Australia’s Export Performance in East Asia

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CONTENTS

The issues ........................................................................................................................................... 1

Developments in East Asian markets ....................................................................................... 5

Australia’s performance in the main commodity markets ................................................... 9

Constant market share analysis ............................................................................................. 13

Structural questions .................................................................................................................. 18

Policy factors ............................................................................................................................... 25

Conclusion .................................................................................................................................. 30

Notes ............................................................................................................................................. 33

References .................................................................................................................................... 34
Tables

Table 1  Growth rate of real GNP and imports, 1980–94 .......................... 5
Table 2  Intra-industry trade indexes in East Asia, 1985 and 1994 ................................................................. 9
Table 3  Changes in the shares of Australia, the United States, the European Union and Japan in the East Asian market, 1985–94 ................................................................. 12
Table 4  Constant market share analysis of Australia’s export performance in East Asia, 1980–85 and 1985–94 ......................... 15
Table 5  Nominal rates of assistance to agriculture in industrial countries, 1979–93 ................................................................. 20
Table 6  Regression of effective industry assistance on Australia’s market shares in East Asia and in the world, by industry groups ................................................................. 30

Figures

Figure 1  Australia’s exports to East Asia and their share of total exports, 1980–95 ................................................................. 2
Figure 2  Total East Asian imports and Australia’s share in East Asian imports, 1980–95 ................................................................. 3
Figure 3  Australia’s share in East Asian imports, by country, 1985–94 ............................................................ 4
Figure 4  Unweighted average tariff rates and NTB incidence in APEC, 1988 and 1993 .............................................. 6
Figure 5  East Asian imports, by country groups ................................. 7
Figure 6  East Asian imports, by commodity groups ............................. 8
Figure 7  Various countries’ and regions’ shares of East Asian imports ................................................................. 10
Figure 8  East Asian imports by commodity groups, percentage change between 1985 and 1994 ................................. 16
Figure 9  Australia’s exports to East Asia, by commodity groups, 1985–94 .............................................................. 17
Figure 10  East Asian imports of fuels, minerals and metals, by country groups ............................................................ 21
Figure 11  Comparison of unit labour costs, 1980–94 ............................. 24
Figure 12  Comparison of export growth rates between policy assisted and non-assisted manufactures .......................... 27
Australia’s Export Performance in East Asia

Despite the strong growth in Australia’s exports to East Asia in the past decade, Australia has lost import share in that market. Not only has Australia lost share to developing East Asian competitors, it has lost share relative to other industrialised country suppliers. The main reasons for Australia’s relatively poor record in exporting to East Asia are the adverse effects of commodity composition and loss of competitiveness in agriculture and (to a lesser extent) in manufacturing in trade growth. Competitiveness improved sharply in the minerals and fuels sector. Nonetheless, in the 1980s, the restructuring of Australia’s trade with East Asia was assisted by economic reform and trade liberalisation. Preliminary evidence suggests that reductions in industry assistance have facilitated Australia’s manufacturing exports, growth of which roughly matched the expansion of East Asian manufacturing market. Australia’s competitiveness in East Asian markets will depend importantly on future progress with economic reform and its impact on the productivity of established and newly emerging export industries.

The issues

East Asia is now the most dynamic element in the world economy. East Asian developing economies have led world economic growth over the last decade and a half, with no near competitors. Trade expansion and structural change has underpinned East Asia’s outstanding growth performance and constituted a new engine of world trade growth.

The emergence of East Asia as the leading source of world trade and economic growth is of special importance to Australia. The proximity of the East Asian economies to Australia and the strong complementarity in their resource endowments with those of the Australian economy provide significant opportunity for Australian trade growth based upon the growth of East Asian markets, as has often been remarked.

The first wave of Australia’s export expansion into East Asian markets came in the first few decades of the twentieth century, as Japan became a substantial industrial power and growing importer of raw materials and foodstuffs (Crawford 1938; Drysdale 1967). The second wave came with the resumption of Japan’s growth after the Second World War and its acceleration in the 1960s and 1970s (Drysdale 1967; Drysdale and Kitaoji 1981). The third wave came as the other East Asian economies (most recently and remarkably China)
embarked upon a course of industrialisation and modernisation that gave new impetus to East Asia’s trade growth after the 1970s (Drysdale 1988; Garnaut 1989; APEG 1996a).

East Asia is now widely acknowledged as the central element in Australia’s foreign economic relations and foreign economic diplomacy, and there is no doubt that the growth of the East Asian market has contributed considerably to Australia’s trade growth, especially over the last decade or so.

Figure 1 sets out the remarkable record of Australia’s export growth to East Asia over the last decade and a half and the dramatic growth of East Asia’s share of Australia’s exports. In the decade between 1985 and 1995, US$20.8 billion of the US$26.9 billion increase in Australia’s exports (or 77 per cent) went to East Asia (APEG 1996a). In Asia and the Pacific, this was well ahead of Indonesia (61.7 per cent), Japan (61.0 per cent) and Malaysia (54.8 per cent).

But how well has Australia really done in East Asian markets?

Total exports to East Asia have more than doubled between 1985 and 1995, as Figure 1 reveals. Manufacturing exports more than quadrupled and the share of East Asia in

![Figure 1 Australia’s exports to East Asia and their share of total exports, 1980–95 (US$ billion; per cent)](image-url)

Notes: East Asian countries include ASEAN (including Singapore), Japan, China, Korea, Taiwan, Hong Kong, Cambodia, Laos and Vietnam. Data for 1995 are IEDB estimates.

Source: UN trade data, International Economic Databank, Australian National University.
Australia’s total exports jumped from 44.5 per cent to 58 per cent in just ten years. But, looked at from another perspective, Australia’s record in the East Asian market appears abysmal.

Figure 2 sets out this other perspective. While total East Asian imports have grown sharply since the mid-1980s, Australia’s share in East Asia’s imports has in fact fallen significantly, from 4.1 per cent in 1985 to 2.8 per cent in 1994 and an estimated 2.6 per cent in 1995. If Australia had merely held aggregate market share in the East Asian market over these years, it would have added US$13 billion to its exports in 1994.

While Australia’s market share has not contracted evenly in all East Asian markets, the weakness appears widespread. In Australia’s largest East Asian market, Australia’s share of Japanese imports fell from 5.7 per cent in 1985 to 4.6 per cent in 1994 (Figure 3).

Declining market share is sometimes seen as one indicator of competitiveness in the international marketplace. If market share is declining in East Asia — the world’s fastest growing market — where have all the benefits from the pain of Australia’s liberalisation and economic reform gone? Is declining market share a consequence of Australia’s declining

**Figure 2**  Total East Asian imports and Australia’s share in East Asian imports, 1980–95 (per cent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total East-Asian imports (US$b)</th>
<th>Australia’s share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>1,200</td>
<td>2.0</td>
</tr>
<tr>
<td>1985</td>
<td>1,400</td>
<td>2.5</td>
</tr>
<tr>
<td>1990</td>
<td>1,600</td>
<td>3.0</td>
</tr>
<tr>
<td>1995</td>
<td>1,800</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Note:** Data for 1995 are IEDB estimates.

