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IV. The economic impact of migration in Australia

Introduction

Migration has played a crucial role in the development of Australia's society and economy. The nature of migration flows has for a long time been the subject of deliberate policy by the Australian authorities – Australia's geographical position and structure indeed give more opportunity for active and fairly precise control over migration flows than is available to almost any other OECD country.

This chapter looks at migration and its interactions with economic developments and economic policies in Australia. After a brief survey of the past history of immigration into the country over the last century, the evolution of immigration policy and the detail of existing arrangements are outlined, covering both entry policy and the situation of migrants once in Australia. The economic aspects of immigration are dealt with in terms of their impact on the labour market, on output and incomes, on public finances and on trade and the balance of payments.

A concluding section suggests that, insofar as migration policy is assessed in terms of its economic effects in Australia, current policy is effective. It is not obvious that there would be noticeable economic benefits to existing Australians if there were higher average inflows, even if there are some plausible but difficult to verify arguments that suggest this, nor that there would be significant economic costs. In the second half of 1990s, tighter criteria for entry as a skilled migrant, intended to improve labour market outcomes among immigrants, reduced the proportion of the lower skilled in permanent immigration. Restrictions on eligibility for certain welfare have some budgetary effect but probably little effect on incentives for most migrants. Labour market arrangements, notably the relatively high minimum wages, may make the integration of some humanitarian and family immigrants slower than necessary. More flexibility in the award system might not only improve the working of the labour market generally, but also accelerate the integration of lower skilled immigrants (and Australians) into the job market.

*The composition of Australia's population*²¹⁴

About one quarter of Australia's current population of 19 million was born outside Australia, while around 40 per cent are either an immigrant or the child of an

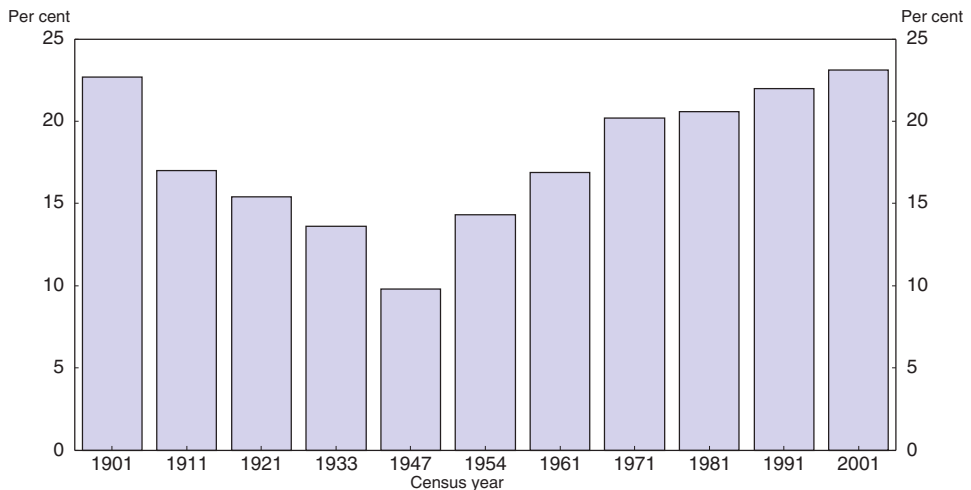
immigrant. Just over two per cent of the population is estimated to be of aboriginal or Torres Strait Islander origin. Of the working age population, almost one in three was born abroad, as were one-third of the over-65s. Among OECD countries only Luxembourg exceeds these levels, while Switzerland is comparable.²¹⁵

In 2001 the proportion of overseas-born in the population was about the same as a century earlier, having reached a low at the end of the second world war and then increased almost continuously (Figure 41). The national origin of the overseas-born also began to change quite significantly from the 1960s onwards, with further reductions in the share of UK-born citizens and a much greater diversity of other immigrants (Figure 42). Furthermore, their age relative to the Australian born declined, though remaining substantially higher – in June 2000 the median age of the total population was 35 years, that of foreign born residents was 45.

Recent inflows and outflows

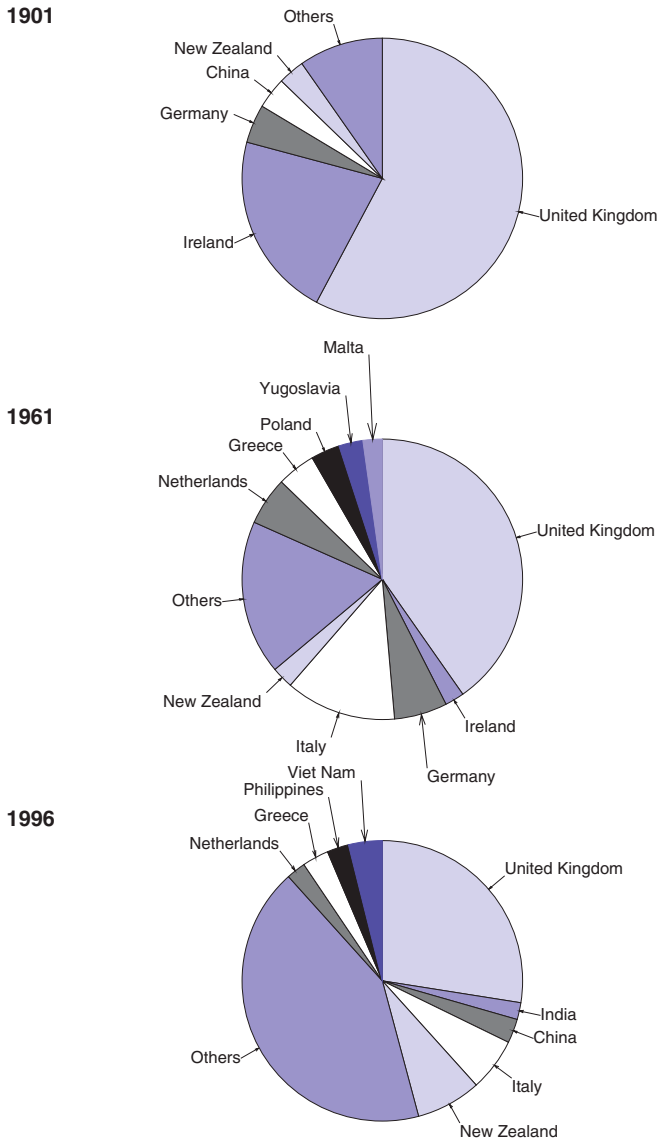
Until the early 1970s, permanent migrant inflows consisted overwhelmingly of settlers of European origin, with the ex-colonial link with the United Kingdom²¹⁶ showing clearly – in the 1960s, 45 per cent of immigrants still came from the United Kingdom and Ireland. After the second world war and up

Figure 41. **Overseas-born as a percentage of the total Australian population**



Source: Department of Immigration and Indigenous Affairs.

Figure 42. Foreign-born by origin, principal countries at birth at selected censuses¹



1. Only countries whose share of foreign-born population exceeded 2 per cent are shown.
 Source: Department of Immigration and Indigenous Affairs.

until the 1970s, the most significant change was an increase in the share of immigrants coming from non-English speaking European countries such as Italy, Greece, Yugoslavia and Turkey. Subsequently there has been a considerable inflow from a number of south-east Asian countries, notably Vietnam, the Philippines and China, as well as from India and South Africa, and from New Zealand. New Zealand and Australia operate a common labour market under the Trans-Tasman Agreement with flows in both directions which are quite sensitive to relative economic conditions in New Zealand, Australia and the rest of the world. While the increase in inflows from New Zealand during the 1990s was dramatic, a record net inflow in 1999-2000 only slightly exceeded the previous peak reached in 1988-89, whereas in 1991-92 there had been near balance with inflows of about 9 000 New Zealanders only just exceeding outflows.²¹⁷

Net immigration has been increasingly important for population growth relative to births, and it is expected that its relative importance will rise given current levels of fertility. In recent years the importance of “long-term temporary” inflows (those without permanent visas but intending to stay for more than one year) has increased. Thus, in 2001-2002, net inflows of permanent migrants were around 40 000 (89 000 arrivals and 48 000 departures) but net inflows of long-term temporary migrants were higher at 93 000 (264 000 arrivals and 171 000 departures). Of the net population gain of some 99 000 from migration in 1999-2000,²¹⁸ 86 500 people were of working age, *i.e.* about one in four new entrants to the working age population are immigrants.^{219, 220} Since the second world war, some 6 million settlers have arrived in Australia, and the resident population has grown from about 7½ million to some 19 million by 2001 (Figure 43).

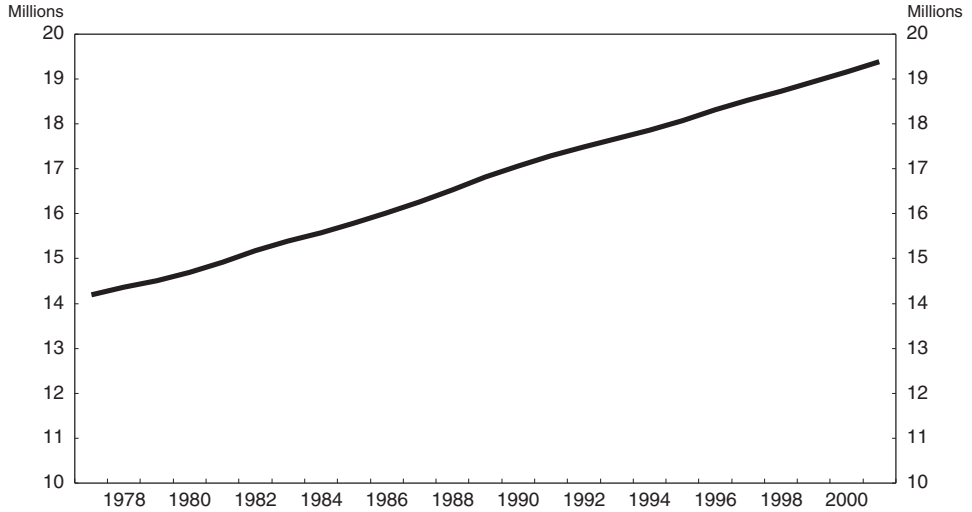
The Australian-born emigrate too, mostly to English-speaking countries; in recent years around one third went to the United Kingdom, around 15 per cent to the United States and some 10 per cent to New Zealand; 20 per cent go to Asian countries. These data are for long-term departures, meaning an intended stay of over one year; it is not clear what proportion intend to permanently settle abroad. Emigrants are more likely to be female than male.²²¹

