per month" (AMWU, 2000b). On this logic, the purpose of the social tariff is:

... to compensate for lack of commitment to social goals in respect of worker rights, environment protection, worker health and safety, social welfare and civil rights. Where countries meet minimum standards or work towards meeting them, there would be no tariff or a progressive reduction in the level of tariff as the case may require. The proceeds of a tariff could be diverted to a range of much needed humanitarian or development aid programs in the countries from whom the tariff is nominally collected. (AMWU, 2000a)

The demand for social tariffs in this context therefore appears internationalist in its orientation, aimed at the common struggle of workers around the world to live and work in decent conditions.

There is, however, a second element underpinning the AMWU's demand for the imposition of social tariffs, and that is the protection of Australian manufacturing industry and, it is suggested as a consequence, Australian manufacturing jobs. Since the mid-1970s, Australian manufacturing industry has experienced steady reductions in tariff protection, a process which accelerated in the mid-1980s. Australian manufacturing has simultaneously experienced a long-term rise in import penetration (Bell, 1997: 243). These two factors, in combination with the exploitative conditions prevalent in many developing countries, appear to many to be sufficient to explain the waves of factory closures that have plagued Australian manufacturing since the 1970s. The AMWU, for example, argues that "the relationship between the effects of trade liberalisation on the Australian labour market and job insecurity is undeniable" (AMWU, 2000c: 9). On this reading of Australian industrial trends, Australian factory workers have been the victim of imports from low-wage developing economies flooding into "our" markets, and also of Australian companies relocating to developing countries to take advantage of cheap labour. Here the logic of the union's campaign is not solidaristic but sectional, focusing on the national interests of one section of the international working class or rather, as we shall see later, one section of the international capitalist class.

In terms of campaigning at a mass level, it is the sectional not the solidaristic element that is the more important element of the AMWU's demand for "fair trade" and social tariffs. This is demonstrated by the constant elision that is evident in the AMWU's publications from a focus on imports from countries with abusive labour conditions to imports from all and any countries with low wages and, indeed, at times to imports from any source regardless of its wage levels. In this sense, there is a direct connection between the demand for fair trade and the tariff campaigns run by the union's predecessor, the Australian Metal Workers Union, in the 1970s and early 1980s. The AMWU is, for example, currently campaigning under the slogan - "Make it here or jobs disappear" and argues that tariffs on manufacturing imports from all sources should be lifted from five to ten per cent (AMWU, n.d.). Members are asked to contact the union office if they "spot an import project" and to be alert to "imported plant and equipment being used on your job? your company losing contracts to overseas firms? your company not being allowed to tender for work on major projects? or imminent job losses because of manufacturing work going off-shore" (AMWU, 2000a).

While in practice the two are inseparable, I propose in this article to critically examine the AMWU's campaign for social tariffs under two headings, the economic and the political. In relation to the economic questions, I focus on the basic assumption that underlies the AMWU's case for social tariffs: that job losses in the Australian manufacturing sector have been due to two factors: (i) imports from low-wage developing economies and (ii) factory relocations from Australia to such economies. Using data predominantly sourced from the Australian Bureau of Statistics, but also the Industry Commission and a variety of secondary sources, I argue that these have not been the most important factors, nor for most sectors have they been even particularly significant contributors to job losses. This analysis forms the bulk of this paper. In the latter part of the paper, I shift focus to the political element of the campaign for social tariffs, and suggest that social tariffs are a classic example of wedge politics (Bond, 2000). Despite being pitched as a method by which workers in the West might lend a hand to fellow workers in impoverished countries, the social tariff splits these natural allies and instead drives workers both North and South into the arms of their mutual exploiters, the governments and employers, who are the only ones to prosper from these divisions.

The Economics of Social Tariffs

Overview

Let us start by making the strongest case for social tariffs in relation to job losses in Australia. First, there is no doubt that declines in tariff protection have coincided with sharp reductions in employment in particular areas of manufacturing (Conlon, 1999: 208). In some cases, there appears to be clear linkage between tariff reductions, factory relocation and job losses in Australia. The TCF sector is the best example of such a linkage, with widespread factory closures and relocation of production to Fiji and Vietnam (Industry Commission, 1997: xxxi). The same process appears evident in other sectors as well. In November 2000, South Pacific Tyres, the Australian joint venture operation owned by Pacific Dunlop and Goodyear, announced its decision to sack 495 workers at its factory in Melbourne in favour of import sourcing from China (Courier Mail, 16 November 2000).

The argument connecting increased imports with reduced employment opportunities for manufacturing workers has impeccable credentials in neo-classical economic theory. The Hecksher-Ohlin factor price equilibrium theorem suggests that under conditions of free trade, demand for unskilled labour in countries where wages for such workers are high, will steadily fall. In countries with weak unions, such as the United States, falling demand will be evident in reduced real wages for unskilled workers; in the case of countries with stronger unions or state mechanisms which establish wage floors, such as Western Europe (and, historically, Australia), the burden of adjustment is borne by jobs. If

Effective rates of protection for Australian manufacturing fell from 21% in 1983 to 14% in 1991-92 to 6% in 1996-97 (Conlon, 1999: 206-7), with particularly dramatic declines in the 1990s in the case of TCF (from 56% at the beginning of the decade to 15% at the end) and in motor vehicles and parts (from 48% to 19% over the same period) (Conlon, 1999: 207).

there are significant impediments to free trade, the Hecksher-Ohlin model still applies, as free movement of capital allows employers in high-wage Western countries to close down factories and shift operations overseas.

In the debate that has raged in academic circles for 10 years, some writers, such as Wood (1995), attribute the entire decline in relative wages of unskilled workers in the United States to increased manufacturing imports from less developed economies. Wood's arguments find support from writers such as Greider (1998), whose book One World, Ready or Not, has done much to bring these issues to mass audiences. Similarly, Reich's The Work of Nations (1991) holds that, given the abundant supply of unskilled labour and the increasing mobility of capital on an international scale, the conditions of the unskilled in high wage countries such as the United States will inevitably be driven down by increased trade with developing economies. Given the author's later status as President Clinton's Labor Secretary, Reich's work has also been highly influential. It is now commonly accepted that international trade is a significant contributor to the declining fortunes of American unskilled male workers, the US business magazine Business Week (2000) claiming that approximately one million American workers lose their jobs every year as a result of imports and factories shifting overseas. Likewise in Australia, Argy's (1998: 144) argument that free trade "will tend to squeeze us out of labour-intensive industries (because of competition from developing countries in Asia and elsewhere)" is a widely-held belief. Gaston (1998: 128) argues that detailed econometric modelling reveals "a large and significant [negative] impact" of imports on employment in Australia in the 1980s and early 1990s (even though import and employment trends reveals "no obvious connection" (Gaston, 1998:125).

These arguments also receive support indirectly from writers who have sought to understand global reorganisation of circuits of production under way since the 1970s, whether under the name of globalisation, the new international division of labour (Frobel et al, 1980), or new international systems of production (United Nations Council on Trade and Development (UNCTAD), 2000). In its World Investment Report for 2000, UNCTAD pointed out that in the last two decades of the 20th century:

- gross product associated with international production rose from 5 per cent of global GDP to 10 per cent;
- foreign affiliate sales worldwide rose from US\$3 trillion to US\$14 trillion; and
- the ratio of world foreign direct investment (FDI) stock to world GDP rose from 5 per cent to 16 per cent (UNCTAD, 2000: xv-xvi).
- According to UNCTAD (2000: 3), these trends are giving rise to "deep integration" of the world economy, involving "a cohesive global production system with specialised activities located by TNCs in different countries linked by tight, long-lasting bonds". The location of specialised activities by TNCs is, according to UNCTAD (2000: 9) decided "according to their relative cost and logistic advantages". And,

[w]ith barriers to investment, trade and information falling, it makes economic sense - indeed, there is increased competitive pressure to do so - for TNCs to place any activity (or segment of an activity) wherever it is most economically performed - as long as efficiency, control and responsiveness remain the same. Growing competition and increasing familiarity with different locations should therefore lead inexorably to more deep integration. (UNCTAD, 2000: 9-10).

In many respects, UNCTAD's "deep integration" echoes Frobel et al's 1980 arguments about a "new international division of labour" emerging, driven by the movement of capital by TNCs from advanced capitalist countries to less developed ones in search of high profits from the exploitation of cheap labour, land, and raw materials.² The key features of Frobel et al's NIDL are as follows:

² And, in turn, builds on a long-standing current in Marxist literature (eg Lenin, 1916, Luxemburg, 1972; Bukharin, 1972).

- stagnation of manufacturing in the industrialised core arising as a result of falling profitability, "under-consumption", and militant trade union activity;
- a shift of production to third world and newly industrialising countries to take advantage of lower wages and docile or absent trade unions;
- fragmentation of production processes into their component parts, the best example being the "World Car" concept widely forecast in the 1970s;
- the further cheapening of production by more extensive division of labour and dilution of skilled labour in the new production sites;
- the use of overseas production sites as a method of meeting markets in Western countries, leading to the further closure of factories and mass redundancies of manufacturing workers; and
- the retention of high skill, managerial and head office functions in the core countries.

Frobel et al's arguments have been the source of much debate, and continue to receive support (although see Fagan and Webber, 1999, for a recent critical review).

The Australian Evidence

This brief review of some of the more significant literature demonstrates an impressive range of work supporting the argument that imports are contributing significantly to job losses and factory flight in high-wage economies. How do these arguments stand up in relation to the data for Australia? In what follows I deal with each of the two main arguments in turn.