**Source:** UN trade data, International Economic Databank, Australian National University.
competitiveness in East Asian markets? Has the geographic or commodity structure of the East Asian market changed in ways that are particularly disadvantageous to Australian exporters? Or has declining market share been caused by all these factors?

This paper seeks to throw light on the answers to these questions by analysing developments in East Asia’s markets and Australia’s place in them using the rich data sources of the Australian National University’s International Economic Databank (IEDB). These questions can be addressed by applying constant market share analysis to separate out the effects of East Asia’s trade expansion, the geographic structure of East Asia’s trade growth, the commodity composition of trade growth and competitiveness on Australia’s performance in the East Asian market. The analysis in this paper is quite simple and represents only a first, rather aggregative, cut on the question. It is suggestive, however, of the scope for more sophisticated analysis — exploring in more depth some of the important causal relationships involved and looking in much more detail at disaggregated data for particular markets. There is a particular interest in explaining Australia’s burgeoning exports of manufactures to East Asia. The results of our analysis provide a context in which to assess Australia’s export

Figure 3  
Australia’s share in East Asian imports, by country, 1985–94 (per cent)

Note: ASEAN countries include Singapore.
Source: UN trade data, International Economic Databank, Australian National University.
performance in East Asia and the alternative policy strategies that are advocated to improve upon it. We conclude with some preliminary comments on these policy issues.

Developments in East Asian markets

The last decade has witnessed what we described above as the third wave of East Asian industrialisation. Earlier Japanese economic growth had been the major force of East Asia’s import growth. In the last decade the geographic structure of East Asia’s trade and economic growth changed dramatically. Although Japan’s trade and economic growth was strong by industrial country standards in the second half of the 1980s, East Asian developing economy growth was much stronger and, as Japan’s growth waned in the 1990s, developing economy growth in East Asia hardly faltered. The momentum of East Asia’s growth shifted sharply in favour of the newly industrialising economies (NIEs) of Korea, Taiwan, Hong Kong and Singapore, the ASEAN economies and China over this decade and a half.

Table 1 reveals the relationship between output and import growth in Japan, East Asian developing economies and in East Asia as a whole between 1980 and 1994. In the past decade, the real growth rate for East Asian developing economies was well above 8 per cent compared

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Growth rate of real GNP and imports, 1980–94 (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>East Asian developing</td>
</tr>
<tr>
<td>Annual average real growth rate of GNP (A)</td>
<td></td>
</tr>
<tr>
<td>1980–85</td>
<td>6.7</td>
</tr>
<tr>
<td>1985–90</td>
<td>8.4</td>
</tr>
<tr>
<td>1990–94</td>
<td>8.6</td>
</tr>
<tr>
<td>Annual average real growth rate of imports (B)</td>
<td></td>
</tr>
<tr>
<td>1980–85</td>
<td>1.0</td>
</tr>
<tr>
<td>1985–90</td>
<td>24.7</td>
</tr>
<tr>
<td>1990–94</td>
<td>15.2</td>
</tr>
<tr>
<td>Elasticity of import to output growth (B/A)</td>
<td></td>
</tr>
<tr>
<td>1980–85</td>
<td>0.1</td>
</tr>
<tr>
<td>1985–90</td>
<td>3.0</td>
</tr>
<tr>
<td>1990–94</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Source: UN trade data; and World Bank, World Tables, International Economic Databank, Australian National University.
with 4.6 per cent for Japan in the second half of the 1980s and 1.5 per cent in the first half of the 1990s.

The propensity to import in East Asia has risen significantly since the mid-1980s. Import growth was four times as fast as output growth in the second half of the 1980s and more than three times as fast in the first half of the 1990s for all of East Asia. In these years, the propensity to import was markedly and consistently higher for Japan than for East Asian developing economies, a factor which mitigated the negative impact of lower Japanese economic growth on the scale of Japanese imports.

Hence, the rapid growth of East Asia’s imports over the past decade was driven not only by strong economic growth, focused on developing economies within the region, but also by a growing propensity to import. Growing propensity to import, in turn, was the product of considerable structural change in the East Asian economies, associated with changing comparative advantage and productivity as well as significant trade liberalisation and economic reform. It is estimated that economic reform in China alone added US$36 billion to China’s imports in 1992 (Drysdale and Song 1995). The effects of trade liberalisation were also strong in Malaysia, Indonesia and Thailand. Figure 4 summarises trends in tariff and non-

Figure 4 Unweighted average tariff rates and NTB incidence in APEC, 1988 and 1993 (per cent)

Notes: These figures are derived from simple averages of the unweighted tariffs and the incidence of NTBs. Because of the different sources of the data making up the averages, as well as the inherent difficulties associated with these estimates, unweighted values are preferred as a means of examining trends over time in tariff assistance.


These developments in the East Asian economy are reflected in the remarkable change in the geographic structure of East Asia’s imports, shown in Figure 5. In the early 1980s, Japan accounted for half of the East Asian import market. By 1985 the East Asian developing countries’ share of all East Asia’s imports was 59 per cent. In 1994 their share was 73 per cent, Japan’s share having fallen from 41 per cent of 27 per cent over the decade. Intra-regional trade also grew strongly over these years. In 1980 the East Asian share of East Asia’s imports was 35 per cent. It rose to 41 per cent in 1985 and further to 53 per cent in 1994 (see Figure 7a).

Figure 5  East Asian imports, by country groups (US$ billion)

Source: UN trade data, International Economic Databank, Australian National University.

The forces driving these changes in the East Asian market also added significantly to its scale, mainly after the mid-1980s. The annual average growth of East Asia’s imports reached almost 14 per cent between 1985 and 1994, compared with growth of around 1.6 per cent between 1980 and 1985. East Asia’s share of world imports jumped from 16 per cent in 1985 to 24 per cent in 1994.
This growth in the scale of East Asia’s imports and the faster growth of imports into developing economy markets in the region brought with it a dramatic shift in the commodity structure of trade (see Figure 6). The growth of the East Asian market was primarily concentrated in manufactured imports. Between 1985 and 1994, East Asia’s imports of manufactures grew at an average annual rate of 18.7 per cent. At the beginning of the 1980s only two-fifths of East Asia’s imports were manufactured goods. Their share was around 50 per cent in the mid-1980s; by 1994 nearly three-quarters of all imports were manufactures. Around 88 per cent of East Asia’s manufactured imports were elaborately transformed manufactures in that year, a share that had risen sharply since the mid-1980s.

Intra-industry trade growth in manufactures was a growing element in East Asia’s manufactured goods trade and intra-industry trade among the countries in the region rose significantly between 1985 and 1994 (Table 2).