Migration policy

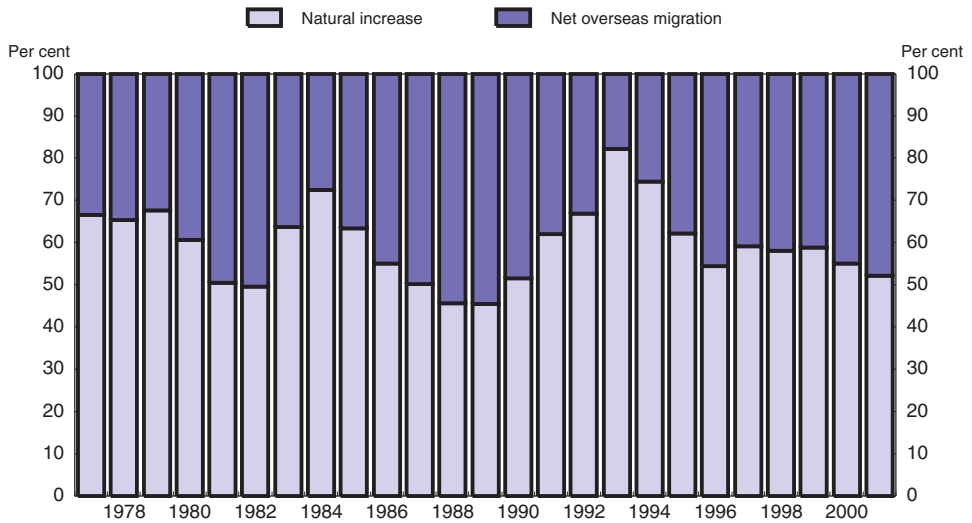
From the end of the second world war until the early 1970s, immigration policy was active, involving subsidised passage schemes for emigrants from a number of European countries (mainly the United Kingdom and Ireland but at various times also including Greece, Italy and Turkey). Immigration during this period continued to be “whites only”, with very few exceptions. Beginning in the mid 1960s and definitively in the early 1970s, the whites only policy was abandoned, although overall numbers were reduced after 1972 in response to rising unemployment. The increase in immigration from Asian and other non-traditional countries arose partly from this change in policy and partly from a series of asylum

Figure 43. **Population growth: natural increase and net migration**
1977 to 2001

A. Total population



B. Share of natural increase and immigration in population growth



Source: Australian Bureau of Statistics.

seeker flows from Vietnam and then from other countries *via* an active policy of re-settling refugees.

The current set of arrangements, broadly in place since the early 1980s, distinguishes three basic elements in the types of visas issued to entrants to Australia:²²² first the distinction between permanent settlement and temporary stay, secondly between short-term and long-term temporary stays, and thirdly whether holders of (short- or long-term) temporary visas have the right to take employment. In turn, permanent settlement visas are awarded under three programmes: humanitarian, family reunion and skill (Table 27).

Only the permanent migrant flow is subject to an overall ceiling on inflows; this is applied under three main categories of immigrant – family, skill and humanitarian – and relates to gross permanent inflows rather than to overall net flows, which are affected by the balance of the large temporary flows as well as permanent departures or emigration. During the 1980s the planned intake of permanent migrants grew, reaching 145 000 (0.8 per cent of the population) in 1989-90, but was cut back again for most of the 1990s to around 0.5 to 0.6 per cent of the population. In the expansion of the 1980s the skill stream expanded relatively faster than the family category and both were subsequently squeezed in the early 1990s (Figure 44). But, the expansion since the mid-1990s has been heavily weighted towards the skill stream. The range of family connections that give rise to eligibility to apply for permanent settlement has been restricted, and what had been known as the “concessional” family stream became subject to a more targeted points test to improve skill levels for this group and included in the skill stream.

These changes increased the proportion of permanent immigration over which short-term control can be easily exercised; controlling the skilled inflow can be achieved by varying the level required in the points test described below. But in the 1990s, the number of long-term temporary entrants increased rapidly even while the numbers gaining permanent residence under the Migration Programme were being restricted; this reinforces the tendency to align entry policy on labour market conditions, since entry on a long-term temporary visa is largely conditional on being appointed to a specific job or on business activity (and the visa is liable to be rescinded if the person becomes unemployed or ceases to meet the business conditions) (Figure 45). This may have contributed to the apparent negative correlation between unemployment and migration inflows. Net inflows of temporary entrants probably cannot continue to rise rapidly if the flows are indeed temporary (the maximum duration of such visas is 4 years, although they can be renewed); some of the increase in the permanent programme between 2001/2002 and 2002/2003 is likely to be used by skilled people already in the country on temporary visas, particularly successful overseas students.

The central part of the process of selection for skill-stream permanent migrants is the points test. This assigns points according to a number of characteristics

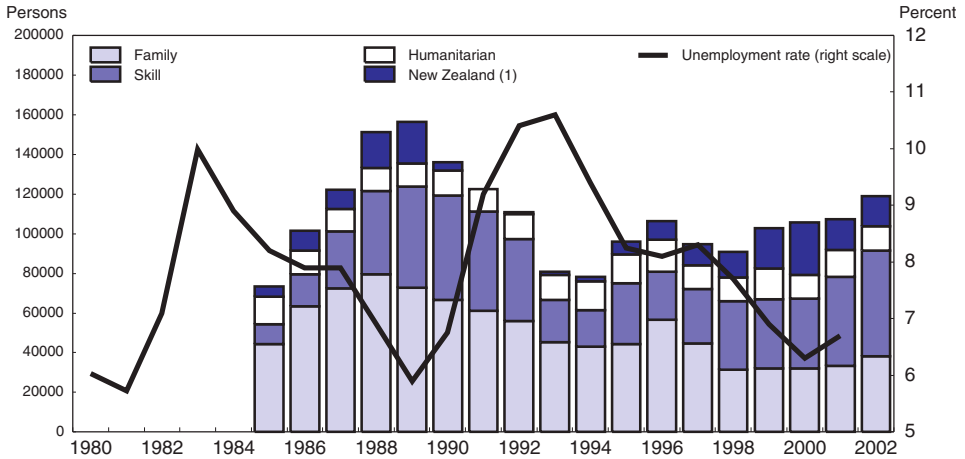
Table 27. Types of entry visa for Australia (2000 to 2001)

	Short term		Long-term temporary		Permanent settlement		
	Tourism	Other (short-term business, etc)	Students 3 months to 5 years	457 visa class > 3 months up to 4 years	Humanitarian (once accepted) Onshore and offshore	Family	Skill ¹
Number issued in 2000/1	3 598 792	260 383 (Business Visitor Visas) 76 500 (working holiday-offshore)	146 577 86 277 offshore	40 136 17 178 offshore	13 733 7 992-offshore	33 470	44 730 37 085-offshore
Average length of stay	Not available	Not available	3 years estimated	3 yrs	n.a.	n.a.	n.a.
Percentage with right to work (of which restricted)	0	100% with limited right to work	43 755 ² students granted PTW	100% with conditions. No conditions on dependants	100	100	100
Points system applied	No	No		No	No	No	Yes ³
Occupation list applied	No	No		No	No	No	Yes
Labour market test applied	No	No		No – Salary and skill level criteria to meet	No	No	Yes ⁴
Eligibility for social security benefits, public health care	Public health care available to nationals of countries which Australia has reciprocal agreements with	Public health care available to nationals of countries which Australia has reciprocal agreements with	No	No	Immediate	After 2 years ^d	After 2 years ^d

- This category includes 6 404 visas granted under the Employer Nomination Scheme (ENS) and Labour Agreements, 1 021 visa grants under the Regional Sponsored Migration Scheme (RSMS), 85 visa grants under the State/Territory Nominated Independent (STNI) category, and 7 364 visa grants under the Business Skills Class.
 - All students can apply, but if granted, permission to work is limited to 20 hours per week while the course in which they are enrolled is in session. Dependents can also apply for permission to work, if granted this is generally a flat 20 hours per week, however, dependants of masters/doctorate students have no restriction on the hours that they are able to work if granted permission to work.
 - Business Skills Class visas are assessed under a different points test to other classes in this category. The ENS, RSMS, Distinguished Talent and STNI visa categories are not points tested.
 - Labour market testing is undertaken for ENS. There are, however, exceptions for some ENS cases, *i.e.* if the position is on the Migration Occupations in Demand List (*e.g.* senior academic or religious workers), the visa applicant can put up a case to show that there is nothing to be gained by labour market testing. Business Skills Class visas and Labour Agreement visas are not labour market tested.
- a) A special social security benefit, below the level of normal benefits and highly means-tested (on both income and wealth), exists for immigrants who find themselves in severe difficulties during the first two years.

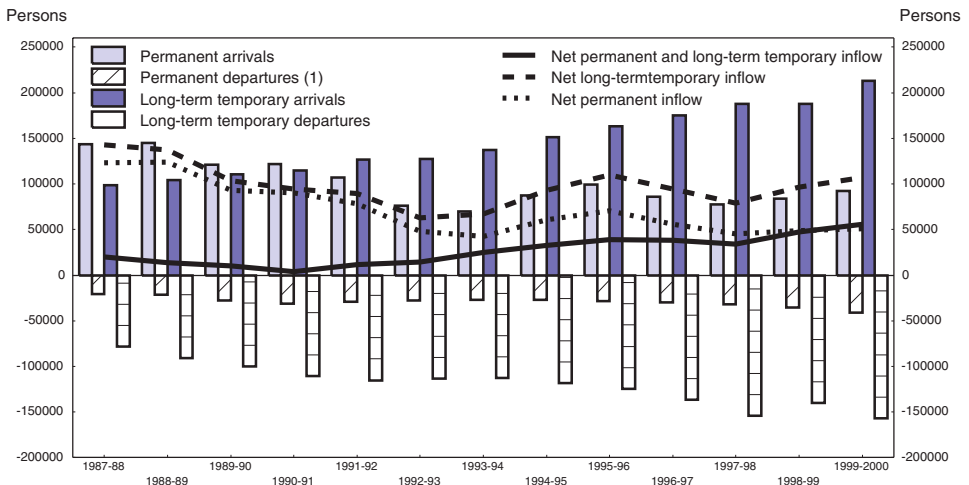
Source: Department of Immigration and Multicultural and Indigenous Affairs.

Figure 44. Permanent migration by main visa category



1. Net permanent arrivals from New Zealand. The 1991 figure was -1 527 i.e. permanent departures for New Zealand exceeded arrivals from New Zealand.
 Source: Department of Immigration and Indigenous Affairs.