(i) Are Imports From Low-Wage Countries a Significant Contributor to Manufacturing Job Losses in Australia?

In Appendix 1 I summarise the relevant data on international trade and employment in seven sectors of the manufacturing industry, in the period from 1990-91 to 1999-2000. Data are given for imports from all sources and also from what the ABS calls "developing countries", an extremely broad category including not just the low-wage economies of India and China, but also the medium-wage economies of Singapore, South Korea, Malaysia, Hong Kong, Taiwan, most Central and Eastern European countries, and the Southern Cone economies of Latin America (Chile and Argentina). Three measures of import penetration are also provided: import penetration from all sources; import penetration from developing countries; and developing country imports as a share of all imports.

Analysis of this data reveals some, perhaps surprising, findings. First, import penetration of Australian manufacturing markets is less than is often supposed: in four of the seven sectors, import penetration from all sources in 1999-2000 was less than one-quarter of the domestic market, the exceptions being textiles, clothing, footwear and leather (TCF), petroleum, coal and chemical (PC&C), and machinery and equipment. In those four sectors, import penetration by developing countries accounted for a still smaller fraction (seven per cent or less) of domestic markets. In two of the three sectors experiencing high import penetration (PC&C and machinery and equipment), where in each case 60 per cent of the Australian market was serviced by imports, the majority of these goods were imported from high-wage developed economies. In only one of the seven sectors did imports from developing economies account for a substantial portion of the Australian market, and that was TCF, where one-third of the market is sourced from such imports. In 1998-99, only one developing country appeared in the top seven source countries of Australian merchandise imports, this being China, which accounted for 6.8 per cent of the total in 1998-99 (ABS Cat. No. 5422.0, June quarter 2000, p.67).

If import penetration of domestic markets is lower than often suspected, what of the trend? Here it is clear that major change is under way. The value of imports rose rapidly over the 1990s in every sector, commonly doubling or more in nominal terms, a much faster rate of increase than experienced by the domestic market. The result was growing import penetration in every sector. The share of imports accounted for by developing countries and their penetration of the domestic market, also rose strongly, although commonly from a very low base.

What has been the impact of these trends on employment in Australian manufacturing? One way of answering this question is to establish whether any close relationship exists between trends in import penetration and employment. This is done in Appendix 2 which lists Pearson's correlation coefficients and tests of significance for the three measures of import penetration and employment by sector.³ The results demonstrate that in four of the seven sectors, including one with very high import penetration (PC&C), there was no correlation between employment and any measure of import penetration. In two sectors, however, there were negative and highly significant correlations between employment and import penetration, namely TCF and non-metallic minerals. In the seventh sector, metal products, there were negative correlations, but these were only significant at the 90 per cent or 95 per cent levels of confidence.

If no association exists between import penetration and employment in four sectors, it is not likely that imports from developing countries had a substantial effect on employment in these sectors during the 1990s. What of the three other sectors, where an association does exist? Two factors should make us hesitate before drawing the conclusion that developing country imports were the cause of retrenchments in these three sectors. First, we have found only an association, not causation. It is plausible that the flow of causation could be from employment loss to imports. Second, it is as well to compare the scale of the job loss with the loss of domestic market share to imports in the three sectors concerned. In two sectors, metal products and non-metallic mineral manufactures, the growth of market share held by imports from developing countries over the course of the 1990s (2.9% and 4.1% respectively) was far less than the fall in employment (13.4% and 15.5% respectively), suggesting that other factors may well have been more significant in explaining the latter. Only in the TCF sector, where the correlation is very high and highly significant, is there a strong prima facie case for the argument that loss of jobs (30.1%) was due to the loss of market share to imports from developing countries (16.7%). Clearly this sector merits further attention later in this article.

The relatively small sample size and number of observations means that the following findings on significance of results must be regarded as only tentative.

The second method that might be used to shed light on the relationship between imports and employment is to establish whether imports have been "taking" sales from companies operating in Australia. As Fahrer and Pease (1994: 201) have argued "It is correct to conclude that imports have led to decreases in employment only if there have been no offsetting increases from domestic demand and/or exports". Clearly, if domestic sales and exports by companies operating in Australia have risen over the relevant time frame, it is difficult to make a case that rising imports have in their own right led to loss of employment in such companies. Appendix 1, which provides data on domestic turnover in constant prices, indicates that the former was clearly the case in the 1990s: in every sector except TCF, turnover was either stable or rose by anything up to one-quarter. Crucial to maintaining or increasing overall turnover was the growth of exports which grew in real terms by anything from 50 to 130 per cent. Domestic sales (constant prices), by contrast, fell in the TCF, PC&C and metal products sectors, were stable in

machinery and equipment, and evidently grew only in the remaining

three sectors.

In effect, the growth of imports was matched by a simultaneous growth of exports, which "compensated" for the loss of domestic sales experienced by producers in some of the sectors under review. Indeed, the relationship between import penetration and export intensity was very strong and positive in every sector, with correlation coefficients upwards of 0.84 in six of seven sectors. This relationship suggests the further internationalisation of Australian manufacturing that has been under way since the early 1980s and the growth of intra-company trade resulting from the formation of international business operations of various kinds. Regardless of the compositional change in turnover, however, there is no evidence that imports have reduced the market for producers operating in Australia. This second test, therefore, confirms the finding of the first, that rising import penetration is not likely in its own right to have caused loss of employment, an argument that appears to rest for its credibility on only one sector, TCF.

(ii) Are Jobs Being Lost in Australia Due to Production Being Shifted Overseas to Low-Wage Sweatshops?

Let us now turn to the second major argument underpinning the case for social tariffs, that Australian workers are losing jobs due to runaway factories. Dealing with this issue is rather more complicated than estimating the impact of imports on jobs because of the relative scarcity of data. The Australian Bureau of Statistics does not publish time-series data on FDI by country by sector. In what follows, therefore, I present historical data on aggregate FDI and the most recent published (1995) data on FDI by sector. The lack of data therefore means that the analysis that follows must be regarded as provisional.

Focussing on Australian direct investment overseas (as opposed to portfolio investment, defined as holdings of ten per cent or less), it is evident that business operating in Australia are increasing their stock of manufacturing investments overseas, Australian FDI in manufacturing doubling from \$27.7 billion in 1991 to \$59.5 billion in 1999 (Figure 1).

If this increase were dictated by the needs of local manufacturers moving to low-wage nations, it would be consistent with the social tariff argument. However, there are several complicating factors to this assumption. First, the stock of Australian manufacturing FDI is equivalent to only 60 per cent of manufacturing FDI in Australia, which rose over the same period from \$56.5bn to \$98.8bn (Figure 1). Indeed, Australian industry is, on a world scale, a major beneficiary of flows of FDI: in 1995, Australia was the fourth largest recipient of FDI (all sectors) in the world (after USA, UK and France) (Bryan and Rafferty, 1999: 154). Clearly, the aggregate flow of outbound and inward direct investment in manufacturing cannot explain job losses in Australian industry.



FOREIGN ASSETS

FOREIGN UABILITIES

20000

Figure 1: Stocks of FDI in Manufacturing Industry (\$m), 1991-92 to 1998-99

Source: Australian Bureau of Statistics, Balance of Payments and International Investment Position, Cat. No. 5363.0, 1998-99.

The second complicating factor is that, just as most manufactured imports are not sourced from low-wage countries, little Australian FDI overseas ends up in such destinations. In 1995, only eight per cent of all manufacturing investment was located in the ASEAN member states. This may be contrasted with the 40.8 per cent located in the United Kingdom, 32.2 per cent in the United States, and 10.8 per cent in New Zealand (Industry Commission, 1996a: 332). Disaggregating the data on manufacturing FDI, we find that more than one-half of all such stocks in 1995 were in the printing, publishing and recorded media sectors, nearly all of which was in the United Kingdom (70%) and United States (25%). Similarly, although more than one-half (54%) of all investment in the ASEAN states was in manufacturing, the vast majority (87.2%) of this was in petroleum, coal, chemicals, and associated products, not in the production of labour-intensive manufacturing goods such as sporting apparel (Industry Commission, 1996a: 30). Indeed, only 3.7 per cent of the stock of Australian FDI in manufacturing overseas (1.3% of all FDI) in 1994 was in TCF (Industry Commission, 1996a:328-29).

Table 1: Stocks of Foreign Assets and Liabilities, by Sector, June 1999 (\$m)

SECTOR	Foreign Assets	Total (%)	Foreign Liabilities
Finance & insurance	175260	64.34	265823
Manufacturing	59509	21.85	98774
Mining	10938	4.02	49021
Wholesale trade	3729	1.37	23366
Transport & storage	2791	1.02	13136
Property & business services	2391	0.88	21305
Electricity, gas & water	1537	0.56	13154
Retail trade	1192	0.44	7402
Other industries	10551	3.87	95429
Unallocated	4489	1.65	39926
TOTAL	272388	100.00	627337

Source: Australian Bureau of Statistics, Balance of Payments & International Investment Position, Cat. No. 5363.0, 1998-99.

NB: Includes both direct & portfolio investment.