These developments in the East Asian market were clearly a mixed blessing for an economy like Australia’s. The scale of East Asia’s trade expansion benefited Australia enormously. The shift away from Australia’s largest established market, in Japan, was not

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**Figure 6**  East Asian imports, by commodity groups (US$ billion)

![Graph showing East Asian imports, by commodity groups (US$ billion)](source: UN trade data, International Economic Databank, Australian National University.)
obviously to Australia’s advantage. Unambiguously, the commodity structure of East Asian import growth did not favour a country with an established comparative advantage in agricultural and minerals and fuel exports since most of the region’s import growth was in manufactures. Given these huge changes in the structure of the East Asian import market, the first step in assessing Australia’s performance needs to involve examination of market share in major commodity categories, not only overall market share, and the comparison of Australia’s performance in these markets with that of comparable suppliers—countries at a similar stage of development to Australia.

**Australia’s performance in the main commodity markets**

It is possible, using IEDB data, to disaggregate the analysis of Australia’s performance in East Asia’s commodity markets to the three-digit SITC commodity level (which identifies 190 different commodities) or even more. In order to simplify, however, we focus on just three main commodity groups: agricultural goods, minerals and fuels, and manufactures. Our definition of manufactures here is similar to what are often called elaborately transformed manufactures, which excludes resource-based manufactures (such as foodstuffs and non-
Figure 7 Various countries’ and regions’ shares of East Asian imports (per cent)

Figure 7a All commodities

Figure 7b Agriculture
Figure 7c  Fuels, minerals and metals

Figure 7d  Manufactures
ferrous metals). We compare Australia’s performance in the East Asian market with that of the United States (a rich agricultural and raw materials exporter as well as an exporter of sophisticated manufactured goods) as well as Europe, Japan and other East Asian economies not only for all exports but also for exports of each of these three broad commodity groups. These comparisons are set out in Figure 7 (a) – (d).

Two conclusions emerge from inspection of these data. First, the East Asian economies themselves enjoyed the biggest gains in the share of East Asian markets — even in agricultural products in which they might not be thought to have had a strong comparative advantage. Their market share held strongly. Second, the only commodity group for which Australia’s market share declined noticeably was agricultural goods. Australia gained and then held market share in minerals and fuels. Australia lost and then held market share in manufactures. Superficially, at least, Australia suffered declining competitiveness in agricultural exports to East Asia but improved and held competitiveness in minerals and fuels and lost and held competitiveness in manufactured goods exports.

The year in which Australia’s overall share in East Asian markets began to decline was 1985. The following analysis therefore focuses on performance over the last decade.

Table 3 presents these data in comparative perspective, tracing changes in the shares of Australia, the United States, Europe and Japan in East Asia’s markets for all commodities, agriculture, minerals and fuel and manufactures over the decade 1985 to 1994. The paradox remains. Australia’s export performance in East Asia was worse than that of any of the other industrial exporters to the region, although the United States suffered a 7 per cent loss of market share (compared with Australia’s 32 per cent). Yet Australia’s market share in

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>EU</th>
<th>Japan</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>All commodities</td>
<td>-32.1</td>
<td>23.6</td>
<td>8.8</td>
<td>-7.0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>-10.4</td>
<td>47.5</td>
<td>-14.2</td>
<td>-13.9</td>
</tr>
<tr>
<td>Fuel, minerals and metals</td>
<td>24.5</td>
<td>193.3</td>
<td>234.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Manufactures</td>
<td>1.1</td>
<td>-13.6</td>
<td>-24.1</td>
<td>-22.7</td>
</tr>
</tbody>
</table>

*Source: UN trade data, International Economic Databank, Australian National University.*
minerals and fuels and, less notably, manufactures improved— in the latter category the market share of which for all other industrial country exporters actually declined. In agriculture, Australia lost more than 10 per cent market share (the United States and Japan lost a little more), whereas Europe was the only exporter to gain market share.

**Constant market share analysis**

The effects of these changes in the commodity and geographic structure of East Asian imports and competitiveness on Australia’s performance in the East Asian market can be measured more precisely using constant market share analysis. Constant market share analysis was pioneered by Tyszinski (1951) to analyse changing competitiveness in international trade. It is a useful tool for assessing market performance although it has some obvious limitations. A formal statement of the model is set out in Richardson (1971). We use Richardson’s model to separate out the effects of trade expansion, commodity structure, geographic structure and competitiveness on Australia’s share in East Asia’s markets. Our analysis is highly aggregated — examining performance in the three broad commodity groups identified above (agricultural commodities, minerals and fuels, and manufactured goods) and for four sub-regions (ASEAN (including Singapore), Northeast Asia (excluding Japan), Japan and other East Asian countries). There is clearly scope for further work employing a higher degree of commodity disaggregation and focus on particular country markets in East Asia. However, the purpose here is served quite adequately, and the main point established more clearly, with analysis at this higher level of aggregation.

When it is observed that Australia is performing badly in East Asian markets because its overall share in East Asian markets has declined, the implicit comparison is between Australia’s actual export growth in East Asia and what export growth might have been if it had kept up with East Asia’s import expansion. This is also the comparator used in constant market share analysis. Hence constant market share analysis is most appropriate to addressing the main question posed in this paper. The deviation of actual export growth from that growth which would have maintained constant market share is explained in terms of what export growth would have been if a constant share had been held in each commodity market and if constant shares had been held in those commodity markets in each of the geographic markets within the relevant international market (in the present case, East Asia).

There are four main elements of Australia’s trade performance that can be assessed using constant market share analysis.
The **trade expansion effect** indicates the potential growth of Australia’s exports to East Asia if overall market share had remained constant.

The **commodity composition effect** indicates how initial specialisation in exports favours or disadvantages Australia in maintaining constant market share. This effect reflects the nature of factor endowments in Australia relative to changes in factor endowments in East Asia and other countries and the income and price elasticities of demand for products in the export of which Australia is specialised, principally commodities embodying land and mineral resources.

The **effect of geographic market structure** captures the way in which the growth of Australia’s exports is advantaged or disadvantaged by the relative growth of the particular country markets in which they are concentrated within East Asia. This effect reflects relative income growth and trade policies and their impact on the strength of import growth in particular markets.

The **competitiveness effect** is the residual — a measure of whether Australia’s exports grew more or less rapidly than could be expected from the initial commodity and geographic structure of its export trade with East Asia and the growth of East Asian imports. It is assumed that competitiveness has its effect independently of the effects of commodity and geographic structure on trade growth, and reflects developments such as productivity performance, flexibility in the domestic economy and export orientation.

In reality factors other than pure ‘competitiveness’; such as policies affecting commodity and country market shares, may influence the size of this residual, as discussed below. However, the competitiveness effect measured in this way provides a very useful indicator of market performance.

Table 4 sets out the results of constant market share analysis of Australia’s export performance in East Asia. Two periods are chosen for study — 1980 to 1985 and 1985 to 1994. The latter period is of special interest since this was the period in which East Asia’s import market expanded very rapidly and in which there was a marked decline in Australia’s share in that market.