Figure 45. Net permanent and long-term temporary migration, 1987-2000



1. Includes departures of both foreign-born and Australian-born.
 Source: Hugo (2002).

of which the main ones are the level of education, age and English language skills. Under each of these headings the maximum number of points available is 60, 30 and 20 respectively, out of a maximum possible of 145 (including points available under a number of other headings; see Annex IV for more detail²²³). Additional points in one heading can make up for shortfalls in others, subject to threshold requirements in most cases.²²⁴ The minimum requirement for 2002-03 is 115, up from 110 in 2001-02. A number of schemes give additional points or vary the required score, including those related to specific occupations (the MODL or migration occupations in demand list) and to specific destination regions in Australia. There are also occupation-specific schemes where the points test is not applied, although some “basic requirements” of educational level, English language proficiency and work experience are necessary; under this heading the Skill Matching database is used to circulate the details of potential immigrants to regions and employers who may wish to nominate them if they have a specific need. The Employer Nomination Scheme allows for a relatively small number of non-points tested admissions, where employers have made specific agreements with the immigration authorities to recruit people with particular skills. An important part of the skill stream, known as business skills, is designed to admit entrepreneurs or potential entrepreneurs willing to invest in the Australian economy.

The points test may be the most visible development in Australian immigration policy, but a majority of permanent immigrants still enter on visas without points testing. Most of these enter through family connections, but more than 10 per cent of total permanent settlement visas are allocated on humanitarian grounds. The Employer Nomination Scheme also allows for a relatively small number of skilled but non-points tested admissions, where employers have made specific agreements with the immigration authorities to recruit people with particular skills. Long-term temporary visas are issued without a points test; they are granted under a number of programmes, may be valid for up to four years (five years for students) and may also be renewed. Temporary visas may be increasingly viewed as improving the chances of getting a permanent visas since they help to acquire attributes useful under the general skills scheme – from education, work or business experience. The working holiday scheme also attracts large numbers of young people who often work for short periods in agriculture or the hotel and catering industries; this may also serve as a recruiting ground for future permanent applications.

Integration policy

For as long as immigrants were predominantly of UK-Irish origin, similar to the existing Australian population, “integration” was relatively unproblematic. Agreements to resettle displaced Europeans after the war led to the first large influx of non-English speaking immigrants, and assisted passages were also made

available to some migrants from these countries, notably from Italy and Greece. Many such immigrants were recruited to work on the Snowy Mountains scheme, a major hydroelectric construction project where immigrants made up two thirds of the workforce during the 1950s; a major effort was undertaken, in part for safety reasons, to teach English to these immigrants and this led to the establishment of the Adult Migrant English Programme (AMEP).

A range of measures exists to help humanitarian entrants, including English-language tuition and special support for those who may have suffered trauma prior to arrival. In the case of non-humanitarian visa holders, a significant policy measure after arrival in Australia directed explicitly towards integration of immigrants (accounting for more than half of the Department of Immigration and Multicultural and Indigenous Affairs' direct expenditure on non-humanitarian immigrants) is English-language tuition for non-native English speakers. They are granted up to 510 hours of classroom tuition which can be taken immediately or later on²²⁵ (and can also be interrupted and completed later).²²⁶ There are a number of other smaller programmes.²²⁷ Otherwise immigrants are directed to "mainstream" services such as health, housing, education and labour market access.

The intention is that all these services are able to give appropriate attention to the needs of immigrants rather than having separate immigrant-specific programmes. To assist in this, a wide range of material on provision and access to government services is published in languages other than English and grants are available to ethnic organisations to subsidise support to their communities. The idea of "Multicultural Australia" is considered to be very important, hence resources are put both into supporting immigrant-origin based community organisations and into services to assist integration. Many of these organisations are grouped into state- and Commonwealth-wide umbrella groups who are consulted on immigration policies.

As in other countries, racist sentiment against many of the recent arrivals does exist, as it did in the past against many of the now more well-established communities, and the indigenous population as a group suffer too, probably more than immigrant groups.²²⁸ There are particular concerns about local concentrations of immigrants in some areas. This concerns mainly certain suburbs of Sydney and Melbourne, respectively the largest and second-largest cities in Australia. Relatively high unemployment and low incomes characterise these areas, yet they remain attractive to immigrants: recently, 600 humanitarian asylum-seekers, mostly from Afghanistan and detained while their applications were being processed, were given temporary protection visas and released in areas seeking more migrants and population growth, but not in Sydney. Within 6 months over 60 per cent of them had moved precisely to these areas of ethnic concentration. However, the tendency of some ethnic groups to concentrate in particular areas has been a transitory phenomenon.

In the longer run, what matters more than the existence of such immigrant concentrations *per se* is whether immigrants attracted to them for the family or social and cultural support that they give²²⁹ may subsequently be disadvantaged. Children of immigrants in such areas do have low levels of educational achievement, but the important question is whether they are lower than the same children would achieve elsewhere. There is no direct evidence on this for Australia. However, work on “ethnic enclaves” in the United States suggests that this may be the case: residence in such areas tends to lower the English language ability of immigrants (from non-English-speaking countries) and their children, which in turn is associated with lower educational achievement (see Chiswick and Miller, 2000). As the same authors note, however, the other benefits that immigrants get from at least initial residence in such areas may outweigh linguistic disadvantages; Chiswick *et al.* (2002a) also observe that immigrants with higher linguistic ability tend to avoid these areas in the first place, perhaps biasing average achievement levels downwards. Despite these problems, it is nevertheless observed in the PISA study that the combined reading and mathematical scores attained by Australian children are high, and vary little according to whether the child is an immigrant, a second generation immigrant, or Australian-born of Australian-born parents. This suggests that the educational system overall performs quite well for foreign-born children taken together, though the relatively high education level of some immigrants may obscure lower achievement levels among the children of the low-skilled and/or low English-language ability immigrants.

Given the strong forces that seem to lead almost universally to geographical concentration of immigrant groups²³⁰ it seems unlikely that policy directed to avoiding concentrations *per se* would be useful, rather policy needs to focus on specific problems due to clustering that may hamper eventual integration.²³¹

The goal of immigration policy – steering a path between competing interests

The formation of immigration policy cannot be said to be aiming for any one particular goal: the stated aim is that it should be in the interests of “all Australians”,²³² which in practice means balancing the views of different groups. These are taken into account by the Government each year in consultations with a wide range of organisations, and this has led to quite frequent modifications of the overall size and composition of the immigration programme. The Government also sponsors²³³ a range of research work on policy-related issues, frequently basing policy changes explicitly on the results on such work. In recent years, much of this work has concentrated on economic issues.²³⁴

Employers’ organisations tend to be in favour of higher immigration flows than in recent years, believing that this encourages a growing home market, and are in favour of promoting higher-skilled flows.²³⁵ Trade unions appear to be less concerned with whether the figure for immigration is too high – it might be

expected that they would be concerned about the effect on wages – as with ensuring that labour market regulations are respected.²³⁶ Trade unions are however among those expressing doubts about whether the increasing emphasis on skilled immigration is either, on the one hand, a reflection of inadequate education and training provision in Australia itself or, on the other hand, reducing opportunities for skilled Australians.²³⁷ Environmental groups have begun to argue that at least some areas, principally around Sydney, of Australia are now so populated that the environment cannot safely support increased numbers. The concern of many ethnic organisations is to increase immigrant numbers to allow more family members to come from their countries of origin.

Economic aspects

Labour market outcomes

On the labour market, immigration of people of working age increases the supply of labour and might thus be expected to exert downward pressure on wages in the short run, other things being equal. It is clear that in Australia other things are not generally equal, notably investment behaviour. Since immigration is a permanent characteristic of the economy, investment decisions can be presumed to be based implicitly on an assumption of a continuing increase in the supply of labour, with the impact of immigration not very different (in these aggregate terms) from that of the natural increase in population. Hence the accumulation of capital proceeds along with migration, and there is no fall in the capital to labour ratio that might cause a decline in wages. One might nevertheless expect that wages (or unemployment) might be affected in the short run by significant variations in immigration around its longer-term trend.

Indeed, the main variations in flows of permanent migrants into Australia occur through policy changes: there is generally “excess demand” for entry, so changes in actual flows are determined by the number of visas the authorities make available. As seen earlier, some of the major swings in the overall numbers of immigrants accepted have been in response to labour market pressures: inflows have been reduced in periods when unemployment increased – in 1971-75, again in the early 1980s and also the early 1990s.²³⁸

Studies that have been undertaken of the impact of migration flows on wages, for Australia and for many other countries, come up with mixed results. Some show little or no effect of any kind, some show a positive effect of immigration on wages and some show the “expected” negative effect. Of whichever sign, the effect is rarely strong or precisely estimated.²³⁹ Labour market institutions could prevent wages from adjusting easily to supply and demand, however. In Australia this may well have been the case in the past, and though the labour market is now more flexible the system of award wages puts a floor on wages in many sectors. Approximately 23 per cent of workers in occupations covered by award

wages actually earn the minimum wage for their sector. This clearly truncates the wage distribution (at least for the relatively unskilled) and potentially obscures the effect of changes in labour market conditions, in this case an increase in supply, on wages, since they can only adjust downwards at the lower end of the scale if the award wage is modified. This phenomenon is not specific to migrants but would apply equally to all participants in the labour market. However, while the award system might modify the impact on wages of an increase in the supply of labour (though not, in itself, the effect of a reduction in supply), the effect of this ought to be felt in unemployment – if the wage does not adjust under pressure from supply changes, the unemployment or participation rate should do so. However, recent literature is unable to demonstrate that this occurs in Australia.²⁴⁰

Thus, although many feel that immigration should be cut back when the labour market is slack and that it can be increased when unemployment is relatively low the statistical evidence on the relation between migration and wages or unemployment has not been able to show conclusively that this is necessary to avoid exacerbating labour market problems. This lack of evidence across many countries may be due to the fact that migration flows themselves respond to labour market pressure,²⁴¹ either spontaneously or through policy changes as in Australia, or because the capital stock adjusts quite quickly in the short run, but it is difficult to choose between these and other possibilities on the available evidence.²⁴²

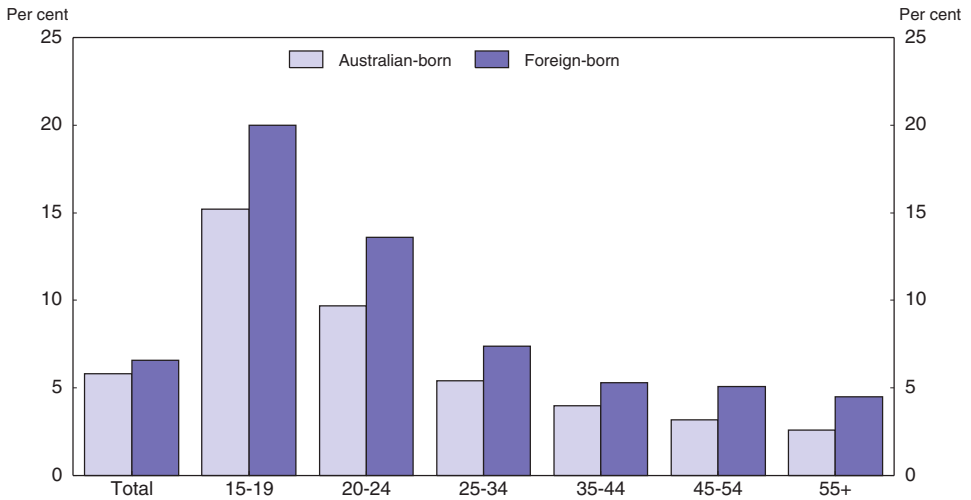
Finally, many immigrants arrive with a substantial amount of saving which they use to establish themselves, thus adding to aggregate demand at the same time as to supply. This is particularly true for those entering under the business skills scheme, who commit themselves to invest in job creating enterprises in Australia. Even those without substantial savings may add to aggregate demand if they have access to capital markets for housing investment, for example. Such effects would also tend to obscure supply side effects on wages or unemployment.