These data are confirmed by the more recent but less specific data on Australian investment overseas. These tell us, first, that manufacturing investment (portfolio and direct combined) overseas is only a small proportion of total investment overseas - with the finance and insurance sector absorbing the lion's share, two-thirds of the total, or three times as much as all manufacturing combined (Table 1). Narrowing our review just to FDI, 70 per cent of the total stock of Australian FDI (all sectors) was distributed between the United States (37.7% of the total) and the United Kingdom (31.6%) in June 1999, with New Zealand accounting for a further nine per cent (Table 2). The combined ASEAN nations accounted for less than four per cent of Australian FDI, with China a further half of one per cent, and South Korea and Taiwan combined with less than 0.2 per cent. Furthermore, contrary to popular belief, the proportion of FDI (all sectors) in low-wage countries has tended to decline over time. The ASEAN share, for example, fell from 28 per cent in 1979-80 to six per cent in 1994-95 (Industry Commission, 1996a: 24), and to four per cent in 1999.

Table 2: Stocks of Australian Direct Investment Overseas, by Destination, June 1999 (\$m)

	Sm	Total (%)
USA	34021	37.69
UK	28527	31.60
New Zealand	8157	9.04
Hong Kong	2963	3.28
Holland	2575	2.85
PNG	2212	2.45
Malaysia	841	0.93
Indonesia	834	0.92
Singapore	556	0.62
Thailand	501	0.55
China	414	0.46
Japan	268	0.30
Taiwan	83	0.09
South Korea	50	0.06
Other countries	8271	9.16
FOTAL	90273	100.00
DECD	76250	84.47
EU	32255	35.73
ASEAN	3402	3.77

Source: Australian Bureau of Statistics International Investment Position, Australia, Supplementary Country Statistics, Cat. No. 5352.0, 1998-99.

Although not definitive, these findings suggest in aggregate that very little Australian FDI is being devoted to the establishment of factories in low-wage countries. It would appear that the increasing international integration of Australian capitalism is not primarily focused on the issue of cheap labour.

This finding does not of course invalidate the argument made by supporters of social tariffs that factories are closed in Australia and shifted to low-wage countries, even if such movements do not account for a significant element of total investment flows. There is certainly evidence that employers in the TCF sector have pursued such a strategy for some years (Industry Commission, 1997: 55). However, although we do not have comprehensive evidence on this score, it still appears that, outside the manufacture of simple items such as sportswear, Australian business is reluctant to move overseas, particularly to low-wage countries, as a method of servicing the Australian market. In episodes of production rationalisation, most firms do not take the step of shifting production to low-wage countries, but instead seek to centralise operations to the one Australian location. Thus, in late 2000 Email whitegoods consolidated its manufacturing operations of Chef stoves not to a low-wage country such as Indonesia but to South Australia, with the loss of 640 jobs in Victoria (The Australian, 30 October 2000). In May 2001, Arnott's announced its decision to close its Melbourne operations with the loss of 600 jobs in favour of expanding existing operations in Sydney and Brisbane (The Australian, 3 May 2001).

Where production is not consolidated or shifted to another location within Australia, New Zealand is another favoured destination, offering as it does cheaper labour within a familiar legal and political environment (Industry Commission, 1996a: 174-78). One recent example of such a shift is Heinz, which closed its Dandenong factory and consolidated operations at its Wattie's facility in New Zealand (Australian Financial Review, 25 May 2001). Although labour costs are lower in New Zealand than Australia, there is no intention by supporters of social tariffs for penalties to be levied on imports from across the Tasman. Attention within the fair trade debate remains resolutely on countries with "workers earning US\$30 a month" (AMWU, 2000b), despite the virtual irrelevance of such countries as sources of Australian imports or as destinations for footloose Australian factories.

In summary, although Australian manufacturing FDI has increased rapidly in recent years, it is equivalent to not much more than one-half of the stock of manufacturing FDI in Australia itself, it is directed mostly to high-wage advanced OECD countries, and in most cases it is not going

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into factory relocations to replace production previously undertaken in Australia. This evidence, together with that relating to imports from low-wage countries, suggests that, outside the TCF sector at least, the economic case for social tariffs does not rest on firm foundations.

Other Evidence

In many ways, these findings should not be surprising as they are consistent with other literature on this topic, both in Australia and overseas. Although many academic and institutional critics of the argument that increased international trade contributes significantly to rising job insecurity and income inequality in high-wage countries do so only to laud the virtues of neo-liberalism (eg Krugman and Lawrence, 1993; Lawrence and Slaughter, 1993; Sachs and Shatz, 1994, World Bank, 1995; Slaughter and Swagel, 1997), others who are not so convinced of the merits of unfettered corporate freedom, have provided equally sharp criticisms. Freeman (1995), for example, has provided a useful critical summary of the argument, suggesting that while trade has had some impact on the demand for low-skilled workers in Europe (manifest in high unemployment) and the United States (manifest in falling real wages), the effect is relatively small when compared to other factors. Gordon (1996: 194) concurs, arguing that trade deficits with lowwage economies account for only 20 per cent of job losses in the United States.

In some cases there appears to be superficial support for the argument that international trade with low-wage countries has a significant impact on labour demand for unskilled workers in the West. A report by the ILO (1997: 16) provides a useful graph relating the percentage change in the low-wage share of manufacturing employment and the percentage change in imports from developing countries as a share of total imports in 18 OECD countries. The ILO draws the conclusion that increases in the former are associated with increases in the latter, suggesting that international trade with low-wage economies has a depressing effect on job opportunities for unskilled Western manufacturing labour. In fact, if two outliers (Italy and Portugal) are taken out from the analysis, no such relationship appears at all. The low wage share of employment has

dropped in every country but Portugal, just as the share of developing countries as a source of imports has risen in 13 of the 18 OECD countries, but the extent of the fall of the former appears completely unrelated to the growth or decline in the latter. The ILO (1997: 16-17) concludes that perhaps trade between countries of "the North" is more significant in explaining changes to manufacturing employment.

In addition to Fahrer and Pease's work, whose arguments we will return to later. Australian writers have also contributed to the debate. In its review of the issue, the Economic Planning Advisory Council observed that:

For Australia, imports are not predominantly of low-wage goods. On average, Australia's exports tend to go to countries with lower incomes than Australia's, and imports come from countries with higher incomes (EPAC, 1996: 29).

This finding casts doubt on the idea that the relative cost of labour is a significant contributor either to cost disadvantages suffered by Australian manufacturers or the driving force behind trends in imports. We may also puts the issue of the threat to jobs posed by low-wage late-industrialising Asian nations into perspective with the observation that imports of manufactures from developing countries only accounted for two per cent of the GDP of industrialised countries in 1992 (World Bank, 1995: 56).

The literature also does not give much support to the argument for "runaway factories". The overwhelming incentive for Australian FDI is to gain access to overseas markets, particularly high-income overseas markets, not to replace production formerly undertaken within Australia. But why do Australian firms not simply export into such markets from their domestic operations? Could it be that they are enticed overseas by cheap labour? While the relative cost of labour (both wages and on-costs) and regulatory mechanisms surrounding the use of labour can be a significant influence on decisions taken by employers in labour-intensive industries such as TCF (Industry Commission, 1996a: xv), they are overall "a secondary motivation" according to the Industry Commission (1996a: 53). More important reasons for the use of overseas production for overseas sales are issues such as low value-to-weight ratios (for example, products such as bricks and building materials), or the fact that

the relevant products or services are not exportable (examples include construction, energy and financial services). Sometimes firms locate overseas simply to be close to the market, to develop a local image, or to respond quickly to changing market conditions (Industry Commission, 1996a: xiv-xv). In none of these cases can the overseas investment be regarded as having a negative impact on employment within Australia.

Overall, the Industry Commission (1996a: 354) study found that marginally more manufacturing companies increased their employment in Australia as a result of offshore investment than decreased it (approximately one-quarter in both cases), both being heavily outweighed by the one in two companies which made no changes to employment. These effects were not felt equally by all employees, however. Semi-skilled and skilled production workers tended to experience loss of employment, as against research and development, engineering, sales and management staff who enjoyed increased employment opportunities. Nonetheless, the proportion of companies reporting declines in the former (15% and 13% respectively) was far less than the proportion reporting no change for either (61%) (Industry Commission, 1996a: 354).

We may conclude from this review that FDI in factories in low-wage countries is not an important factor in the overall dynamic of Australian capitalism, and that where FDI in manufacturing does take place, it need not necessarily be driven by a desire to exploit sweated labour or, indeed, have any effect on employment prospects for Australian workers. The exception, however, may be TCF.

Australian business derives many advantages from on-shore production. These advantages include not just lower transport costs and avoidance of import/export delays but also the availability of technical expertise, close contacts with (and financial support from) domestic governments, security of and familiarity with the Australian legal framework, security of copyright and patents, higher labour productivity, and availability of skilled labour. Even in industries with relatively simple manufacturing processes, such as TCF, companies venturing overseas such as Sara Lee Corporation (Stubbies brand) and Kalacraft (Just Jeans, Target, Rip Curl, Stussy and Mambo) (Weller, 2000: 80) can be caught out by political instability, the recent case of the virtual shut-down of the predominantly

Australian-owned Fijian clothing industry in the aftermath of the Speight coup in mid-2000 being a case in point.