The effect of East Asia’s overall trade expansion should have lifted Australia’s exports to the region substantially, especially in the ten-year period after 1985. The increment in East Asia’s imports from Australian exports would have almost doubled to US$28 billion had it kept pace with East Asian trade expansion.
Table 4  Constant market share analysis of Australia’s exports performance in East Asia, 1980–85 and 1985–94 (million US dollars)

<table>
<thead>
<tr>
<th>Sources of change in exports</th>
<th>1980–85</th>
<th>1985–94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in exports</td>
<td>1,267</td>
<td>15,087</td>
</tr>
<tr>
<td>(100)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>Due to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade expansion</td>
<td>901</td>
<td>28,168</td>
</tr>
<tr>
<td>(71.2)</td>
<td>(186.7)</td>
<td></td>
</tr>
<tr>
<td>Commodity composition effect</td>
<td>-1,444</td>
<td>-14,604</td>
</tr>
<tr>
<td>(-114.0)</td>
<td>(-96.8)</td>
<td></td>
</tr>
<tr>
<td>Market structure effect</td>
<td>-220</td>
<td>-14,604</td>
</tr>
<tr>
<td>(-17.7)</td>
<td>(0.8)</td>
<td></td>
</tr>
<tr>
<td>Competitiveness effect</td>
<td>2,030</td>
<td>1,409</td>
</tr>
<tr>
<td>(160.2)</td>
<td>(9.3)</td>
<td></td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>-30.6</td>
<td>(-69.6)</td>
</tr>
<tr>
<td>Minerals and fuels</td>
<td>142.3</td>
<td>176.6</td>
</tr>
<tr>
<td>Manufactures</td>
<td>-7.9</td>
<td>(-7.0)</td>
</tr>
</tbody>
</table>

*Note:* Figures in parentheses represent percentage contributions.

The commodity composition effect, on the other hand, was unfavourable in both periods. Australia’s export specialisation was concentrated in commodities the demand for which grew relatively slowly in East Asia. The effect of commodity composition on Australia’s export growth over the whole period was negative, wiping out more than half the potential gain to Australia from East Asia’s trade expansion. As Figure 6 demonstrates clearly, the overwhelming proportion of East Asia’s trade growth over these years was in manufactures. Although the growth of Australia’s exports of manufactured goods to the region more than matched the growth of East Asia’s imports of manufactures, as Figure 8 shows, that growth (from a small base) far from covered the loss of overall market share due to the slow growth of East Asia’s imports of commodity groups such as minerals and fuels and agriculture in which Australia had a strong base. Moreover, when account is taken of the geographic structure of growth in East Asia’s markets, Australia lost market share and competitiveness in exports of manufactures to the region. Figure 9 shows the heavy specialisation in minerals and fuels and agriculture in Australia’s exports to East Asia. Australia’s manufactured exports to East Asia comprised less than one per cent of East Asia’s imports of these goods.
The geographic distribution of Australia’s markets in the East Asian region had a negative impact between 1980 and 1985 but did not much affect the growth of its exports to the region between 1985 and 1994. This is not an altogether obvious result, as inspection of Figure 3 suggests. Australia’s overall share of those East Asian markets which grew most strongly in these years was lower than its share of the slower growing Japanese market, by a significant margin. After the mid-1980s this might have affected Australia’s exports to the faster growing markets and slowed export growth. That it did not reflect the success of market diversification in Australia’s exports to the region as the geographic structure of the East Asian market changed dramatically.

The issue of most interest is how Australia’s competitiveness changed in East Asian markets over these years. In the first period, overall competitiveness improved markedly and would have lifted the increase in Australia’s exports to the region by an additional 60 per cent but for the unfavourable commodity and geographic structure of the trade growth. Competitiveness also improved a little in the period after 1985 — accounting for around 9 per cent of the increase in exports to 1994.

However, the positive effect of competitiveness on the growth of Australia’s exports to East Asia’s market was not uniform across all commodity groups nor was it maintained
in later years. Indeed, the only sector in which competitiveness improved in these markets and in both periods was minerals and fuels. Competitiveness declined substantially in agriculture, especially after 1985, and modestly in manufactures—a little less after 1985 than between 1980 and 1985.

Table 4 reveals that minerals and fuels accounted for 142 per cent of the overall gain through competitiveness between 1980 and 1985 and 177 per cent between 1985 and 1994. Agriculture had a negative effect, 31 per cent in the former period and 70 per cent in the latter, as did manufactures—by 8 per cent and 7 per cent in each period respectively.

In effect, Australian minerals and fuels gained added share in East Asian markets, agriculture lost considerable market share, while manufactures lost a little, after taking the geographic structure of East Asia’s import growth into account. This analysis confirms the impressions from Figure 7 and Table 3 which reveal that Australia failed to keep pace with agricultural import growth in East Asia. It also confirms the impression of sharply increased competitiveness in minerals and fuels and moderate declines in manufactures, with market share holding steadier in the latter period.
Structural questions

Constant market share analysis serves to highlight some important questions about the decline in Australia’s share of the East Asian market. Why has Australia lost share in East Asian agricultural markets in which Australia is acknowledged to have a strong comparative advantage? What lifted Australia’s market share in minerals and fuels as East Asian imports of these commodities stagnated? Why has Australia lost or only just held market share in manufactures?

The first two of these questions may be answered relatively straightforwardly and we shall merely list the main factors which influenced the outcome. The third question is a matter of more debate and some policy interest. We shall review the main arguments surrounding this question and add a little analysis to support the interpretation that micro-economic and trade reform in Australia has a quite important role in sustaining Australia’s performance in the East Asian market for manufactured goods.

The problem with agricultural exports

Agricultural exports comprise around 31 per cent of all Australian exports to East Asia and this share has been increasing slightly since the mid-1980s. However, Australia’s share of East Asian agricultural imports has declined over the last decade. Factors which have caused the decline include:

- changes in agricultural prices;
- changes in agricultural protection regimes;
- supply constraints in Australia;
- the assistance policies of major agricultural exporters; and
- changes in Australia’s export competitiveness in agricultural products.

Clearly not all the factors which have conspired to reduce Australia’s agricultural market share in East Asia are strictly related to ‘competitiveness’. Many have their effect on market share for the whole group of agricultural commodities via their effect on the composition of agricultural trade, and have to do with the aggregation problem in isolating pure ‘competitiveness’ effects.

Changes in agricultural prices should not affect the relative performance of Australia in East Asia’s markets if they were spread uniformly across all agricultural commodities or if
the commodity composition of agricultural trade was exactly the same for all exporters and importers in that market. In reality neither of these conditions holds true. The commodity composition of agricultural exports varies significantly among the major agricultural exporters, so changes in relative prices within the agricultural products group affected Australia’s overall share in that market. Take the case of wool. Wool was Australia’s second largest agricultural export to East Asia in 1994 (after meat) and exports were valued at US$1.4 billion. The collapse of the wool market in the 1990s led to a sharp decline in wool prices, which, in 1994, were 44 per cent lower than in the peak year of 1988. The share of wool in agricultural exports to East Asia fell from 23 per cent in 1985 to 16 per cent in 1994. The share of Australian wool in East Asian agricultural imports dropped from 1.7 per cent in 1985 to 1.1 per cent in 1994. Developments in the wool market reduced Australia’s overall share in East Asia’s market for agricultural imports.