Integration

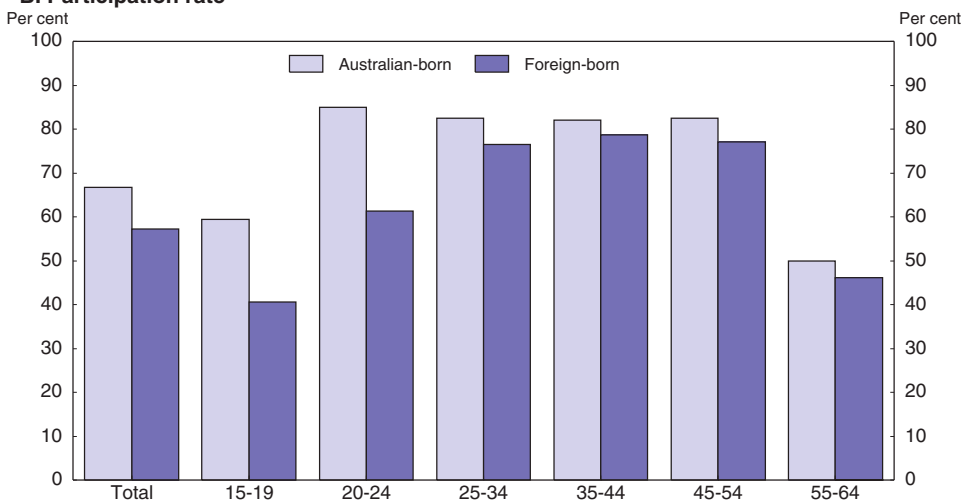
Although average levels of unemployment among immigrants are higher than for the Australian-born, and participation rates are lower, (Figure 46) this is heavily influenced by high unemployment among the low-skilled, especially humanitarian migrants and especially in the period immediately following immigration, and obscures the evolution through time. Most studies show that economic integration of immigrants occurs relatively quickly in Australia, in the sense that on many criteria – notably unemployment rates – immigrants overall become statistically very similar to the Australian-born after 10 years and much earlier for migrants in skilled categories. Data from the first Longitudinal Survey of Immigrants to Australia show, for example, that business and skill migrants have unemployment rates much lower than the Australian-born within 4 years after arrival. Differences between different regions of origin do seem to persist (Figure 47); but

Figure 46. **Unemployment and participation by age, Australian-born and foreign-born**
August 2002

A. Unemployment rate

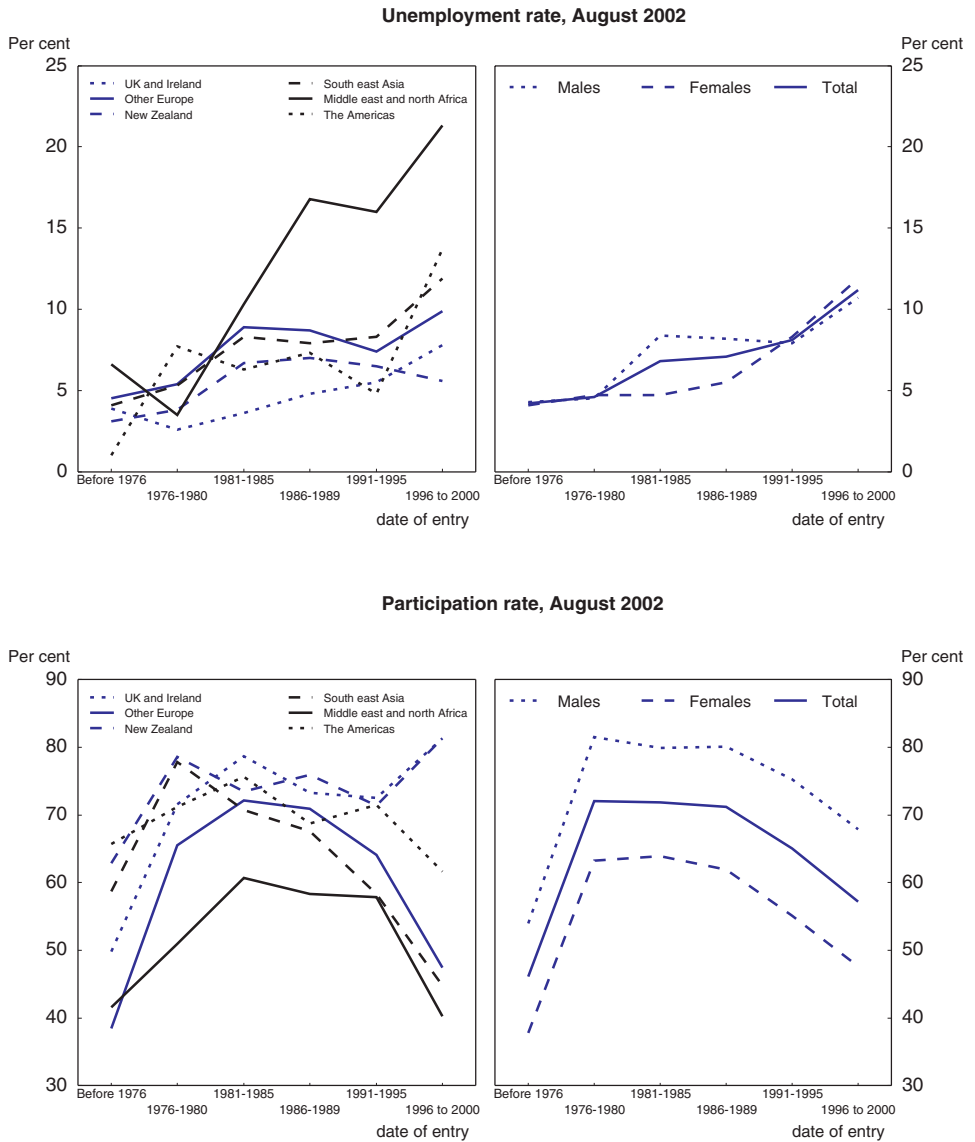


B. Participation rate



Source: Australian Bureau of Statistics.

Figure 47. **Unemployment and participation by date of entry, country of origin and sex**
1977 to 2001



Source: Australian Bureau of Statistics.

the children of immigrants also perform as well as those of the Australian-born. This successful integration is no doubt partly a result of the fact that, despite the changes in the mix of countries of origin, the immigrant population is still quite similar to the existing population in terms of education and language ability.

The groups who do less well economically appear to be those who are most different culturally and linguistically. While the children of immigrants on average do as well as those born to the Australian-born, the children of low-skilled non-English speaking immigrants do appear to remain disadvantaged beyond the difficult initial period of installation for newly-arrived families (Taylor and McDonald, 1994). Wooden (1993) notes that "hidden unemployment", by which he means withdrawal from the labour market by discouraged unemployed, is greater amongst non-English-speaking immigrants, emphasising that convergence in official unemployment rates is not sufficient to demonstrate labour-market integration. A more nuanced result on integration as measured by language ability is found in Chiswick *et al.* (2002b) where English-language ability is measured in terms of speaking, reading and writing skills. In the LSIA longitudinal study, initial differences between immigrants with different kinds of visa at the level of speaking ability disappear after 3½ years, but they persist for reading and writing skills. In a statistical model to explain these differences, Chiswick *et al.* find that the impact of certain variables, notably age and gender, increases over time.

There are significant differences in unemployment rates among immigrants with different types of visa. Miller (1999), using Australian Bureau of Statistics data on immigrants, found that the 1987 unemployment rate of unsponsored immigrants (who would generally have been subject to a points test) was significantly lower than that of all other visa categories.²⁴³ The same study found that when individual labour market characteristics (such as age, qualifications and English language ability) were taken into account in addition, the effect and significance of the visa category itself was much diminished or disappeared. The implication is that the points selection system does improve the economic integration of migrants, as measured by unemployment rates, and that it succeeds precisely because it focuses on characteristics closely related to employability. Distinct patterns of employment among immigrants with different classes of visa can also be seen (Figure 48).

The impact of English language ability is also reflected in patterns of welfare recipients among immigrants. Birrell and Jupp (2000) use census data to show that in 1996 the percentage of foreign-born in receipt of some welfare benefit was a little lower, for all age groups, than among the Australian-born. But for English-speaking immigrants these welfare recipient rates were much lower than for the Australian-born, while for non-English-speaking groups²⁴⁴ they were much higher. This study also showed that use of welfare tended to decline as a function of the length of time immigrants had been in Australia for nearly all groups, including the

Figure 48. Immigrant occupational status by visa class, 1996-97



1. Managers, administrators and professionals.

2. Para-professionals, tradespersons and clerks.

3. Salespersons, personal service workers, plant and machine operators and drivers, and labourers and related workers.

4. *i.e.* Those assessed under the points scheme.

Source: Longitudinal Survey of Immigrants to Australia, permanent immigrants from 1993-94 surveyed 42 months after arrival.

non-English-speaking (exceptions were females from English-speaking countries). Much of this decline appears to occur within five to ten years of arrival and is particularly marked for some non-English-speaking male age groups – for all language ability groups, welfare recipient rates were lower among foreign-born males aged 20-44 who had been in Australia for at least 10 years than for Australian-born in the same age group.²⁴⁵ For females the same is true for age groups up to 39 years. Above this age the situation is reversed, perhaps due in part to a greater propensity to be eligible for disability benefits related to the greater tendency for the foreign-born who arrived some decades ago to have been in manual occupations.