The literature also does not lend much support for the notion that Australian workers are victims of broader trends towards a "new international division of labour" in which multinational companies are simply shutting up shop in Western manufacturing, attracted by labour docility and cheap wages in the developing countries. Summarising the recent literature on this topic, Fagan and Webber (1999) point out that most investment is concentrated in the developed countries, that much manufacturing investment that did take place in the newly-industrialising countries (NICs) was for servicing local markets not for export back to the developed home country, that multinationals indigenous to the NICS were beginning to emerge by the 1990s which in turn began to invest in lower wage countries such as Thailand and Vietnam, and that decentralised but integrated production systems embodied in the "World Car" concept of the 1970s are relatively restricted.4

These broad trends are also supported by UNCTAD (2000) which, despite its belief in the "deep integration" of the world economy and the emergence of "new international systems of production", also notes that these trends are highly uneven:

- the developed economies accounted for three-quarters (74%) of all global FDI flows in 1999. The United States (US\$275bn) and the European Union (US\$305bn) each received one-third of the world total, and both received significantly more than the entire developing world (US\$207bn) (p.283);
- eighty per cent of all world FDI is accounted for by cross-border mergers and acquisitions (p.xx), 90 per cent of the value of which involve companies in the developed economies; and
- the share of developing countries in global FDI fell from 38 per cent in 1997 to 24 per centin 1999 (p.xvi).

See also Gordon (1988) and Henderson (1989) for useful critical reviews of the NIDL thesis.

So What is the Cause of Job Loss in Australian Industry?

The argument that job losses in Australian business are due to large-scale importing and factory relocation to low-wage countries rests on the idea that wages are the key competitive advantage. In essence, it presumes that business success relies on ratcheting up absolute surplus value, by lengthening the working day and increasing intensity of work effort, as may be realised by production in low-wage sweated labour conditions. We have seen from the evidence above that, for the most part, Australian business does not rely on this strategy. Relative surplus value, increasing labour productivity by means of technological upgrading, remains the road to success for Australian capitalism. The limited extent of production relocation to low-wage countries is explained by the fact that wages are a secondary concern when compared to the large markets needed to amortise the large fixed cost investments in upgraded production techniques.

It is the pursuit of relative surplus value in the context of global over-production in the manufacturing sector that is at least as important a contributor to loss of jobs as imports, if not more so. Thus Lloyd (1985) has concluded that "For employment, the long-term problem is one of substitution of capital for labour, rather than the substitution of imported for thomestic supplies" (cited in Lowe and Dwyer, 1994: 229). Fagan and Webber (1999: 41) also argue that, as against factory relocations to low wage producers, "continued organisational and technological change within those [OECD] countries following the end of the long boom was the more important feature of the 1980s". Thus, manufacturing productivity rose by 44.5 per cent between 1981-82 and 1992-93, but employment fell by 23.2 per cent (Fahrer and Pease, 1994: 200). Fahrer and Pease (1994: 203) calculate that "Productivity effects have been the

dominant force behind the decline of manufacturing employment, in aggregate accounting for more than 100 per cent of the jobs lost between 1981/82 and 1991/92" in eleven of the twelve manufacturing sectors that they studied.

Productivity growth continued to be an important factor contributing to loss of employment in the 1990s. Appendix 1 uses turnover per person employed (constant prices) as a proxy for productivity, and highlights the rise in productivity in the last decade, ranging from just over six per cent in petroleum, coal and chemicals to 34.8 per cent in non-metallic minerals. Appendix 2 gives the relevant correlation coefficients for employment and productivity for each of the seven sectors. Possibly coincidentally, the three sectors where employment and import penetration were moderately or strongly negatively correlated were also the three where employment was moderately or strongly negative correlated with productivity - TCF, non-metallic minerals, and metal products. Adding further to the complexity of the issue, Table 2 also indicates that employment was negatively and moderately or strongly negatively correlated with export intensity in the same three sectors.

Why are import penetration, export intensity and productivity all negatively associated with employment in the same three sectors but not the other four? Possibly this is simply a statistical artefact arising out of the small sample size. Possibly also, there may be some degree of interdependence between the three independent variables. Wood (1995) for example, suggests that imports may have an impact on employment through the mechanism of "defensive innovation", that is pre-emptive technological and organisational restructuring in order to forestall large scale imports from low-wage economies. Take away this threat, for example by the imposition by the Australian Government of social tariffs on countries with exploitative labour conditions, and jobs will be secured. However, competition compels innovation, no matter what its source. If imports from low-wage countries are locked out by the use of social tariffs, competition will still manifest itself between domestic rivals, with the same predictable results for workers. A third possibility is that a fourth, as yet unknown factor, is driving the relationship between import penetration, export intensity, productivity and employment. Unfortunately, the small sample size and limited number of observations.

means that no meaningful statistical examination of this issue is possible and further analytical progress awaits the construction of a larger data set.

Finally, we turn to the TCF sector, where it appears from the discussion so far that imports from developing countries and factory relocation are strongly associated with loss of jobs in Australia. Fahrer and Pease (1994) confirm that "low-wage imports accounted for about one-third of the 28,000 jobs lost, including about one-half of 6,000 jobs lost in footwear" during the 1980s and early 1990s (Fahrer and Pease, 1994: 203). This phenomenon was certainly not unique to Australia, with TCF imports from low-wage countries rising in the 1980s and 1990s in all major Western economies following the relocation of factories, first to Japan, South Korea, Taiwan and Hong Kong, more recently to China, Thailand, and Indonesia (Industry Commission, 1997: 65-67). Employment in TCF in the Western economies fell across the board, with the exception of Italy (Industry Commission, 1997: 77). Recent work by Weller (2000) confirms the significance of a "border nation production strategy" amongst Australian TCF manufacturers in the 1990s as they established operations in Fiji and New Zealand, assisted by the Federal Government's Imports Credit Scheme (which exempted exporting companies from paying duty on imports, until its cancellation in July 2000).

Even in the case of TCF, however, it is possible that productivity is still the dominant factor, not imports or runaway factories. Fahrer and Pease (1994: 203) conclude from their analysis that "Despite this large import effect [cited above], productivity improvements accounted for about two-thirds of the fall in employment in this sector" between 1981/82 and 1991/92, with productivity rising by 53.6 per cent in textiles and 28.7 per cent in clothing and footwear, employment falling by 33.4 and 31.3 per cent respectively (Fahrer and Pease, 1994: 200). Similarly, data from the 1990s presented in Table 1 suggest that at best increased import penetration was one of three factors associated with reduction in employment, the other two being rising productivity and export intensity.

Other information that suggests caution in attributing TCF job losses to imports or runaway factories is the fact that the TCF sector has been losing jobs since the 1960s regardless of either the tariff regime or trends

in import share (Industry Commission, 1997: 87). Indeed, many more jobs were lost in the period of stable or rising tariffs (from the 1960s, when employment in TCF peaked at 180,000, to 1985, when employment had fallen to 117,000) than in the period 1985 to 1995, one in which tariffs fell steadily but in which employment decreased by only a further 14,000 (Industry Commission, 1997: 87). Furthermore, much of the "job loss" in this sector has simply been the result of a shift from factory production to home-working operations in the western suburbs of Sydney and Melbourne, a trend that is not captured by ABS data (Industry Commission, 1997: 120-22; Fagan and Webber, 1999: 72).

The Politics of Social Tariffs

The economic case for social tariffs rests on two widely accepted but, I hope to have shown, rather weak, if not untenable, assumptions. The political case, however, is not just weak but positively counterproductive. The main drawback of social tariffs is that they elevate labour movement sectionalism at the expense of solidarity and consequently weaken the forces capable of mounting a sustained defence of jobs. Not only are trade unions split into various camps within Australia by the campaign for social tariffs, but by the same token so are they lined up with sections of their own employers and governments. Let us examine this issue in a little more detail.

The basic premise of the AMWU's social tariff argument is that, once secure from the threat of imports from low-wage countries, business and unions can use the breathing space to stabilise the fortunes of Australian manufacturing. The mechanism favoured by the AMWU for such stabilisation is the industry plan of the type established by the Hawke Government in the 1980s (AMWU, 2000d). The purpose of such plans is to bring unions, industry and government together to achieve planned rather than unorganised change, and improvements to skills and technology rather than a low-skill, low-wage path to competitiveness. To this end, the Victorian branch of the AMWU calls for a Victorian Manufacturing Council composed of business, government and union leaders, and an agenda of "workplace change and innovation" (AMWU, 1999).

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The AMWU leadership's grievance, ultimately, is not with free trade or capitalism more generally, but the conditions under which Australian business is forced to compete and the fact that "politicians on all sides have let our manufacturing industries and our country down" (AMWU, 2000b). The union's goal is to fix up Australian manufacturing, and to promote "workplace change and innovation", not least because "We understand that for Australian workers to live well, the companies they work for must produce and trade well" (AMWU, 2000e). Indeed, while criticising economic rationalism, and while demanding that "multinational corporations pay their fair share of tax" (AMWU, 2000e), the AMWU national secretary also calls for corporate taxes on Australian manufacturing industry to be cut, comparing Ireland's corporate tax rate of 10 per cent favourably with Australia's rate of 36 per cent (AMWU, n.d.). Further, where social tariffs are not used for "much-needed humanitarian or development aid", the national secretary suggests "they could be used to provide export credits to Australian producers, thereby stimulating Australian exports" (AMWU, 2000a).