Import restrictions affect both trade volumes and international prices. East Asian importers generally operate highly restrictive agricultural trade policy regimes and are susceptible to manipulation which favours or disadvantages particular agricultural suppliers. Many important commodities which Australia exports to the region are subject to both tariff and non-tariff trade barriers. While such barriers — affecting the meat, grains and wool trade — apply to all exporters, their effect on a particular country depends on the commodity composition of its trade and the extent of explicit or implicit country discrimination in trade regimes. Australia’s agricultural exports have suffered on both counts. The relocation of wool textiles production to China within the East Asian region, for example, has subjected wool imports to higher tariff and non-tariff barriers to trade. In Japan (traditionally our largest market for wool) there is completely free access. In China wool imports are subject to both tariffs and import quotas. On the second count, Australian beef exports have been subject to both explicit and implicit discrimination in Taiwan and Korea under trade regimes which favour imports of beef from the United States. Both factors reduced Australia’s overall share in East Asia’s agricultural imports.

Supply problems periodically affect Australia’s share in agricultural exports because of climate variability. In 1994–95 drought slashed wheat production by 46 per cent and coarse grain production by almost 50 per cent, creating difficulties in meeting the growth in regional demand and servicing long-term trade arrangements. This also reduced market share in these years.
Of course, the striking aspect of changing agricultural market shares in East Asia (displayed in Table 3) is the growth of European exports at the expense of both Australia and the United States. Table 5 shows nominal rates of assistance for agriculture in the European Union, the United States and Australia. Since the mid-1980s agricultural assistance has declined in both Australia and the United States, while it has continued to rise in Europe. Increased protection and export subsidies for the agricultural sector in the European Union seems to have hurt more efficient agricultural exporters such as Australia.

Table 5    Nominal rates of assistance to agriculture in industrial countries, 1979–93 (percentage, based on producer subsidy equivalent) a

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>582 b</td>
<td>502</td>
<td>85</td>
<td>78</td>
<td>90</td>
</tr>
<tr>
<td>United States</td>
<td>19</td>
<td>28</td>
<td>56</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Australia</td>
<td>10</td>
<td>16</td>
<td>16</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

Notes: a The per unit producer subsidy equivalent, expressed as a percentage of the border price for each commodity and averaged across commodities using production valued at border prices as weights. The EC rates include national government assistance as well as that provided by the community’s CAP. b EC-10.

Sources: OECD (1994).

The effect of competitiveness on Australia’s performance in East Asia’s agricultural markets is difficult to isolate precisely without more disaggregated analysis of individual commodity markets. However, there is evidence of weakness in agricultural competitiveness, especially at the intermediate product and valued added end of this commodity group. Productivity may have improved and costs at the farm gate been lowered. But delivery of value added products into East Asian markets has not kept up with their growth. There is a paucity of careful industry assessment of East Asian market potential, including understanding of complex distribution and marketing systems, product quality and changes in tastes. This inevitably inhibits the growth of export-orientation needed to retain and increase market share in these product areas. A recent study by the dairy industry, for example, highlights the scope for increasing Australia’s market share in the growing Chinese market for dairy products (APEG 1996b).
Competitiveness in minerals and fuels

East Asian imports of minerals and fuels suffered a dramatic reversal in the mid-1980s and were virtually stagnant between 1980 and 1994. This setback to Australia’s leading export sector was the critical element in Australia’s performance in the East Asian market during this period. It was this element which threatened the stagnation of export growth and Australia’s economic growth more generally. It was also the element which provided the major catalyst to policy reform and change to cope with this prospect.

The origins of the problems for Australia’s leading exporters to East Asia were both structural and cyclical in character. The structural problems required long-term, not simply temporary, solutions. In the early 1980s, Australia faced a sharp downturn in the terms of trade and demand for energy and raw material exports. This was no passing phenomenon. It had its roots in the fall in energy prices and the structural change and the achievement of efficiencies in resource use in industrial economies after the first and second oil shocks, nowhere more so than in Japan. The impact of these developments in Japan checked the growth of what had been Australia’s biggest market for these commodities (see Figure 10). At the end of the 1980s, the stagnation of Japanese import demand was exacerbated by deep

![Figure 10: East Asian imports of fuels, minerals and metals, by country groups (US$ billion)](source: UN trade data, International Economic Databank, Australian National University)
recession and slow recovery superimposed on these longer term structural problems. But for strong growth in other East Asian markets there would have been a substantial drop in the value of East Asian imports of minerals and fuels over this decade and a half. As it was, East Asian minerals and fuels imports increased hardly at all.

The response of the resource sector to the collapse of demand in, and the huge shift in the geographic structure of, the regional market for its output demonstrates its flexibility and competitiveness, as well as the success of Australian policy reforms which supported it. Australia’s share of East Asian markets for minerals and fuels increased significantly between 1980 and 1994 — from 4.6 per cent to 9.2 per cent for the whole region and from 3.4 per cent to 7.3 per cent in the East Asian markets other than Japan. Only in China has Australia’s market share fallen, from 13.6 per cent in 1980 (and a high of 17.8 per cent in 1985) to 5.8 per cent in 1994. As Table 3 reveals, Australia’s share of these large commodity markets increased by 24.5 per cent between 1985 and 1994, much more than that of the United States (Japan and Europe being insignificant suppliers of these commodities in international markets). Market share increased strongly in Japan, from 7.8 per cent in 1985 to 11.2 per cent in 1994 and in Taiwan, from 8.5 per cent to 13.8 per cent over the same years.

Australia not only improved competitiveness in almost all its East Asian markets, but successfully switched exports towards high growth markets in the developing economies of East Asia, with the significant exception of China. This performance weakened after 1988 but the gains of Australian market share in minerals and fuel were impressive in the face of such adverse market conditions. They were achieved with the support of foreign exchange market reforms, financial market reforms, the deregulation of export controls, trade reforms and some progress with micro economic reforms (Garnaut 1989; Garnaut 1994). They moderated, although they were not large enough to reverse, the unfavourable effect of changes in the commodity structure of the growth in East Asia imports on Australia’s exports to the region.

The questions about manufactures

The turnaround in the performance of Australia’s manufactured goods exporters in the mid-1980s was perhaps even more impressive. Manufactured goods exports to East Asia declined slightly between 1980 and 1985 but increased at 18.9 per cent annually between 1985 and 1994, which matched the overall growth in the East Asian markets — at 18.7 per cent annually over the past decade. On the surface, the performance of Australia’s manufactured goods
exports in East Asian markets appears to have been outstanding. But most of this growth was induced by the strong growth of East Asia’s imports of manufactures and resulted simply from Australia’s not significantly losing its share in these markets.

There are a number of questions about the performance of manufactured goods exports, answers to which are of considerable policy interest and about which there has been active debate.