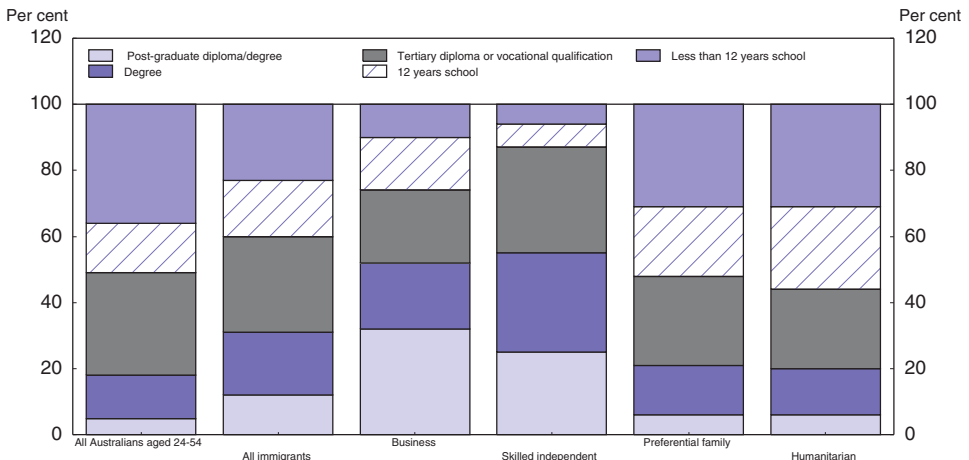
Impact on output and incomes

In the aftermath of the second world war, one of the slogans associated with immigration policy was “populate or perish”. This was motivated essentially by military considerations, in view of the perceived vulnerability of an enormous but very sparsely populated country with several very densely populated countries to the north. In addition, and more relevant in the current context, the idea that the population needs to grow to maintain *economic* viability had some influence. The hypothesis that somehow Australia would become economically non-viable in the absence of immigration is somewhat stark and untestable empirically; more prosaically, migration’s impact on output and incomes is of interest.

No empirical work satisfactorily assesses the overall impact of immigration on output or incomes in Australia. Analysis of this therefore depends on inferences from the characteristics of migrants and from empirical studies of certain issues. The current migrant intake is higher skilled than the Australian workforce on average (Figure 49), so it would be expected therefore that immigration is currently serving to raise overall productivity per hour worked. This effect, probably small, is reinforced by the higher proportion of people of working age in the immigrant population is high (Figure 50), which would more than offset the tendency to somewhat lower participation rates, so that the net effect of immigration increases per capita output in Australia.

Research sponsored by the government has looked at the impact of various incremental *changes* in immigration policies since 1995-96. Most of these changes – increasing the proportion of migrants selected through points testing, increasing the emphasis on English language skills, reducing the average age of migrants (both within the points-tested and family visa categories) – will have increased both the average skill level of migrants and their likely participation rate once in Australia. Econtech (1998), looked at changes in the programme up to 1997-98, and estimated that by 2008 the changes other than the reduction in programme size would increase average labour productivity by about 0.18 per

Figure 49. **Educational qualifications: immigrants and Australians**

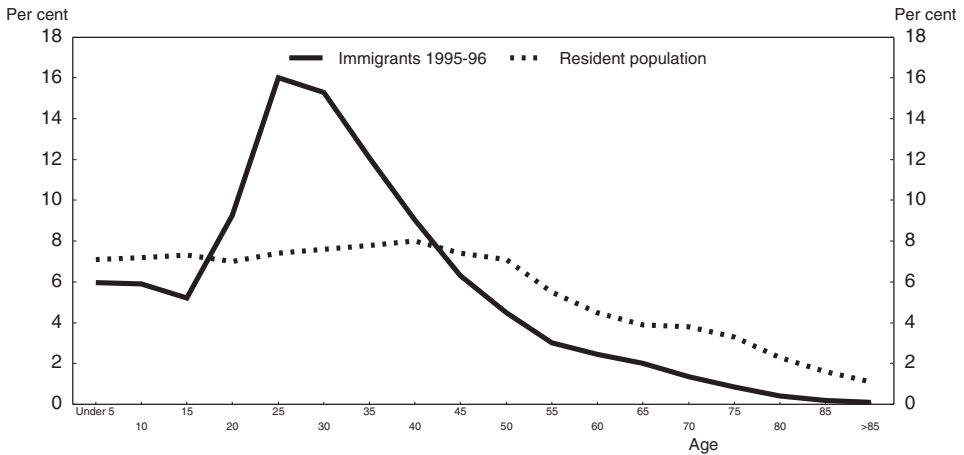


1. Immigrant data from LSIA 1, *i.e.* immigrants arriving in 1993-94.

2. The category "All Australians" includes the foreign-born.

Source: Year Book Australia 2002 and Longitudinal Survey of Immigrants to Australia (LSIA).

Figure 50. **Age distribution: permanent migrants and resident population**
1996



Note: In 1996 the Australian population was 17.9 million and there were 99 000 permanent immigrants.
Source: Econtech (1998) and Australian Bureau of Statistics.

cent;²⁴⁶ the effect of the reduction in programme size would reduce this to an increase of about 0.12 per cent. Much of this increase is due to higher skill levels²⁴⁷ but some is due to higher participation rates that follow from the relative reduction in the intake of both older people and family reunion. These are very small numbers, but it may be noted that the actual change in population associated with these changes is about 1¼ per cent after 10 years, itself a small number compared with the current 25 per cent immigrant share of the current population.

A later study, Econtech (2001), focuses on per capita consumption rather than per capita output, finding that cumulated programme changes since 1995-96 increased per capita *consumption* by considerably more than per capita *output*, largely due to the lower investment needs from a lower population and workforce (over this period the planned permanent inflow has still fallen), but to some extent also because the change in composition of immigrants – more highly skilled, more business visas – meant that they brought more wealth with them, which could be used to finance some of the investment.²⁴⁸

Unfortunately, these calculations do not distinguish the effect on existing residents' output and incomes from the overall effect, which includes the output and income directly attributed to the immigrants. The immigrants can reasonably

presumed to be significantly better off, on average, than if they had not migrated; but these simulations do not show directly that existing residents are also better off.²⁴⁹ One study has looked directly at this issue for Temporary Business Residents. This study found that most of the improvement in living standards accrued to the migrants themselves initially but that the existing population also benefited and increasingly so over time (Access Economics (2002c). In addition, the Government has recently commissioned a study which will examine the impact of the 2002-03 planned Migration Program on both the existing population and new migrants compared with no Migration Program over the next 20 years. Peter and Verikios (1996) use a simple neo-classical model to look at the effect of migration on existing residents' incomes. They estimate that the migration intake of 1991-92 did in fact reduce existing residents incomes in the long run, by an amount whose present value was about 0.8 per cent of GDP. This resulted partly from the fact that increased immigration shifts income from labour to capital (in such a model) and that about 30 per cent of the Australian capital stock is owned by foreigners, and partly from a dilution of existing residents "equity" in public sector capital.²⁵⁰ However, this result is likely to be an overestimate, and quite possibly the wrong sign: a number of studies show that immigrants are net contributors to the budget (see below), and immigrants bring with them a certain amount of capital, both contrary to the assumptions in Peter and Verikios (1996).

Economies of scale is sometimes raised by business and others as an argument for increased immigration. There is doubt about the importance, and maybe the existence, of economies of scale at the economy wide level, even if they may exist at the level of individual plants.²⁵¹ And if they do exist, an important question would be the degree of increasing returns. Business lobbies tend to argue for higher population growth in order to achieve higher growth of gross incomes and therefore market size, as well as to provide adequate labour supply. The growth of Sydney, Australia's largest city and its main financial centre, may be an example of a clustering effect, but it is not easy to show that there are externalities such that the benefits of this growth are felt outside the migrant groups themselves and the enterprises they work for, or that productivity growth itself is enhanced.

Empirically, little work on this exists for Australia. A recent cross-country study has used trade flows and factor proportions theory to calculate implicit scale elasticities for a number of manufacturing industries (Antweiler and Treffler (2002). A third of manufacturing industry showed no degree of increasing returns, while in others the scale elasticity ranged from 1 to 1.4 (doubling the scale increases output by 2.8 times). If the average for the whole economy were, say, 1.2 then doubling settlement immigration to an annual inflow of around 1.2 per cent would increase potential per capita GDP growth by 0.12 per cent compared with the current immigration programme. Earlier work for Australia (Perkins *et al.*, 1990) estimated the elasticity at 1.28 for the whole economy. Despite these estimates, macroeconomic models of Australia do not generally incorporate economies of scale.²⁵²

Economies of scale may be thought of as positive externalities, but some externalities may be negative. Sydney, for example, is one of the few areas in Australia where congestion appears to be a significant policy concern, so some of the externalities to immigration in this area may be negative.²⁵³ In popular discussion, water supplies are also seen as a constraint on population. This may be the case in some ultimate sense but in any foreseeable future it is more a matter of appropriate water pricing, and perhaps urban planning policy, so as to ensure that where water is in short supply for household use its supply to agriculture is not subsidised and that urban development is not encouraged in areas where water supplies may be a constraint.²⁵⁴ Both negative and positive economic externalities to existing residents from immigration are thus difficult to identify and may be small, so any attempt to estimate a trade-off between them is somewhat heroic; Nevile (1990) nevertheless estimated an “optimal”²⁵⁵ annual population growth rate as lying between 1.1 and 1.6 per cent. Current and expected population growth (if immigration remains around current levels) is at the low end of this range.

Income distribution: winners and losers from immigration?

In practice it may be that per capita incomes of existing residents of Australia do increase on average as a result of current immigration flows, but it would be surprising if the gains were large overall or uniformly distributed; it would be also surprising if there were not at least some people whose incomes would grow faster if immigration were lower (*i.e.* those with whom immigrants compete most directly in the labour market). Even though there may be no significant aggregate impact on wages in Australia, this does not exclude adverse effects for some sectors. Indeed, the labour market testing that is an important part of immigration policy only makes sense if some such effects exist.²⁵⁶

There is no recent work identifying either clear favourable or clear adverse effects on specific groups. Garnaut (2002) identifies some likely “winners” such as urban landowners. He notes that, although highly educated Australians may lose out from competition due to the increased emphasis on skilled immigration, such groups also own a disproportionate amount of Australian wealth and therefore benefit from rising asset prices. Australians with low levels of education and skills may lose out, especially in times of high unemployment and in areas where there are regional concentrations of refugees; the changes in property prices and rents that benefit the better-off may also act against those, mainly low income, people who do not own property. Garnaut concludes, nevertheless, that economies of scale may offset many of the losses so that it may be the case that few Australians see their living standards reduced by immigration even if “there is a tendency for established patterns of immigration to widen the dispersion of income”.