The problem with this agenda is that "workplace change and innovation" of the type advocated by the AMWU is not an alternative to job loss but often its harbinger. This has already been demonstrated by the outcome of the industry plans that were in place in the 1980s. The chase for international competitiveness that was central to such plans only worsened job security for Australian workers. The Steel Industry Plan is a case in point. Between 1983 and 1997, labour productivity under the Plan tripled in BHP's three main mills in Newcastle, Port Kembla and Whyalla, while employment halved (Fagan and Webber, 1999: 116; Bell, 1997: 221). BHP's competitiveness rose still higher with the closure of the company's Newcastle operations and the hiving-off of steel under the One Steel structure. Similar outcomes were evident wherever industry plans were implemented by the Hawke Government, including passenger vehicles, heavy engineering, and shipbuilding. As Cameron reported to a conference of employers in August 1998:

As a union, we have explored the various human resource management theories allegedly designed to improve a company's competitiveness, and as the theory goes, improve our members' job security.

We have sought real partnerships and been betrayed; we have promoted co-operation, not capitulation; we have benchmarked; we have introduced teams; we have talked endlessly about training and competency with almost no results for the bulk of our members. We have innovated; we have been flexible; we have restructured the Award; we have simplified the Award; we have strived for "best practice in manufacturing workplaces"; we have bargained and bargained and bargained.

None of this has been enough for government or employers. ... We have been betrayed by employers who have not adopted a progressive agenda. The workers have been abandoned to market forces and the latest fads, such as downsizing, contracting out or re-engineering (cited in Long, 2000).

This assessment makes clear that stabilising and reviving profitability in the manufacturing industry need have very little to do with stabilising and reviving employment in the industry. Despite apparently absorbing this lesson of the Accord years, the leadership of the AMWU now wants to return to this same strategy of "innovation" if given an opportunity. That union leaders wish to persist with a strategy which they themselves acknowledge as discredited illustrates the dead-end in which they find themselves. Because they are committed to boosting international competitiveness of Australian industry, supporters of social tariffs are forced back into the arms of business, and this includes an implicit acceptance that this will mean further job losses. Thus, there is no attempt by the AMWU national leadership to make its support for social tariffs conditional on a commitment by employers to maintain employment or to refrain from retrenchments or outsourcing. On the part of the AMWU, therefore, the demand for social tariffs is merely a figleaf behind which is entrenched the continuation of policies that not only failed to prevent job losses in the 1980s but actively assisted in them.

The problem that the union's leadership faces, however, is that there is little evidence that big business is interested in being drawn back into any kind of industry consultative committees which characterised the Accord. In the early 1980s, unions organised one-half of the workforce. Union coverage has now halved, and the success of companies such as Rio Tinto in breaking union power has demonstrated that the concessions

to consultation with unions that were made in the 1980s may no longer be necessary.

Just as the AMWU ties its fortunes to those of business in arguing for social tariffs, so it divides the ranks of the labour movement, both domestically and overseas. It is in this context that the sectional and the solidaristic motives of the social tariff campaign come into open conflict, with the latter clearly coming out second best. Thus in March 2000, the AMWU organised a rally of 3,000 workers in Brisbane under the banner "Make it here or jobs disappear", at which demands were made on the Queensland State Government to ensure increased Queensland content in public-sector infrastructure projects. The branch newsletter declared that "Imports threaten Queensland jobs", and exhorted members to "Buy Oueensland made: protect your fellow workers' jobs" (AMWU, 2000b). Eight months later, the AMWU organised another rally of 3,000 workers, this time in Newcastle, at which a petition was circulated calling on the NSW Government to force "project developers to utilise NSW-made and/or Australian-made material" and "to stop the bleeding of NSW jobs to other states and overseas" (O'Brien, 2000; AMWU, 2000d).

This retreat to State parochialism leaves unions powerless to confront the bidding wars that have become increasingly common between State governments who have offered major financial incentives to attract business to their respective States (Industry Commission, 1996b: 16-22). Recent cases include Chef stoves, where several million dollars from the South Australian Government was sufficient to convince Email to close its operations in Melbourne rather than Adelaide. Other examples include Virgin Airlines, Ford, BHP, Motorola and Holden Engines (*The Australian*, 13 December 2001), all of whom were actively (and secretly) courted with millions, if not tens of millions, of dollars in State government subsidies and tax breaks. Such subsidies must be added to the massive direct assistance already received by manufacturing industry from State (\$925 million in 1994-95) and Commonwealth (\$1.5 billion in 2000-2001) budgets (Conlon, 1999: 210; *The Australian*, 21 December 2001).

The campaign for social tariffs sees sectionalism triumph over solidarity at the international level as well. The lament by the AMWU that Australia is losing "national sovereignty" in relation to economic matters

and its call for governments to "look after Australian jobs" (AMWU, 2000b) and its proud boast that it is "standing up for Australian values" (AMWU, 2000a) steers the union towards economic Harisonism. The union's leaders firmly denounce attempts by their opponents to tie them to right-wing nationalism, claiming that they are as motivated by concern for the fate of workers labouring on low wages under repressive labour regimes as they are of the jobs of manufacturing workers in Australia. This disclaimer does not convince, however. The over-riding sectional logic of the AMWU campaign for social tariffs, despite the solidaristic arguments that are also made in their defence, is clear from the fact that the blame for exploitative labour conditions is always on governments of developing countries and multinationals, never on the activities of one's "own" companies, including, we must infer, one's "own" multinationals. After all, as we have seen, the main aim of the AMWU is to boost the fortunes of one's "own" capitalists, not expose them to hostile criticism.

Summary and Conclusion

In this article, I have demonstrated that the social tariff argument is based on weak economic grounds. More important, however, is the divisive political impact of such a campaign. The two strategies of solidarity and sectionalism are fundamentally counter-posed. There is a tradition of genuine international workers solidarity, in which Australian unions have been both the initiator and direct beneficiary. Examples include Indian, American and Japanese dock workers refusing to work on ships that had been loaded by Australian scab labour during the 1998 waterfront dispute. Other examples include Australian hotel staff refusing to serve members of the touring Springbok rugby team in 1971, or Australian dock workers black-banning ships destined for Indonesia in the late 1940s or Vietnam in the late 1960s. The black-banning by Australian transport workers of Garuda aircraft during the 1999 Timor crisis was only the most recent of a long line of such actions.

All of these were examples of genuine solidarity by one group of workers to assist in the struggles by workers and the oppressed in other countries for their freedom and rights to organise. None of them hinged on any direct benefit accruing to the unions taking the action, other than making a genuine contribution to working-class solidarity across national borders. All involved collective and direct action by the workers involved, all were welcomed by the workers in whose name the action was taken and, by the same token, all were bitterly opposed by workers' compatriot employers and governments, which in most cases rushed to unleash punitive labour legislation against the workers concerned.

The campaign for social tariffs is counterposed to this tradition of solidarity on every score. It requires no direct action by Australian workers, other than occasional attendance at rallies, it is not widely welcomed by the workers in the low-wage countries on whose behalf the campaign is supposedly waged, it is supported by and gives comfort to important sections of employers which are at the same time retrenching thousands of workers in the name of export competitiveness and rationalisation, and the main basis on which workers support is sought is simply one of job protection. The campaign is therefore a diversion from the kind of action that will genuinely save jobs for Australian workers and which would make a contribution to halting the worldwide chase for "national competitiveness" from which workers all over the world are currently suffering.



Appendix 1: International Trade, Turnover and Employment in Manufacturing Industry, 1990-91 to 1999-2000

Food Beverages and Tobacco

	Food Beverages and Tobacco										
	1990-	1991-	1992-	1993-	1994-	1995-	1996-	1997-	1998-		Chan
	91	92	93	94	95	96	97	98	99	2000	(%
Employment (*000)	169.2	162.3	162.8	164.2	166.6	162.7	163.3	168.6	167.4	164.8	_
Exports (Sm)	9688	9961	11931	13473	13084	15919	17071	17092	16743	18372	89
imports from all					i				Ì		
iources (Sm)	2312	2449	2684	2945	3344	3397		4035	4382	4662	101
Turnover (Sm)	34997	35574	37489	40039	41763	_	1	47965		51237	46
Domestic market	27621	28062	28242	29511	32023	30725	31142	34908	37745	37527	35
(Sm)											
Import penetration											
(%)	8.37	8.73	9.50	9.98	10.44	11.06	11.20	11.56	11.61	12.42	
Imports from DCs	801	866	916	1022	1178	1223	1235	1437	1581	1744	117
(\$m)											
Import penetration	2.90	3.09	3.24	3.46	3.68	3.98	3.97	4.12	4.19	4.65	60
(DCs) (%)											
DC imports as %	34.65	35.36	34.13	34.70	35.23	36.00	35.41	35.61	36.08	37.41	8
total									İ		
Producer price	104.00	105.50	107.80	108.70	113.00	113.70	114.80	116.20	115.30	123.80	19
index (mfg.)		i	ļ								l
Turnover (Sm)	33651	33719	34776	36834	36958	38036	38959	41278	43457	41387	2.3
(constant \$)									ļ		
Domestic producer	24336	24278	23709	24440	25380	24035	24089	26569	28936	26547	. 9
domestic sales (\$m)	ļ										
(constant \$)	i				:						
Exports (\$m)	9315	9442	11068	12395	11579	14001	14870	14709	14521	14840	5
(constant \$)								}	·		
Exports as %	27.68	28.00	31.83	33.65	31.33	36.81	38.17	35.63	33.42	.35.86	2
turnover											
Turnover per	206.84	219.19	230.28	243.84	250.68	265.81	273.88	284.49	299.32	310.90	5
person employed											
(\$000)											
Turnover per	198.88	207.76	213.61	224.33	221.84	233.78	238.57	244.83	259.60	251.13	2
person]						'		
(\$000)(constant \$)				<u> </u>	<u></u>	<u> </u>	<u> </u>	L		L	<u> </u>