Some have suggested that recent growth of manufactured goods exports should be seen as a recovery of long-term trend rather than a phenomenon of special noteworthiness (Pomfret 1996). The share of manufactures in Australia’s total merchandise exports was 13 per cent in the early 1960s. It fell steadily to under 10 per cent in the mid-1980s. By the mid-1990s it had risen to over 30 per cent. The definition of manufactures we use here is relatively narrow, excluding non-ferrous metals such as aluminium and copper and processed raw materials and foodstuffs. There has certainly been a recovery of the share of manufactures in Australia’s overall merchandise exports in the 1980s, but strong export growth has elevated the importance of manufactures in Australia’s exports substantially above previous levels. Exports of services (not analysed in this paper because the focus is on merchandise trade) also enjoyed stellar growth and by 1995 the services sector was set to become an overall net exporter having long been a strong net importer (APEG 1996a). Moreover, where exports of manufactures were an insignificant share of total exports to East Asia in 1980, they had risen to 11.7 per cent of all Australian exports to that market in 1985 and 25.3 per cent in 1994 — alongside established exports of foodstuffs and raw materials. The rise of manufactures in Australia’s exporting to East Asia and the rest of the world is no statistical quirk. It clearly represents a significant change in the structure of Australia’s trade specialisation in international markets.

The more fundamental question concerns the origin of manufacturing export success.

Constant market share analysis suggests that Australia’s competitiveness actually declined somewhat in a very strongly growing East Asian import market for manufactures. Traditionally manufacturing activities were heavily protected in Australia (Anderson and Garnaut 1987). The shift towards a more liberal trade regime and economic reforms in the 1980s began to remove the penalties that assistance to manufacturing imposed upon agricultural and mining activities and to expose manufacturing activities to more direct competition from imports. Yet exports of manufactures also grew strongly.

These reforms, while they are far from complete and were phased in over more than a decade, produced profound changes in the incentive structures affecting Australian
manufacturers’ performance in the international market place. The more competitive sectors of manufacturing were favoured by a sharp reduction in costs. Other sectors shrank as they were opened to lower cost imports. Even within the most highly protected sectors (automobiles, clothing, textiles and footwear) there were big shifts in the structure of intra-sectoral production and trade specialisation as average levels of assistance came down (Industry Commission 1995b).

Figure 11 provides some insight into the strength of the gains in manufacturing competitiveness associated with these policy changes. The data in this figure compare trends in unit labour costs in Australia and other developed country producers such as the United States, the European Union and Japan between 1980 and 1994. Unit labour costs declined substantially and consistently after 1983 (the beginning of the reform period) while in other industrial economies they declined at a much slower rate. These data suggest that improvements in Australia’s labour productivity and cost competitiveness played a role in Australia’s success in East Asian markets for manufactures in this period, at least in competition against major industrial commodity exporters. The gain was sustained throughout the whole period and is a reflection of the success thus far of the reform in the Australian economy begun in the early 1980s.

Figure 11  Comparison of unit labour costs, 1980–94 (US$ per US$1 value added output)

Yet why was this gain in unit cost competitiveness not translated into sustained gains in market share for Australia’s manufactured exports to East Asia?

Sheehan, Pappas and Cheng (1994), using an index of export competitiveness which measures changes in nominal Australian unit labour costs adjusted for exchange rates relative to fourteen major manufacturing exporters, suggest that most of the improvements in Australian manufacturing cost competitiveness occurred in the mid-1980s (with 60 per cent of the improvement between the December quarter 1984 and the September quarter 1986). They conclude that improvements in Australian cost and price competitiveness may have facilitated manufacturing take-off in the mid-1980s but are a minor factor after that period.

Menzies and Heenan (1993) argue that the big shift in costs in this period associated with depreciation of the real exchange rate enabled exporters to establish a beachhead in export markets and their success in exporting had powerful and long-lasting demonstration effects in export success.

It appears that the bulk of Australia’s manufactured goods export growth in East Asia derived from the growth of East Asia’s demand. Competitiveness improved, especially against established industrial suppliers as Table 3 and Figure 11 indicate but this effect appears to have petered out in the 1990s.

In addition to the effect of changed competitiveness and the growth of Asian demand, Sheehan, Pappas and Cheng (1994) suggest that export growth in manufactures resulted from success of a range of industry-specific policies targeting export growth and positive changes in Australian producer attitudes towards competition and exporting.

**Policy factors**

The most controversial element in the argument about manufacturing export success relates to the importance of industry specific policy measures in sustaining what was a very large and general increase in manufactured goods exporting.

The focus here is on what are often called *elaborately transformed* manufactured goods exports — not the export of simply processed agricultural products or raw materials, the performance of which may have been more directly influenced by price competitiveness alone. Here use of the term ‘manufactures’ refers to elaborately transformed manufactures and our definition of manufactured goods throughout the paper conforms closely to this category of goods. Aluminium and other non-ferrous metals, for example, are included in minerals and fuels in the commodity categorisation used in this paper, not in manufactures.
There are three questions. Could export and industry assistance measures have induced the scale and pattern of manufactured goods export growth observed over these years? What other factors might plausibly account for this performance? And what are the implications of the experience with manufacturing export success for policy strategy?

In the 1980s the emphasis in assistance to manufacturing industry in Australia shifted from protection to export promotion and in some sectors (most notably in the automobile industry) schemes were introduced which allowed offsets on duties (for example, on imported cars and components) against value added in exports. If policy intervention shifted towards assistance of export activity and compensation of exporters against the costs imposed by protection, there is no reason to doubt that the effect would be positive on exports. In some sectors, such as automobiles and pharmaceuticals, industry-specific policies clearly had quite significant effects on the incentive to export. It is another question as to what was the nature and importance of the link between these policies and the scale of export growth. And it is another question still as to whether the impact of these policies was welfare improving or less costly in the use of national resources than alternative policies (Pomfret 1996).

Some argument and evidence (Gruen 1993; Albon 1992) suggests positive, if limited, social gains from the export facilitation arrangements for the automobile industry, at least compared with the policy regime that applied before these arrangements were introduced. This is, of course, a weak test of benefit.

The more basic question is whether these policies can be presumed to have caused the rapid growth of manufactured goods exports, as distinct from being associated with some growth in manufactured goods exporting. Sheehan, Pappas and Cheng (1994, Ch. 3) make a number of important observations about this question by browsing over Australia’s manufacturing export trade between 1985 and 1993. They identify two components of manufactured goods exports: policy assisted manufactures and other manufactures. They define policy assisted manufactures to include six commodity categories in which ‘non-price’ forms of competition are particularly important, where oligopolistic forms of industry organisation are widespread and where, partly as a consequence of these features, industry policies specific to the particular commodity or associated industry have been in place in Australia for some or all of the period under review. Policy assisted manufactures include: pharmaceuticals, computing equipment, telecommunications equipment, road motor vehicles, other transport equipment and clothing. Sheehan, Pappas and Cheng compare the export growth of policy assisted manufactures with that of other manufactures and observe
that the former grew faster. All comparisons in their study are in constant price terms, an aspect which tends to inflate growth performance in sectors (such as computers) in which there is rapid technological change and prices are coming down. One concern is that the huge growth in Australia’s manufactured exports is heavily influenced by growth in this single category (computer equipment) exports of which grew at an annual rate of 26 per cent between 1985 and 1993 (Pomfret 1996). Failure to treat this sector separately might distort the whole story.