Geography

There is a tendency for national groups to concentrate in certain suburbs²⁵⁷ but there are no obvious economic consequences other than those associated with integration discussed earlier. The fact that this tendency is observed in practically all migration movements suggests that it is beneficial for migrants themselves. This may extend to more than just psychological and social benefits; it may help to improve job market integration, at least in the early period after immigration, rather than be a barrier.²⁵⁸ At the state level, it seems that states with relatively high population growth tend to receive more immigrants than others, whereas domestic migration (*i.e.* moves between states by the Australian-born) tends to be out of all states except Queensland and Western Australia, notably to Queensland (and more recently Victoria). Some of this latter movement could conceivably be a response to overcrowding that immigration might exacerbate, but although there is some debate on whether particular areas, notably Sydney, are sufficiently overcrowded to justify restricting immigration, there is no strong evidence.²⁵⁹

Entrepreneurship

It has been observed in a number of countries that immigrants often provide a disproportionate number of entrepreneurs.²⁶⁰ In some countries this is often in the retail and catering or construction sectors; in Australia the increase in the variety of types of food available in restaurants over the last two decades is clearly related to the immigration from Asia in this period.²⁶¹ Relatively high entrepreneurial activity may be the result of a choice by migrants or a reflection of the difficulties they may have in finding employment compared with becoming self-employed. For example, there is some evidence for Australia that self-employment can be a response to poor prospects in the labour market for the unskilled immigrants (Le, 1999).

The immigration programme itself is likely to generate relatively high levels of entrepreneurship among migrants since one of the specific ways to obtain a visa is through the business skills programme, outside the general skills test (although a system of points is also applied) or family reunification routes. The current programme was first introduced in 1992 and considerably expanded after 1993. One of the rapidly growing classes of visa is the temporary business visa which works in a similar way but without a points test; such visas are for up to four years.²⁶² A survey of Business Skills migrants three years after arrival (in the year July 1996 to June 1997) shows that as many as a quarter may no longer be engaged in a business activity by then; some attrition is to be expected amongst entrepreneurs setting up new businesses, even in this period of strong economic growth, so this probably represents quite a successful outcome overall.²⁶³ The main countries of origin for business migrants are somewhat different from that for

the “average” migrant, with Indonesia, South Africa, Taiwan, China and Malaysia taking the first five places in 2001-2002.

Fiscal impacts

Migrants affect public finance on both the expenditure and revenue sides and these effects will depend on the characteristics, behaviour, rights and obligations of the migrants. If the typical migrant were similar to the typical Australian-born person then there would not be much to say, per capita budget quantities would be essentially unaffected by migration.²⁶⁴ In Australia migrants do differ from the Australian-born, most notably (as far as their fiscal effect is concerned) in terms of their age on arrival and their skill. Research sponsored by DIMIA has calculated the fiscal impact of immigrants in some detail using the longitudinal survey data (Access Economics, 2002a; 2002b). Different classes of permanent entry visa are distinguished and the first longitudinal survey allows observations to be taken at 6, 18 and 42 months after arrival (Table 28).

As can be seen, business and skilled independent category visa holders (on average within each class) make a strongly positive contribution to the budget immediately with family migrants taking a few years to make a positive contribution. This is not the case for those with humanitarian visas, though it can be noted that despite the considerable short run impact the per capita cost of such entrants is substantially outweighed in the long run by the “surplus” from most other categories. It can be expected that the temporary business visa class would be the most lucrative for public budgets since they have no access to these public transfers for the duration of their temporary visa and in general earn higher incomes on average (and pay taxes). Even if the temporary business visa holder applies for and receives permanent status which he or she can do at any time during the temporary visa period, he or she will be subject to the two year waiting period from the grant of permanent residence. An earlier study (Centre for International Economics, 1992) showed a negative budget impact from immigrants in the short run, changing to a surplus in the longer term. The difference between the results for the short term of the earlier study and that shown in Table 28 may partly be explained by the considerable fall in unemployment between the two studies, especially among immigrants, the introduction of the 2-year waiting period for social welfare benefits, and perhaps the impact of the continuing switch in immigration policy towards higher skills and better English language ability.

The fiscal impact varies over time, as Table 28 clearly shows,²⁶⁵ and calculation of generational accounts for immigrants might give a more complete picture and allow comparison with generational accounts for the Australian-born.²⁶⁶ In particular it would take better account of the impact of immigration on pensions and old-age health care expenditure. Future immigration, especially if the bias against older people is maintained in both the family and skill streams, is likely to reduce

Table 28. **Budgetary impacts by migration category**
A\$ million per 1 000 migrants

Visa type	Year 1	Year 4	Year 10	Memorandum item: whole of government (= Commonwealth plus States) effect, Year 10
Family				
Revenue	2.9	4.6	5.6	6.6
Expense	4.8	5.7	5.6	5.5
Net operating surplus	-1.9	-1.1	0.0	1.1
Skilled Australian sponsored				
Revenue	3.7	5.3	6.6	7.3
Expense	4.3	4.5	4.8	3.7
Net operating surplus	-0.6	0.7	1.8	3.5
Business skills				
Revenue	14.9	13.7	16.3	15.6
Expense	4.4	1.8	-0.3	-1.1
Net operating surplus	10.5	11.9	16.6	16.7
Independent				
Revenue	8.0	14.7	18.7	16.3
Expense	4.1	2.6	-0.7	0.1
Net operating surplus	4.0	12.1	19.4	16.2
Humanitarian				
Revenue	1.5	2.7	3.4	4.3
Expense	11.9	8.3	9.3	8.5
Net operating surplus	-10.4	-5.5	-5.9	-4.2
Total				
Revenue	5.6	8.7	10.9	10.1
Expense	5.3	4.4	3.3	3.4
Net operating surplus	0.3	4.4	7.6	6.7

Note: These calculations are based on the characteristics of immigrants arriving in 1993-95, but facing the tax and social security system as in 2001; this includes the two year waiting period for social security eligibility. Negative expenses arise from reduced interest payments due to accrued surpluses.

Source: *Access Economics* (2002a), Table 5 and (2002b), Table 6.

the rate at which the population ages, although this only to a relatively limited extent.²⁶⁷ (It is interesting to note that this has not been true over the past 50 years. Population simulations show that if there had been no immigration at all since 1950, the age structure of the population in 2000 would have been almost the same as the actual outcome for that year (Kippen and McDonald, 2000).

Generational accounts have not been constructed for immigrants to Australia. Ablett (1999) calculated generational accounts for immigrants on the assumption that they differ from Australian-born only in their age, finding that, under that assumption, present and likely future immigration was beneficial for

the budget. An alternative comparison would be to construct the information in Table 28 calculated for the Australian-born as a comparator. Without such a comparison, the main implication of this information for policymaking purposes is probably only that no non-humanitarian category of immigrant is very expensive to the budget in the medium term, though it is probable that the long-run impact of old-age pension payments is underestimated in this analysis.

Trade, FDI and balance of payments

Immigration may affect the balance of payments in a number of ways. Migrants may initially bring money with them. Subsequently they may send money back to their country of origin or bring more in. They may bring more in either as personal transfers or perhaps as much larger flows related to entrepreneurial activity – investment or banking flows, for example. The links between their countries of origin and Australia that migrants create are likely to generate future trade (including services) and investment flows in both directions.

Estimates of the direct impact of migrants on the balance of payments are surprisingly few. One estimate for the mid-1990s based on the LSIA suggests that immigrants and temporary residents taken together bring in around A\$ 1.5 billion annually, including both capital and current account flows.²⁶⁸ Balance of Payments figures show larger amounts. At the end of the 1980s capital account transfers due to migrants showed a net inflow of over A\$ 2 billion (inflows of A\$ 2.6 billion and outflows of A\$ 0.4 billion). By the end of the 1990s the estimates were somewhat lower, even in nominal terms, at around A\$ 1.6 billion net, compared with total exports of goods and services in 2001 of some A\$ 150 billion. This decline is somewhat surprising given the increasing emphasis on types of immigrant that are likely to have high net worth, although migrant inflows themselves are also lower than in the late 1980s.²⁶⁹

This might not be thought of as significant for the balance of payments, providing the equivalent of only about 1 per cent of total exports of goods and services. On the other hand, this revenue, generated by an inflow of people of some 0.6 per cent of the population, would finance around 0.2 per cent of private consumption and investment even before those immigrants contribute to domestic production.

In the long run, trade and investment flows related to the international connections that migration generates may be more important than these flows of remittances and of capital directly related to the period of migration itself. But such more indirect effects are not easily measurable.²⁷⁰ A 1995 study in the food industry suggested that such effects were detectable but might be rather small.^{271, 272}

The relative expansion of the business skills stream is likely to increase the tendency of migration to promote trade – migrant entrepreneurs can be expected to be both more likely to consider foreign trade and better able to

undertake it, at least with their country of origin. Whether this is an additional gain for Australia, beyond that obtained from an equally effective entrepreneur without a “bias” in favour of trade with a particular country or countries is not so obvious however. The benefits from maintaining an open economy are well-known, but with Australia already an open economy it is not clear that trying to increase the propensity to trade through migration policy would increase these gains.

It is not only immigration but also emigration that generates international links, of course. There is little direct evidence that emigrants from Australia maintain contacts that increase Australian external trade, but it is likely. Anecdotal evidence suggests at least that temporary emigrants acquire valuable human capital or contacts when they travel abroad, with reports that returning Australians with overseas experience attract higher salaries in sectors such as banking and finance than less-travelled Australian-born.²⁷³ More formal evidence from Ireland also documents this phenomenon (in which self-selection may also play a role, of course), showing that a set of Irish graduates who left to work abroad in the early 1990s and who later returned to work in Ireland, earned higher salaries in Ireland than their contemporaries who had not spent any time abroad.²⁷⁴

Conclusions

This chapter is not an assessment of immigration policy itself, but looks rather at migration’s economic effects, though it does consider policy when its aims are defined in economic terms. Migration policy, which used to be highly selective in terms of countries of origin, has now become highly selective in other terms, focusing on family connections, skills and those in humanitarian need. Over the last decade, the balance has shifted strongly towards selection on the basis of skills, including through the tightening of points testing as it applies to other than close family. The importance of the points tests (which largely takes age, English proficiency and educational qualifications as a proxy for level of skill) has increased.

With about one in four of new entrants to the labour market coming from abroad, immigration policy is likely to have important implications for the labour market. Although such high levels of immigration would (rightly or wrongly) be seen as a problem for labour market adjustment in many other OECD countries, the fact that Australian immigration has always been of this order of magnitude means that the inflow is not a “shock”. Labour market institutions and company behaviour, such as investment decisions, are well adapted to migration flows, which may well be part of the explanation for why the econometric literature finds it difficult to detect any influence of immigration on the labour market.