Textiles, Clothing, Footwear and Leather

	,	,		, , , , , , , , , , , , , , , , , , , 		,	T			,	
	1990	1991-	1992	1993	1994	1995	1996-	1997-	1998-	1999-	Change
	91	92	93	94	95	96	97	98	99	2000	(%)
Employment ('000)	91	82.4	79.3	75.8	80.1	77.2	75.5	75.7	67.7	63.6	
Exports (\$m)	539	631	815	1061	1335	1402	1464	1556	1470	1462	171.2
Imports from all	3280	3657	4119	4384	4830	4863	4910	5653	5975	6436	96.2
sources (\$m)									1	İ	
Turnover (Sm)	9787	9367	9081	9396	9758	9845	9785	9907	9824	9161	-6.4
Domestic market	12528	12393	12385	12719	13253	13306	13231	14004	14329	14135	12.8
(5 m)	Ì			ļ							
Import penetration	26.18	29.51	33.26	34.47	36.44	36.55	37.11	40.37	41.70	45.53	73.9
(%)								•			
Imports from DCs	2070	2364	2701	2923	3209	3212	3317	3917	4204	4693	126.7
(\$m)											
Import penetration	16.52	19.08	21.81	22.98	24.21	24.14	25.07	27.97	29.34	33.20	100.9
(DCs) (%)	ļ	İ			-						
DC imports as %	63.11	64.64	65.57	66.67	66.44	66.05	67.56	69.29	70.36	72.92	15.5
total											
Producer price	104.00	105.50	107.80	108.70	113.00	113.70	114.80	116.20	115.30	123.80	19.0
index (mfg.)											
Turnover (\$m)	9411	8879	8424	8644	8635	8659	8524	8526	8520	7400	-21.4
(constant \$)											
Domestic producer	8892	8281	7668	7668	7454	7426	7248	7187	7245	6219	-30.1
domestic sales (Sm)						i				ĺ	
(constant \$)											
Exports (Sm)	518	598	756	976	1181	1233	1275	1339	1275	1181	127.9
(constant S)											
Exports as %	5.51	6.74	8.97	11.29	13.68	14.24	14.96	15.71	14.96	15.96	189.8
turnover								· [.		
Turnover per	107.55	113.68	114.51	123.96	121.82	127.53	129.60	130.87	145.11	144.04	33.9
person employed											
(\$000)	!						·				
Turnover per	103.41	107.75	106.23	114.04	107.81	112.16	112.89	112.63	125.85	116.35	12.5
person											
(\$000)(constant \$)											

Wood and Paper Products

	1990-	1991-	1992-	1993-	1994-	1995-	1996-	1997-	1998-	1999-	Change
	91	92	93	94	95	96	97	98	99	2000	(%)
Employment (*006)	62.4	60.6	60	61.4	66	65.5	61	62	60.4	63.6	1.9
Exports (Sm)	692	726	791	885	1039	1051	1123	1281	1265	1500	116.8
Imports from all	1953	2173	2407	2591	2963	2871	2669	3015	3217	3747	91.9
sources (Sm)											
Turnover (Sm)	9463	9404	10067	10637	11598	11504	11116	11500	12141	13635	44.1
Domestic market	10724	10851	11683	12343	13522	13324	12662	13234	14093	15882	48.1
(\$m)		İ	İ								
Import penetration	18.21	20.03	20.60	20.99	21.91	21.55	21.08	22.78	22.83	23.59	29.5
(%)									Ī		
Imports from DCs	333	409	470	504	553	513	577	679	860	989	197.0
(\$ m)											
Import penetration	3.11	3.77	4.02	4.08	4.09	3.85	4.56	5.13	6.10	6.23	100.5
(DCs) (%)		ļ				ļ	1				
DC imports as %	17.05	18.82	19.53	19.45	18.66	17.87	21.62	22.52	26.73	26.39	54.8
total										122.00	100
Producer price	104.00	105.50	107.80	108.70	113.00	113.70	114.80	116.20	115.30	123.80	19.0
index (mfg.)								2227	10530		21.0
Turnover (\$m)	9099	8914	9339	9786	10264	10118	9683	9897	10530	11014	21.0
(constant \$)						0101	0705	8794	9433	9802	16.2
Domestic producer	8434	8226	8605	8971	9344	9193	8705	8/94	9433	9002	10.2
domestic sales (Sm)											,
(constant S)		688	734	814	919	924	978	1102	1097	1212	82.1
Exports (\$m)	665	088	/ 54	014	717	724	970	1102	1077		
(constant \$)	7.31	7.72	7.86	8.32	8.96	9.14	10.10	11.14	10.42	11.00	50.4
Exports as %	7.51	1.72	7.00	0.52	0.70	/	10.10				
turnover Turnover per	151.65	155.18	167.78	173 24	175.73	175.63	- 182.23	185.48	201.01	214.39	41.4
person employed	131.03	155.10	10,.,0	173.5		•,••					
(\$000)											
Turnover per	145.82	147.09	155.64	159.38	155.51	154.47	158.74	159.62	174.34	173.17	18.8
person]									
(\$000)(constant \$)							<u></u>				<u> </u>
(2000)(contamina)		1									

Petroleum, Coal and Chemical

		т -	1	 -		-					
	199				1	1	-	6 1991	7- 1998	1999	Change
							6 9	7 9	8 9		
Employment (*000	·	-		7	8 92.	1	.1 92.	7 92.	i 95.5	94.6	
Exports (Sm)	1209	7	-	1	1 1391	0 1560	1674	5 1869	7 17731	22259	84.0
Imports from all	824	2 824	5 1048	6 1048	8911	0 1321	3 [418	7 1468	9 16056	20178	
sources (Sm)										i	
Turnover (Sm)	2819	-1 -3.	-	8 2904	6 3012	1 3142	8 3270	3336	2 33335	35957	27.5
Domestic market	2433	8 2390	5 2475	7 2606	1 2789	1 2903	5 3014	8 29354	,	I	
(S m)		1									
Import penetration	33.8	6 34.49	42.3	40.24	41.88	45.5	1 47.0	50.04	50.71	59.56	75.9
(%)	1			Ì							,3,9
Imports from DCs	307:	2848	3714	3285	3589	422	5016	4837	5224	7802	153.7
(Sm)		Ī	ł	ĺ		ļ				, , , ,	133.1
Import penetration	12.63	11.91	15.00	12.61	12.87	14.50	6 16.64	16.48	16.50	23.03	82.3
(DCs) (%)		İ			ļ]	25.05	32,3
DC imports as %	37.31	34.54	35.42	31.33	30.73	32.00	35.36	32.93	32.54	38.67	3.6
totai			ļ	ļ				32.70	, ,,,,,,,,	38.07	٥.د
Producer price	104.00	105.50	107.80	108.70	113.00	113.70	114.80	116.20	115.30	122 90	19.0
index (mfg.)		ĺ		ĺ			111.00	110.20	113.30	120.00	19.0
Turnover (Sm)	27109	26676	26269	26721	26656	27641	28490	28711	28912	29044	7,
(constant \$)	İ							20/(1	20712	29044	7.1
Domestic producer	15477	14844	13238	14328	14346	13916	13903	12620	13533	11065	20.5
domestic sales (\$m)	[i				.57.0	.5,05	12020	13333	11003	-28.5
(constant \$)	i							İ			
Exports (Sm)	11632	11832	13031	12393	12310	13726	14586	16090	15378	17980	E 4 1
(constant \$)		7				0	17000	100901	13378	1/980	54.6
Exports as %	42.91	44.36	49.60	46.38	46.18	49.66	51.20	56.04	53.19	61.90	44.3
turnover					.50	12.00	<i>لاحد</i> . د د	30.04	JJ. 19	01.90	44.3
Turnover per	300.24	310.97	317.47	330.07	327 OS	333 00	352 22	362 24	349.06	,,,,	26.6
person employed			/	-30.07		233.77	JJ2.02	202.44	, 100.K+C	260.10	26.6
(\$000)	ł				ĺ	ĺ		- 1			
Turnover per	288.70	294.76	294,50	303.65	289 42	293 7A	307 32	311.74	302.74	207.00	
person					-57.74	475.74	JU1.33	511.74	304.74	07.02	6.3
(\$000)(constant \$)											
		——————————————————————————————————————			1					. 1	