A fundamental problem is how to validate the bifurcation of exports of manufactures into policy assisted manufactures and other manufactures. We shall return to this problem shortly.

Accepting the distinction made by Sheehan, Pappas and Cheng, we re-state their analysis taking into account the question that has been raised about computer equipment, comparing export growth in this sector separately. Figure 12 compares the export growth rates of policy assisted manufactures, computer equipment, and other manufactures. The growth rates for each sector are adjusted to separate out the effect of East Asian import

Figure 12  Comparison of export growth rates between policy-assisted and non-assisted manufactures (percentage change)

Notes: The definition of policy-assisted and non-assisted manufactures follows Sheehan, Pappas and Cheng (1994). The conversion of UN trade data is made from SITC3 to SITC1 according to the conversion table provided in the Sheehan, Pappas and Cheng study (1994). Policy-assisted manufactures include SITC1 54, 61, 65, 71, 714, 724, 731, 732, 733, 734, 735 and 84.

Source: UN trade data, International Economic Databank, Australian National University.
growth in each category and a three-year moving-average of annual growth rates is calculated to isolate which of these groups improved their penetration of the East Asian market most consistently.

Clearly, computer equipment dominates the improvement in East Asian market share. Policy assisted manufactures also do better than other manufactures. At the same time, there is a very strong convergence of trend performance across all three sectors, a feature which is suggestive that the same forces affected competitiveness across all manufacturing industry in the same direction. More detail on the timing, scale and impact of industry policy measures is needed to support any strong conclusions about the degree to which assistance was critical to manufactured goods export performance.

The nub of the problem with the Sheehan, Pappas and Cheng comparisons is with how the distinction between policy assisted and other manufactures is made. There are no measurable criteria by which industries are assigned to each category. It is a matter of judgment and the test of replicability is not easily satisfied. Even if interventionist government policies have stimulated exports of manufactures, as a priori we would expect them to, Sheehan, Pappas and Cheng do not provide quantitative or other evidence of the magnitude of the link between the strong growth of manufactured exports and particular policy measures in their study. And, as Pomfret (1996) notes, ‘the case would still have to be made that the net social benefits were positive’.

Export promotion measures include both general export subsidies, such as the export development grants scheme, and industry specific measures, such as the automobile industry export facilitation scheme. These measures have become more prominent as levels of import protection have declined. But they are an insignificant component of total assistance to Australia’s manufacturing industry, accounting for much less than one per cent of total assistance in 1994 (Industry Commission 1995b). A test of the impact of government assistance on manufacturing sector performance ought properly encompass analysis of the association between all effective industry assistance and export share. We attempt a preliminary analysis of this kind below.

If government assistance measures are thought to promote export performance in manufacturing a positive relationship between levels of assistance and export share might be expected over time. We test this relationship by associating measures of effective assistance to twenty industry groups over the period 1984–85 to 1993–94 and their shares in East Asian and world export markets. The data, obtained from the Industry Commission (1995) and IEDB, are in panel form (a combination of time-series and cross-sectional data). We regress
the level of assistance on Australia’s market share in East Asian and world imports with 19 dummy variables included to account for the variations in market shares for different industry groups. The purpose here is to estimate the effect of changes in the industry assistance over time on export performance.

Ordinary least square (OLS) is initially applied to estimate the two equations (one for Australia’s market share in East Asia and the other for Australia’s market share in the world) and tests of heteroskedasticity are performed. In both regressions, the test results show that there are heteroskedasticity problems with the data. These problems are corrected by using White’s (1980) heteroskedasticity-consistent covariance matrix (OLS based) estimation for unknown form of heteroskedasticity. The regression results are detailed in Table 6.

The results of these regressions show the level of assistance to manufacturing industry to be negatively (not positively) associated with export shares. In both cases, this negative relationship is statistically significant, implying that, for the manufacturing industries selected here, export performance was enhanced by the reduction of government assistance to manufacturing industry over this period. The results indicate that a one per cent reduction in industry assistance is associated with a 0.2 per cent increase in East Asian market share and a 0.5 per cent increase in world market share.

The level of industry aggregation used in this analysis is dictated by the availability of comparable data on measures of effective assistance and export shares. The industry categories include some less elaborately transformed manufactures and are not strictly comparable with those used in other studies such as Sheehan, Pappas and Cheng (1994). The analysis needs extension, incorporating other variables to explain changes in market shares and the direction of causation between these variables may be open to question. But the results are plausible.

In brief, the analysis provides some tentative evidence of the negative effects of government assistance to manufacturing on trade performance as well as evidence of the therapeutic effect of lowering government assistance to manufacturing on manufacturing export performance. These results are consistent with earlier work by Krause (1984), who observed that Australian manufactured goods export performance was negatively related to government assistance. They are also consistent with the expectation that trade and micro-economic reform over the past decade worked to improve industrial competitiveness. And they are not inconsistent with arguments advanced elsewhere (Menzies and Heenan 1993) that economic reforms encouraged re-orientation of manufacturers towards export markets with ‘beachhead’ and ‘demonstration’ effects that lifted market shares.
Conclusions

We set out to ascertain why Australia’s share in East Asia’s import market has declined and whether the sharp decline observed in market share over the last decade and a half or so was a consequence of declining competitiveness in East Asian markets.

Table 6  Regression of effective industry assistance on Australia’s market shares in East Asia and in the world, by industry groups