Nevertheless, unemployment rates are somewhat higher for recent immigrants than for Australian-born, and this higher unemployment is concentrated in humanitarian entrants and, to a lesser extent, close family migrants.

These categories include a higher proportion of people with low English proficiency and/or skills, groups, like unskilled Australian-born, which are the most affected by the lack of flexibility of the award wage system. Over the last six years, the government has strengthened the criteria for entry as a skilled migrant and has increased the proportion of migrants that arrive in the Skill Stream. The considerable fall in the differential between immigrant and Australian-born unemployment rates overall in the 1990s can be taken as evidence of the success of this policy although it is also due to the favourable economic background. Unless measures are taken that might reduce the risk of unemployment among the low-skilled – which may mean implicitly accepting some weakening of the protection given to the wages of the *employed* low-skilled by the award system – it is likely that in any future slowdown, with rising rates of overall unemployment, the differential may widen again. To the extent that the differential is due to discrimination and language problems, efforts to maintain or improve policies in these areas need to be continued.

The Australian immigration system is one of the most sophisticated in terms of the degree of detailed information used in selection. It is based to a considerable degree on academic research, and has focused increasingly on selecting immigrants that will increase the incomes of existing residents and avoid budgetary costs. The estimates of the benefits from recent policy changes do not in fact seem to be very large, especially set against the degree of reliability of the kinds of models used to generate them, but they do seem to move outcomes in the directions wished for by policymakers (and it can be hard to judge what “large” means in this context). Only humanitarian immigrants in fact have much negative budgetary impact, even before rights to welfare benefits for recent non-humanitarian immigrants were significantly reduced. The rapid decline in average welfare recipient rates in the period after immigrants arrive, to levels below those for Australian-born, suggests there is no overall problem of welfare-dependency incentives among immigrants. The 2-year waiting period before most immigrants are eligible for full welfare payments has been estimated to provide A\$ 700 million over 4 years (about 0.1 per cent of Commonwealth government revenue) in direct fiscal benefits and to have some impact on labour market behaviour. Its impact on either the numbers or the nature of immigrants is likely to be small given the nature of the measure (some welfare safety net remains in place) and the degree of control already exerted on inflows.²⁷⁵

Although this increased emphasis on economic aspects of immigration may have come at the cost of reduced inflows of family members, and some reduction in welfare rights, the process for deciding on each year's programme involves considerable consultation with many groups in society, so it is presumably reasonably well in line with overall public opinion. So long as Australia remains an attractive place for immigration while at the same time it is felt that there is a ceiling on the rate at which immigrants can be absorbed, some form of

selection policy is needed; the current emphasis on skilled migration has been successful in improving labour market and fiscal outcomes.

At least at the higher skill end there have been changes in the nature of migration flows in Australia in recent years which may – it is too early to say – put limits on the extent to which Australia can select her immigrants. The rapid rise in the number of skilled immigrants on long term temporary visas may be due to the demands of the improving Australian labour market coupled with restrictions on the number of permanent visas available; however, along with the rising number of skilled Australians emigrating it may be a sign of an increasingly internationally mobile skilled labour force for which Australia may have to compete with other countries.

Notes

1. Similarly high household debt-income ratios prevail in the United States, Canada, the United Kingdom and New Zealand.
2. The transition to GST on 1 July 2000 created a strong financial incentive to bring forward expenditures not taxed at all under the old wholesale sales tax from the second half into the first half of 2000. Such shift was most pronounced for residential investment, which contributed heavily to its strong growth in the first half of 2000. Its subsequent steep fall weakened economic activity substantially in the second half of the year.
3. Under the First Home Owner Scheme (FHOS), A\$ 7 000 have been made available to first-time purchasers of new or established homes as from 1 July 2000. An additional grant of A\$ 7 000 was given to first-time home buyers purchasing new homes as from 9 March 2001. This additional grant was reduced to A\$ 3 000 from 1 January 2002 to 30 June 2002, when it expired. Hence, at present, the grant under the FHOS amounts to A\$ 7 000.
4. Housing affordability from the perspective of the average owner-occupier is measured by the ratio of average household disposable income to the (“qualifying”) income required to meet payments on a typical dwelling (expressed as an index). In calculating qualifying income, a deposit of 20 per cent with repayments equal to 30 per cent of income is assumed using a conventional 25 year loan. An increase in the index represents an improvement in affordability.
5. There are three separate series for house prices in Australia which survey different samples of dwelling sales. The series used here are those produced by the Commonwealth Bank/Housing Industry Association.
6. Fiscal years begin 1 July.
7. The ANZ Bank (2002) proposes estimates of the “fair value” of housing, based on the housing affordability approach for owner-occupiers and on an earnings discount model for an average residential investor. Both methods suggest that house prices are far from entering a situation of irrational exuberance as they are only now approaching their fair value and have some further scope for appreciation.
8. As indicated by the broad-based NAB (National Australia Bank) quarterly business confidence index.
9. The 13¾ per cent decline in ANZ job vacancies in December was heavily affected by the timing of Christmas.
10. The peak unemployment rate was 10.9 per cent in December 1992 and the previous low was 5.4 per cent in June 1981.
11. This is discussed in Chapter III.

12. Persons unemployed for 52 weeks or more.
13. However, in mid-1992, when the economy had completed the first year of the current upswing, the youth unemployment rate was more than 33 per cent.
14. This supports estimates that CPI inflation remained within the 2 to 3 per cent range from mid-2000 to mid-2001 if adjusted for the price-level effect of GST.
15. The trimmed mean inflation is calculated as the (weighted) mean of the central 70 per cent of the quarterly price change distribution of all CPI components. The weighted median inflation is the inflation rate for that item which is in the middle of the total distribution of price changes. For more details see Box D: Underlying Inflation in Reserve Bank of Australia (2002), Bulletin, "Statement on Monetary Policy", May.
16. The wage cost index measures the change in the hourly rate of pay for a fixed basket of "constant quality" jobs. It is thus a more reliable indicator of wage pressures than the widely used average weekly earnings which are also shown in Table 5. The latter are measures of the wage bill, which is likely to have been boosted by a shift in the composition of wage earners covered by the index from lower skilled to higher skilled jobs, which are typically better paid.
17. Most notably the NAB Quarterly Business Survey and the ACCI-Westpac Survey of Industrial Trends.
18. As shown in Figure 10, lower Panel, this inflation expectation measure tends on average to exceed actual inflation by a large margin. At a twelve-monthly rate of 4.1 per cent in the September quarter of 2002, it broadly equalled its ten-year average of 4.2 per cent.
19. However, trade union officials surveyed by the Australian Centre for Industrial Relations Research and Training expect inflation to be at 3½ per cent in the year to June 2003.
20. Econometric research by Gruen, D., J. Romalis and N. Chandra (1997) suggests a mean lag of about 1½ years between changes in the cash rate and its impact on economic growth.
21. Korea, New Zealand, the United States and China in particular, with Japan being the notable exception.
22. They found that an increase in the structural budget deficit by one per cent of GDP would raise the Australia-US ten-year real bond rate differential by about 30 basis points. If true, this would substantially reduce the efficacy of activist fiscal stabilisation policy in Australia. However, the authors also note that 'size' of the impact of fiscal policy on the interest margin is likely to be smaller in the current era of low public debt.
23. Headline CPI inflation jumped to 6 per cent around mid-2000, reflecting the transition from the old wholesale tax to the goods and services value-added tax (GST). Underlying inflation remained low, however.
24. The calculation is based on average nominal cash rates for the periods 1992 to 2002 and 1997 to 2002, when output growth averaged around 4 per cent. Neutral real cash rates are then calculated using as deflators alternative measures of inflation expectations (*e.g.* indexed bond rate differentials, measures of "underlying" inflation) over these periods. Adding to the such-derived alternative real cash rates the mid-point of the RBA's inflation target band (hence 2½ per cent) leads to about 5½ per cent for the nominal neutral cash rate. This has been laid out in more detail in the Reserve Bank of Australia Bulletin (2002), "Statement on Monetary Policy", August.

25. At one point in October 2002, the Australia-US ten-year bond spread reached almost 200 basis points.
26. This ended a period of marked divergences in the growth of credit and monetary aggregates, which had resulted from the substitution by banks of certificates of deposit by bank bills and offshore borrowing, with the latter two liabilities not being counted in monetary aggregates.
27. Broad money comprises the monetary aggregate M3 (currency plus bank deposits of the private non-bank sector) plus borrowings from the private sector by non-bank financial institutions, less the latter's holdings of currency and bank deposits.
28. The normative short-term interest rate r' ("Taylor rule") is defined as $r' = r^* + p + (p - p^*)/2 + \text{GAP}/2$. This makes r' the sum of the long-term (Hodrick-Prescott) trend value r^* of the real short-term interest rate, the actual (tax-adjusted) inflation rate p , one-half of the difference between actual inflation p and the inflation objective p^* and one-half of the output gap, defined as the difference between actual and potential output as a percentage of the latter. Accordingly, the usefulness of the Taylor rule depends crucially on the choice of the weights used, the assumed value of r^* , and the accuracy of the measurement of the output gap.
29. The actual and structural net lending position of the general government improved by, respectively, 7.1 and 5.4 percentage points of GDP over the period 1993-1999, compared with outcomes of 5.1 and 3.3 percentage points for the OECD area as a whole over the period 1994-2000.
30. The Australian budget year runs from 1 July to 30 June.
31. For a detailed discussion of the reforms see OECD 2000a and 2001a.
32. These principles include: achieving adequate national saving; moderating national fluctuations; maintaining Commonwealth general government net debt at prudent levels; pursuing spending and taxing policies that are consistent with a reasonable degree of stability and predictability in the tax burden; maintaining the integrity of the tax system; and ensuring that policy decisions have regard to their financial effects on future generations (OECD 2000a and 2001a).
33. As pointed out by the paper, such a conclusion needs to be qualified by the observation that the findings of the study are based on aggregate data and therefore may not capture the demand effects of specific policies that may have in practice a larger demand impact (Comley *et al.*, 2002).
34. The benefits arising from the Commonwealth's medium-term fiscal strategy are discussed in detail in Budget Paper No. 1 of the 2000-01 Budget (May 2000).
35. Net worth is defined as financial and non-financial assets, less liabilities.
36. Based on estimates included in the 2002-03 Budget (May 2002).
37. Important initiatives include a further reduction in company tax as part of the implementation of the 2000 tax reform; a reduction in excise on petroleum fuels and draught beer; as well as initiatives in high priority areas, including support for older Australians, welfare reform, health, environment and measures strengthening telecommunication services – particularly in rural and regional Australia. For more details, see 2001-02 Budget (May 2001).
38. The May 2001-02 Budget projected a fiscal deficit in accrual terms of 0.1 per cent of GDP for the fiscal year, compared with a surplus of 0.5 per cent of GDP expected at the *Mid-Year Economic and Fiscal Outlook* (MYEFO) in November 2000. The underlying cash balance was expected to record a small surplus of 0.2 per cent compared with a mid-