Non-metallic Mineral

		· · · · · · · · · · · · · · · · · · ·									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Change
	9	1 92	2 9:	3 9.	4 9:	5 9	6 9	7 98	9	9 200	(%)
Employment ('000)	41	39.5	39.	38	3 3	36.	2 36.	8 35.5	34.	3 34.9	-15.5
Exports (Sm)	50	2 626	549	66	6 73:	74	6 71	4 791	73	96:	92.2
Imports from all	95	928	1034	1080	0 1214	118	8 124:	1462	157	9 1915	99.9
sources (Sm)				Ì		İ	ł				
Turnover (\$m)	7729	7673	8333	8634	4 8869	837	8580	8846	983	1 10484	35.6
Domestic market	8185	7975	8818	9048	9348	881.	911	9517	1067	5 11434	39.7
(\$m)									Ì		ĺ
Import penetration	11.70	11.64	14.73	11.94	12.99	13.48	3 13.66	15.36	14.79	16.75	43.1
(%)						İ					
Imports from DCs	220	285	344	383	419	409	422	507	634	777	253.2
(\$ m)						Ì	}				,
Import penetration	2.69	3.57	3.90	4.23	4.48	4.64	4.63	5.33	5.94	6.80	152.8
(DCs) (%)		ĺi				Ì				1	
DC imports as %	22.96	30.71	33.27	35.46	34.51	34.43	33.90	34.68	40.15	40.57	76.7
total		i l				ĺ	İ			Ì	
Producer price	104.00	105.50	107.80	108.70	113.00	113.70	114.80	116.20	115.30	123.80	19.0
index (mfg.)		f									
Turnover (\$m)	7432	7273	7730	7943	7849	7362	7474	7613	8526	8468	14.0
(constant \$)											
Domestic producer	6949	6680	7221	7330	7198	6706	6852	6932	7889	7689	10.6
domestic sales (Sm)			ĺ								
(constant \$)							i i				
Exports (Sm)	483	593	509	613	650	656	622	681	637	779	61.5
(constant \$)											
Exports as %	6.50	8.16	6.59	7.71	8.29	8.91	8.32	8.94	7.48	9.20	41.7
turnover			İ					Í			
Turnover per	187.14	194.25	210.43	225.43	227.41	231.24	233.15	249.18	286.62	300.40	60.5
person employed		Ì									
(\$000)	!										
Turnover per	179.95	184.13	195.20	207.39	201.25	203.38	203.09	214.44	248.58	242.65	34.8
person			İ					ĺ	į		
(\$000)(constant \$)											

Metal Products

• • • • • • • • • • • • • • • • • • • •											
	1990-	1991-	1992-	1993-	1994-	1995-	1996-	1997-	1998-	1999-	Change
	91	92	93	94	95	96	97	98	99	2000	(%)
Employment ('000)	163.7	150.7	148	145.2	150.3	149.5	148.9	150.2	147.2	141.8	-13.4
Exports (\$m)	5186	5236	5644	6021	6775	7525	6855	7950	7656	9441	82.0
Imports from all	2472	2495	2979	3213	3843	3945	3817	4753	4730	4832	95.5
sources (Sm)											
Turnover (\$m)	33607	31794	32368	33306	35349	38077	37659	38166	38726	40595	20.8
Domestic market	30893	29053	29703	30498	32417	34497	34621	34969	35800	35986	16.5
(\$m)							į				
Import penetration	8.00	8.59	10.03	10.54	11.85	11.44	11.03	13.59	13.21	13.43	67.8
(%)				•							
Imports from DCs	591	650	743	801	1012	1072	1056	1427	1459	1724	191.7
(\$m)											
Import penetration	1.91	2.24	2.50	2.63	3.12	3.11	3.05	4.08	4.08	4.79	150. 4
(DCs) (%)			[
DC imports as %	23.91	26.05	24.94	24.93	26.33	27.17	27.67	30.02	30.85	35.68	49.2
total .						1			Į.		
Producer price	104.00	105.50	107.80	108.70	113.00	113,70	114.80	116.20	115.30	123.80	19.0
index (mfg.)											
Turnover (5m)	32314	30136	30026	30640	31282	33489	32804	32845	33587	32791	1.5
(constant \$)	İ										
Domestic producer	27328	25173	24790	25101	25287	26871	26833	26003	26947	25165	-7.9
domestic sales (5m)											Į
(constant S)		!								2/2/	52.9
Exports (Sm)	4987	4963	5236	5539	5996	6618	5971	6842	6640	7626	32.7
(constant \$)								20.02	10.77	23.26	50.7
Exports as %	15.43	16.47	17.44	18.08	19.17	19.76	18.20	20.83	19.77	23.20	1
turnover						054 70	262.01	254.10	262.00	204 20	39.4
Turnover per	205.30	210.98	218.70	229.38	235.19	∠34./U	252.91	234.10	∠03.U8	200.20	1
person employed											
(\$000)			202.00	311.63	200 13	224.01	720.71	210 40	220 17	231.25	17.1
Turnover per	197.40	199.98	202.88	211.02	208.13 	224.01	220.31	∠18.08	220.17	231.23	
person											
(\$000)(constant \$)	l	L	L	l		L	ــــــــــــــــــــــــــــــــــــــ	<u> </u>	<u> </u>	L	

Machinery and Equipment

1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 (%)												
Employment (**\to\$00) 216.7 197.5 194.9 196.1 208.8 209.4 206.9 206.4 195.1 195.6 -9.7 Exports (\$m\$) 4543 5038 6340 7502 8040 9720 10636 11063 10286 11606 155.5 Imports from all sources (\$m\$) 21697 22003 25911 28911 35166 36458 36784 41929 45418 51349 136.7 Turnover (\$m\$) 32028 30413 31355 34930 38019 39658 41277 41732 43417 43784 36.7 Domestic market (\$m\$) 49182 47378 50926 56339 65145 66396 67425 72598 78549 83527 69.8 Import penetration (*%) 44.12 46.44 50.88 51.32 53.98 54.91 54.56 57.76 57.82 61.48 39.4 Imports from DCs (\$m\$) 2377 2852 3936 4838 6052 7181 7717 9477 10605 13230 456.6 Import penetration (DCs) (*%) DC imports as *% 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 total Producer price index (mfg.) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Domestic producer domestic sales (\$m\$) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports (\$m\$) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports (\$m\$) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports (\$m\$) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports \$8* 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover		1990-	1991-	1992-	1993-	1994-	1995-	1996-	1997-	1998-	1999-	Change
Exports (\$m\$)		91	92	93	94	95	96	97	98	99	2000	(%)
Imports from all sources (\$m) 21697 22003 25911 28911 35166 36458 36784 41929 45418 51349 136.7 Turnover (\$m) 32028 30413 31355 34930 38019 39658 41277 41732 43417 43784 36.7 Domestic market (\$m)	Employment (*000)	216.7	197.5	194.9	196.1	208.8	209.4	206.9	206.4	195.1	195.6	-9.7
sources (\$m) 21697 22003 25911 28911 35166 36458 36784 41929 45418 51349 136.7 Turnover (\$m) 32028 30413 31355 34930 38019 39658 41277 41732 43417 43784 36.7 Domestic market (\$m) 49182 47378 50926 56339 65145 66396 67425 72598 78549 83527 69.8 Import penetration (%) 44.12 46.44 50.88 51.32 53.98 54.91 54.56 57.76 57.82 61.48 39.4 Import penetration (\$m) 2377 2852 3936 4838 6052 7181 7717 9477 10605 13230 456.6 Import penetration (\$Costall 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 total 10.400 105.50 107.80 108.70 113.00 113.70 114.80 <th>Exports (Sm)</th> <th>4543</th> <th>5038</th> <th>6340</th> <th>7502</th> <th>8040</th> <th>9720</th> <th>10636</th> <th>11063</th> <th>10286</th> <th>11606</th> <th>155.5</th>	Exports (Sm)	4543	5038	6340	7502	8040	9720	10636	11063	10286	11606	155.5
Turnover (\$m) 32028 30413 31355 34930 38019 39658 41277 41732 43417 43784 36.7 Domestic market (\$m) 49182 47378 50926 56339 65145 66396 67425 72598 78549 83527 69.8 Import penetration (%) 44.12 46.44 50.88 51.32 53.98 54.91 54.56 57.76 57.82 61.48 39.4 Imports from DCs (\$m) 2377 2852 3936 4838 6052 7181 7717 9477 10605 13230 456.6 Import penetration (4.83 6.02 7.73 8.59 9.29 10.82 11.45 13.05 13.50 15.84 227.7 (DCs) (%) DC imports as % 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 total Producer price index (mfg.) Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Domestic producer domestic sales (\$m) (constant \$) Exports (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	Imports from all											
Domestic market (\$m)	sources (\$m)	21697	22003	25911	28911	35166	36458	36784	41929	45418	51349	136.7
CSm 49182 47378 50926 56339 65145 66396 67425 72598 78549 83527 69.8	Turnover (Sm)	32028	30413	31355	34930	38019	39658	41277	41732	43417	43784	36.7
Import penetration (%)	Domestic market											
(%) 44.12 46.44 50.88 51.32 53.98 54.91 54.56 57.76 57.82 61.48 39.4 Imports from DCs (\$m\$) 2377 2852 3936 4838 6052 7181 7717 9477 10605 13230 456.6 Import penetration (\$A.83 6.02 7.73 8.59 9.29 10.82 11.45 13.05 13.50 15.84 227.7 (DCs) (%) DC imports as % 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 total Producer price 104.00 105.50 107.80 108.70 113.00 113.70 114.80 116.20 115.30 123.80 19.0 index (mfg.) Turnover (\$m\$) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Domestic producer domestic sales (\$m\$) (constant \$) Exports (\$m\$) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	(\$m)	49182	47378	50926	56339	65145	66396	67425	72598	78549	83527	69.8
Imports from DCs 2377 2852 3936 4838 6052 7181 7717 9477 10605 13230 456.6 Emport penetration 4.83 6.02 7.73 8.59 9.29 10.82 11.45 13.05 13.50 15.84 227.7 (DCs) (%)	[mport penetration											
(Sm) 2377 2852 3936 4838 6052 7181 7717 9477 10605 13230 456.6 Import penetration (4.83 6.02 7.73 8.59 9.29 10.82 11.45 13.05 13.50 15.84 227.7 (DCs) (%) DC imports as % 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 total Producer price 104.00 105.50 107.80 108.70 113.00 113.70 114.80 116.20 115.30 123.80 19.0 index (mfg.) Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$\$) Domestic producer domestic sales (\$m) (constant \$\$) Exports (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$\$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	(%)	44.12	46.44	50.88	51.32	53.98	54.91	54.56	57.76	57.82	61.48	39.4
Import penetration 4.83 6.02 7.73 8.59 9.29 10.82 11.45 13.05 13.50 15.84 227.7	Imports from DCs											
(DCs) (%) DC imports as % 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 total Producer price 104.00 105.50 107.80 108.70 113.00 113.70 114.80 116.20 115.30 123.80 19.0 index (mfg.) Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Exports (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9	(\$m)	2377	2852	3936	4838	6052	7181	7717	9477	10605	13230	456.6
DC imports as % total 10.96 12.96 15.19 16.73 17.21 19.70 20.98 22.60 23.35 25.76 135.2 Producer price index (mfg.) Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Domestic producer domestic sales (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 Exports (\$m) 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9	Import penetration	4.83	6.02	7.73	8.59	9.29	10.82	11.45	13.05	13.50	15.84	227.7
total Producer price 104.00 105.50 107.80 108.70 113.00 113.70 114.80 116.20 115.30 123.80 19.0 index (mfg.) Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$\$) Domestic producer 26428 24052 23205 25233 26530 26331 26691 26393 28735 25992 -1.6 domestic sales (\$\$m\$) (constant \$\$) Exports (\$\$m\$) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$\$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	(DCs) (%)											
Producer price index (mfg.) 104.00 105.50 107.80 108.70 113.00 113.70 114.80 116.20 115.30 123.80 19.0 Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 Constant \$) Experts (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Experts as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9	DC imports as %	10.96	12.96	15.19	16.73	17.21	19.70	20.98	22.60	23.35	25.76	135.2
index (mfg.) Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Domestic producer domestic sales (\$m) (constant \$) Experts (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	total											
Turnover (\$m) 30796 28827 29086 32134 33645 34880 35956 35914 37656 35367 14.8 (constant \$) Domestic producer domestic sales (\$m) (constant \$) Exports (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	Producer price	104.00	105.50	107.80	108.70	113.00	113.70	114.80	116.20	115.30	123.80	19.0
(constant \$) Domestic producer domestic sales (\$m) (constant \$) Exports (\$m)	index (mfg.)											
Domestic producer domestic sales (Sm) (constant S) 26428 24052 23205 25233 26530 26331 26691 26393 28735 25992 -1.6 Exports (Sm) (constant S) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant S) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover 4368 4775 4368	Turnover (\$m)	30796	28827	29086	32134	33645	34880	35956	35914	37656	35367	14.8
domestic sales (\$m) (constant \$) Exports (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	(constant \$)											
(constant \$) Experts (\$m)	Domestic producer	26428	24052	23205	25233	26530	26331	26691	26393	28735	25992	-1.6
Exports (\$m) 4368 4775 5881 6902 7115 8549 9265 9521 8921 9375 114.6 (constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	domestic sales (Sm)											
(constant \$) Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	(constant \$)											
Exports as % 14.18 16.57 20.22 21.48 21.15 24.51 25.77 26.51 23.69 26.51 86.9 turnover	Exports (Sm)	4368	4775	5881	6902	7115	8549	9265	9521	8921	9375	114.6
turnover	(constant \$)	İ										
	Exports as %	14.18	16.57	20.22	21.48	21.15	24.51	25.77	26.51	23.69	26.51	86.9
Turnover per 147.80 153.99 160.88 178.12 182.08 189.39 199.50 202.19 222.54 223.84 51.5	turnover										-	
	Turnover per	147.80	153.99	160.88	178.12	182.08	189.39	199.50	202.19	222.54	223.84	51.5
person employed	person employed											
(\$000)	(\$000)											
Turnover per 142.11 145.96 149.24 163.87 161.14 166.57 173.78 174.00 193.01 180.81 27.2	Turnover per	142.11	145.96	149.24	163.87	161.14	166.57	173.78	174.00	193.01	180.81	27.2
person												
(\$000)(constant \$)	(\$000)(constant \$)					L,						