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variable = log of market share in East Asia Coefficients</th>
<th>t-ratio</th>
<th>Dependent variable = log of market share in world Coefficients</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log (assistance level)</td>
<td>-0.22</td>
<td>-2.31</td>
<td>-0.50</td>
<td>-6.65</td>
</tr>
<tr>
<td>D1 (Other textiles)</td>
<td>1.84</td>
<td>7.84</td>
<td>0.96</td>
<td>12.57</td>
</tr>
<tr>
<td>D2 (Knitted products)</td>
<td>1.18</td>
<td>4.10</td>
<td>1.12</td>
<td>9.69</td>
</tr>
<tr>
<td>D3 (Clothing)</td>
<td>-0.14</td>
<td>-0.52</td>
<td>-0.06</td>
<td>-0.42</td>
</tr>
<tr>
<td>D4 (Footwear)</td>
<td>-0.59</td>
<td>-2.16</td>
<td>-0.51</td>
<td>-3.87</td>
</tr>
<tr>
<td>D5 (Wood products)</td>
<td>4.33</td>
<td>16.11</td>
<td>2.38</td>
<td>18.07</td>
</tr>
<tr>
<td>D6 (Paper products)</td>
<td>2.15</td>
<td>8.62</td>
<td>0.03</td>
<td>0.24</td>
</tr>
<tr>
<td>D7 (Chemicals)</td>
<td>2.13</td>
<td>8.11</td>
<td>1.16</td>
<td>7.27</td>
</tr>
<tr>
<td>D8 (Glass products)</td>
<td>1.71</td>
<td>5.86</td>
<td>0.26</td>
<td>1.37</td>
</tr>
<tr>
<td>D9 (Refractors and ceramics)</td>
<td>2.27</td>
<td>6.98</td>
<td>-0.48</td>
<td>-2.07</td>
</tr>
<tr>
<td>D10 (Cement)</td>
<td>-0.17</td>
<td>-0.35</td>
<td>-1.57</td>
<td>-4.61</td>
</tr>
<tr>
<td>D11 (Non-metallic minerals)</td>
<td>2.76</td>
<td>11.41</td>
<td>0.85</td>
<td>5.76</td>
</tr>
<tr>
<td>D12 (Iron and steel)</td>
<td>2.67</td>
<td>10.52</td>
<td>1.37</td>
<td>11.65</td>
</tr>
<tr>
<td>D13 (Non-ferrous metals)</td>
<td>4.12</td>
<td>10.53</td>
<td>1.70</td>
<td>5.63</td>
</tr>
<tr>
<td>D14 (Non-ferrous fabricated)</td>
<td>0.98</td>
<td>2.69</td>
<td>0.47</td>
<td>2.15</td>
</tr>
<tr>
<td>D15 (Metal manufactures)</td>
<td>2.59</td>
<td>10.92</td>
<td>0.89</td>
<td>8.25</td>
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<tr>
<td>D16 (Motor vehicles)</td>
<td>1.70</td>
<td>6.97</td>
<td>0.37</td>
<td>4.26</td>
</tr>
<tr>
<td>D17 (Other transport equipment)</td>
<td>1.35</td>
<td>4.30</td>
<td>0.37</td>
<td>2.17</td>
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<td>D18 (Other machinery)</td>
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<td>5.50</td>
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<tr>
<td>D19 (Other manufactures)</td>
<td>1.83</td>
<td>7.48</td>
<td>0.47</td>
<td>4.02</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.55</td>
<td>-3.98</td>
<td>-0.24</td>
<td>-0.79</td>
</tr>
</tbody>
</table>

R-square adjusted = 0.92  R-square adjusted = 0.93
Number of observations = 200  Number of observations = 200
SSE = 32.82  SSE = 14.51

Notes: OLS estimation using White’s (1980) heteroskedasticity-consistent covariance matrix. Alternatively, we used Kmenta’s (1986) approach to estimate the equations. This estimation also confirmed that a significant negative relationship exists between market shares and level of effective assistance. The benchmark industry in the cross-sectional analysis is textile fabric and yarn.
The short answer to these questions is that it was the commodity structure of import growth in East Asian (and world markets) that specially disadvantaged Australian exporters of agricultural commodities and minerals and fuels in these years. Stagnation in Australia’s traditional export markets in the 1980s threatened stagnation in economic growth. This circumstance was a catalyst to large-scale policy reform in the 1980s.

The analysis suggests that these reforms seem to have facilitated transformation of Australia’s trade structure and position in the East Asian market. Overall share in that market did decline substantially. While average export competitiveness increased, all the improvement in competitiveness was located in the minerals and fuels sector. This was the sector most seriously affected by the structure of change in East Asian import demand. Competitiveness declined substantially in agriculture, and declined a little in manufactures. Nonetheless, in this sector and others, internationalisation of the Australian economy inevitably involved a strong re-orientation of Australian exports towards East Asia, so strong was the effect of import expansion in East Asia’s markets.

There was a huge growth of East Asian manufactured goods imports between 1985 and 1994. Although Australia lost a little market share in this sector, the net effect was to lift manufactured goods export growth and substantially transform the structure of Australia’s export specialisation. Between 1985 and 1994, Australia’s share in East Asia’s import markets increased in each major export category, except agriculture, at the same time as overall market share declined. However, after taking account of the geographic structure of import growth, the only sector in which competitiveness increased was minerals and fuels.

The strength of East Asia’s growth of manufactured goods imports transformed the profile of Australia’s manufactures exports. Whether ‘the historic change’ in Australia’s trade performance in manufactures after 1985 was driven more by industry specific policies than by reform and liberalisation is another question. The evidence that industry specific policies were decisive in the turnaround of performance in the manufacturing sector is not persuasive. The evidence from constant market share analysis suggests that most of the growth of Australia’s manufactured goods exports in this period was induced by the rapid growth of East Asia’s imports. We provide some evidence, through analysis of the relationship between government assistance to industry and export performance, that high levels of assistance inhibited exports and that reductions in industry assistance stimulated export performance.

These conclusions are preliminary but they do give support to the policy strategies that were put in place to cope with the serious structural problems that confronted Australia’s
external trading in the 1980s. And they provide encouragement to continue the program of trade and micro-economic reforms that appear thus far to have borne some positive results, most obviously in the performance of the minerals and fuels sector. Without a major shift in the structure of East Asia’s and international trade growth — and it is unwise to bank on such good luck — improving competitiveness in established and new export areas, notably manufactures and services, represents the only way to arrest the decline in Australia’s share of East Asia’s import market and to capture the full potential of the East Asian economic opportunity.
Notes

1 These data are Australian export data. In later analysis of Australia’s performance in East Asian markets, East Asia’s imports from Australia are compared with East Asia’s imports from other countries.

2 In 1985 East Asia’s imports of Australia’s manufactures were US$1.5 billion and in 1994 they were US$7 billion.

3 These commodity groups are defined as follows:
   
   Agricultural goods include: SITC 0, 1, 21, 22, 23, 24, 25, 26, 29 and 4.
   
   Minerals and fuels include: SITC 27, 28, 3 and 68.
   
   Manufactures include: SITC 6, 61, 62, 63, 64, 65, 66, 67, 69, 7, 8 and 9.

4 The twenty industry groups analysed include: ASIC 234 (textiles — fibres, yarns and fabrics); ASIC 235 (other textiles); ASIC 244 (knitting products); ASIC 245 (clothing); ASIC 246 (footwear); ASIC 25 (wood products); ASIC 26 (paper products); ASIC 27 (chemicals); ASIC 285 (glass and glass products); ASIC 286 (clay products and refractories); ASIC 287 (cement and concrete products); ASIC 288 (other non-metallic mineral products); ASIC 294 (basic iron and steel); ASIC 295 (basic non-ferrous metals); ASIC 296 (non-ferrous metal products); ASIC 31 (fabricated metal products); ASIC 323 (motor vehicles and parts); ASIC 324 (other transport equipment); ASIC 33 (other machinery); and ASIC 34 (misc. manufacturing products). Because the data for effective assistance to industries are based on financial years and trade data on calendar years, there is a half-year gap in these two reported series. No adjustment is made to the data for this gap. It may capture some lagged effect of reductions in assistance on export market share.
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