Notes:

Turnover is defined as sales in the Australian market by manufacturers located in Australia plus their exports.

Domestic market calculated as turnover minus exports plus imports

Import penetration calculated as imports as a share of domestic market

Turnover (constant \$) and turnover per person employed (constant \$) calculated by deflating turnover and turnover per person employed by the producer price index (mfg.)

Domestic producer domestic sales (constant \$) calculated as turnover minus exports deflated by the producer price index (mfg.)

% change in final column represents aggregate change from 1990-91 to 1999-2000

Sources:

Employment: Australian Bureau of Statistics, Manufacturing Industry, Cat. No. 8221.0 (1994-95 & 1999-2000)

Imports and exports: Australian Bureau of Statistics, International Merchandise Trade, Cat. No. 5422.0, various issues.

Turnover: Australian Bureau of Statistics, Manufacturing Industry, Cat. No. 8221.0 (1994-95 & 1999-2000)

Producer price index (1989-90=100.0): Australian Bureau of Statistics, Producer Price Index, Cat. No. 6427.0, Ausstats time series data.

This appendix summarises the relevant data on international trade and employment in seven sectors of the manufacturing industry, Australian and New Zealand Standard Industrial Classifications 21, 22, 23, 25, 26, 27 and 28, in the period from 1990-1991 to 1999-2000. Employment and turnover data are sourced from the Australian Bureau of Statistics publication *Manufacturing Industry* (Cat. No. 8221.0). Unfortunately for our purposes, international trade data are collated in ABS publication *International Merchandise Trade* (Cat. No. 5422.0) not by ANZSIC but by Standard International Trade Classification (SITC) (Rev3). In order to compile this table, therefore, approximate equivalences were devised to match trade data with figures for employment and turnover. Although such equivalences are not perfect they must suffice for the purposes of this article. The equivalences used were devised by the author as follows:

ANZSIC 21 Food, beverage and tobacco manufacturing = SITC 0 Food and live animals + SITC 1 Beverages and tobacco.

ANZSIC 22 Textile, clothing, footwear and leather manufacturing = SITC 61 Leather, leather manufactures and dressed furskins + SITC 65 Textile yarn, fabrics, made-up articles + SITC 84 Articles of apparel and clothing accessories + SITC 85 Footwear.

ANZSIC 23 Wood and paper processing = SITC 24 Cork and wood + SITC 25 Pulp and waste paper + SITC 63 Cork and wood manufactures + SITC 64 Paper, paperboard, and articles of paper pulp.

ANZSIC 25 Petroleum, coal, chemical = SITC 3 Mineral fuels, lubricants + SITC 5 Chemical and related products.

ANZSIC 26 Non-metallic mineral product manufacturing = SITC 66 Non-metallic mineral manufactures.

ANZSIC 27 Metal products = SITC 67 Iron and steel + SITC 68 Non-ferrous metals + SITC 69 Manufactures of metals nes.

ANZSIC 28 Machinery and equipment manufacturing = SITC 7 Machinery and transport equipment.

No SITC equivalences for ANZSIC 24 Printing, publishing and recording media could be established, with the result that this sector is missing from the analysis.



Appendix 2: Coefficients of Correlation Between Employment Import Penetration, Export Intensity and Turnover in Manufacturing Sectors, 1990-91 to 1999-2000

	Correlation	Significance
Food, beverages & tobacco		
Import penetration (%)	0.065	ns
Import penetration (DCs) (%)	0.062	ns
DC imports as % total	0.024	ns
Exports as % turnover	-0.213	DS
Turnover per person (constant \$)	0.121	ns
Textiles, clothing, footwear & leather		
Import penetration (%)	· -0.940	<.001
Import penetration (DCs) (%)	-0.947	<.001
DC imports as % total	-0.948	<.001
Exports as % turnover	-0.800	<.01
Turnover per person (constant \$)	-0.844	<.01
Wood & paper products		
Import penetration (%)	0.227	ns
Import penetration (DCs) (%)	-0.107	ns
DC imports as % total	-0.243	ns
Exports as % turnover	0.127	D.5
Turnover per person (constant \$)	-0.066	ns
Petroleum, coal and chemical		
Import penetration (%)	0.487	ns
Import penetration (DCs) (%)	0.495	ns
DC'imports as % total	0.267	ns
Exports as % turnover	0.418	ns
Turnover per person (constant \$)	0.050	ns

Appendix 2 (Cont.): Coefficients of Correlation Between Employment Import Penetration, Export Intensity and Turnover in Manufacturing Sectors, 1990-91 to 1999-2000

	Correlation	Significance
Non-metallic minerals		
Import penetration (%)	-0.880	<.001
Import penetration (DCs) (%)	-0.922	<.001
DC imports as % total	-0.842	<.01
Exports as % turnover	-0.653	<.05
Turnover per person (constant \$)	-0.885	<.01
Metal products		
Import penetration (%)	-0.638	<.05
Import penetration (DCs) (%)	-0.634	<.05
DC imports as % total	-0.595	<.10
Exports as % turnover	-0.697	<.05
Turnover per person (constant \$)	-0.642	<.05
Machinery & equipment		
Import penetration (%)	-0.313	os
Import penetration (DCs) (%)	-0.304	ns
DC imports as % total	-0.305	ns
Exports as % turnover	-0.219	ns
Turnover per person (constant \$)	-0.316	ns

Source: source data drawn from Appendix 1.

Note: a correctation coefficient of one would indicate perfect positive correlation between the two variables; minus would be a perfect inverse correlation; zero means no correlation. Note: ns means not significant.

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