- year estimate of 0.7 per cent of GDP. The MYEFO estimates did not incorporate the discretionary tax cuts and additional spending, together amounting to A\$ 3.7 billion, that featured in the May, 2001 Budget.
39. Economic growth forecasts for 2001-02 were revised upward from 3¼ per cent in the May 2001-02 Budget and 3 per cent in the MYEFO 2001-02 of October 2001, to 3¾ per cent by the time of May 2002-03 Budget.
 40. On an accruals basis, the outturn was a deficit of 0.5 per cent of GDP.
 41. An additional A\$ 7 000 First Home Owners Scheme grant, funded by the Commonwealth, was made available in March 2001 to eligible recipients who bought or built a new dwelling, bringing the total to A\$ 14 000. The additional grant payment was to cease at end-2001 but was extended to end-June 2002 at a reduced rate of \$A 3 000 per eligible recipient (Budget 2002-03 Paper No. 1, May 2002).
 42. Broad balance is projected on an accruals basis.
 43. The 2002-03 Budget is the seventh Commonwealth budget presented under this fiscal strategy.
 44. Changes in economic assumptions and new policy initiatives, have resulted in an upward revision of Commonwealth revenue of around A\$ 3.4 billion in 2002-03 since the October 2001 MYEFO. This reflects higher projected income tax revenue from small unincorporated business, higher revenue from indirect taxes, additional funding to the Australian Taxation Office, and a deferral of several measures of the next phase of the business tax reform.
 45. New policy decisions are estimated to reduce the fiscal balance by around A\$ 0.7 billion in 2002-03, rising to around A\$ 0.9 billion in 2004-05.
 46. Initiatives to support the PBS are estimated to result in a decrease in the relevant expenses for the scheme of A\$ 384 million in 2002-03, rising to A\$ 510 million in 2005-06. The package of measures to develop and improve the work capacity of people with disabilities involves a rise in expenditure in 2002-03 and 2003-04, but is estimated to result in net savings of A\$ 337 million over the period 2002-03 to 2005-06 (Budget 2002-03 Paper No. 1, May 2002).
 47. The additional First Home Owners Scheme ended on 30 June 2002. The projected decline in housing expenses from 2003-04 is largely due to the halting in 2002-03 of the Goods and Services Tax (GST) transitional funding provided under the Commonwealth-State Housing Agreement.
 48. A strong rebound to 4 per cent is projected for 2003-04.
 49. On an accruals basis, a deficit of A\$ 0.5 billion is now projected, compared with a previously estimated surplus of A\$ 0.2 billion. The divergence between the cash and the fiscal balance measures mainly reflects timing differences between when revenues and expenses are recognised and recorded.
 50. Major initiatives include: increased spending since the Bali terrorist attacks to support the victims and their immediate families, and for enhanced security arrangements; an immunisation programme against the Meningococcal C virus; a medical indemnity insurance package; and assistance to the sugar industry to facilitate structural adjustment (Commonwealth of Australia 2002-03 *Mid-Year Economic and Fiscal Outlook*).
 51. According to the State and Territory estimates, the sector's receipts and payments are forecast to return to more moderate growth over the period 2002-03 to 2005-06, after strong growth in the previous two fiscal years. New South Wales and Victoria forecast lower property revenue in 2002-03, reflecting to a large extent, the end of the down-

- ward cycle in interest rates. Moreover, the New South Wales cites significant declines in payroll tax and the abolition of debits from 1 January 2002 as factors contributing to lower receipts.
52. The 2002-03 Budget embodied the assumption of a further sale of a part of the government's shareholding in Telstra in late 2003, one year before that is currently assumed in MYEFO, subject to the government being satisfied with improvements in the telecommunication services, particularly in rural and regional Australia. The government attempts to promote a greater range and quality of services in such areas including through its response to the Telecommunications Services Inquiry and appropriate regulatory safeguards. Moreover, in November 2002 the government received the report of the Regional Telecommunications Inquiry into the adequacy of services in regional areas. The Government is considering the report's recommendations.
 53. On the basis of the 2002-03 MYEFO estimates, the Commonwealth government net worth in the fiscal year is expected to decline to around A\$ 46 billion, compared to a budgeted A\$ 44 billion, mainly due to recent declines in the Telstra share prices which led to a downward revision to the market value of the Commonwealth's shareholding in the company.
 54. In line with the objective of managing the reduction in net debt, the government envisages continuing the issuance of a new benchmark Treasury Bond with a 2015 maturity, in 2002-03, which will assist in maintaining the length of the yield curve and ensure, in the longer term, a smooth progression of available stocks into the 10 year bond futures contract (2002-03 Budget Paper No. 1, May 2002).
 55. The government released in October 2002 a discussion paper of the *Review of the Commonwealth Government Securities Market*, inviting submissions from interested stakeholders by 6 December 2002. To further facilitate the consultation process, a reference committee has been formulated by the Treasurer, consisting of representatives from several key stakeholder associations. The purpose of the committee is to provide assistance on issues of detail emerging from the process.
 56. As it is pointed out by the Commonwealth discussion paper, the majority of State and Territory government has proceeded to the funding of a part or all of the superannuation liabilities, mainly through the allocation of an asset portfolio to the superannuation fund.
 57. Submissions on the Commonwealth discussion paper support, in general, the maintenance of a market for CGS, highlighting the potential efficiency costs from its elimination. As an exception, the submission by the finance house TD Securities supports the option of widening down the CGS market arguing that the maintenance of such a market is "inappropriate" given the government's commitment for balanced budget on average over the cycle and further sales of assets. Instead, the paper highlights the "ample opportunities" for expansion and development, for both market participants and the overall economy arising from deeper and more sophisticated financial markets under such option. For public submissions on the issue see at http://debtreview.treasury.gov.au/public_sub.asp.
 58. Norway's Government Petroleum Fund, for example, managed by the Norwegian Central Bank, is restricted to invest only in foreign financial markets so as to reduce the risk for distorting the domestic financial markets. See Mylonas *et al.* (2002) and Commonwealth of Australia (2002d), *Review of the Commonwealth Government Securities Market*.
 59. Mylonas *et al.* (2000); OECD (2002a, b).
 60. See OECD (1999b, 2001a) and Dang *et al.* (2001).

61. The IGR provides a framework to assess the long-term budgetary implications of current policy settings, as required by the Charter of Budget Honesty Act 1998 (2002-03 Budget Paper No. 5, May 2002).
62. The IGR projections assume current trends in government expenditure and a constant ratio of revenues to GDP. The GDP share of non-demographic spending is also assumed to remain constant over time. As a result, the projections are subject to a high degree of uncertainty. However, sensitivity analysis of the projections, with respect to changes in underlying assumptions and trends, indicates that the broad policy conclusions of the central scenario still hold (2002-03 Budget Paper No. 5, May 2002).
63. The IGR projections assume that real average costs per student and post-secondary education participation rates will increase.
64. See also Chapter III.
65. The compulsory contribution rate stands currently at 9 per cent. The effect of the SG scheme depends on the extent that compulsory contributions substitute for voluntary saving. The savings offset for compulsory superannuation impacting on low income earners is uncertain, however a study by Morling and Subbaraman (1995) of the 35 years before 1995 estimated the offset to the voluntary superannuation of higher income earners of this period at three-quarters.
66. Double dippers are estimated to be a small percentage of the retired population and there is only little evidence of a significant non-investment use of the superannuation lump-sums. To ensure that superannuation benefits are used to finance retirement income, the government has legislated a phased increase in the preservation age from 55 in 2015 to 60 by 2025. Moreover, the 2001-02 Budget removed the requirement for unemployed persons between 55 and the pensionable age to draw upon superannuation while unemployed for lengthy period (OECD 2001a).
67. A simplification of the arrangements for the taxation on superannuation benefits and their treatment in the Age Pension means test could encourage individuals to take such benefits as an income stream. Limiting the value of owner-occupied housing that is exempt from the Age Pension means test, would also be beneficial in this regards. The government is considering to change the rules on superannuation benefits in order to ensure that the effective rate of tax on an excessive component of eligible termination payment is not above 48.5 per cent. This results, under current arrangements, by the combination of tax on fund earnings (including contributions), the contributions surcharge and the taxation of benefits above the Reasonable Benefit Limit.
68. See Dowrick and McDonald (2002).
69. See Madge (2000).
70. These were discussed in detail in the 1995 and 1998, see OECD (1995) and OECD (1999b) *Economic Surveys of Australia*.
71. Other initiatives included: the introduction of measures to reduce or eliminate out-of-pocket expenses of patients – known as “no gaps” or “known gaps” options. The “gap” is paid by members and is the difference between the fees charged by doctors for in-hospital medical services and the combined health insurance benefit and Medicare Benefit Schedule fee which is covered by Medicare; the exploration of cost-effective payment models for day hospital and after care facilities; treatment of chronic and complex conditions; and rehabilitation.

72. The Lifetime Health Cover scheme, introduced in the 1999-2000 Budget, operates with a threshold age of 30 years. Members who join by the age of 30 and maintain their membership are rewarded with lower premiums while those who join after the age of 30 attract a penalty of 2 per cent of their premium for every year they delay taking out hospital cover.
73. The proportion of population under private insurance increased to 44.7 per cent by end-June 2001, compared with 42.8 per cent a year ago and only 30.1 per cent in December 1998. The decline in the corresponding proportion in 2002 reflects updated population estimates released by the Australian Bureau of Statistics during 2001-02, although the number covered by private health insurance remained unchanged from the previous years, at 8.7 million people.
74. The original Bill to enact this measure was rejected by the Senate and the government reintroduced it into Parliament in November 2002. The legislation was passed by the House of Representatives on 4 December 2002.
75. The main problems of the previous tax system in Australia, the government's 1998 tax package and the modifications to the original package to get the Senate's approval were discussed in detail in the 2001 OECD *Economic Survey of Australia*.
76. The efficiency effects of the Horizontal Fiscal Equalisation (HFE), the principle upon which the GST revenue is provided and distributed to the States, remain a controversial issue. The most recent contribution has been provided by the Report of Garnaut and FitzGerald (2002), commissioned by the New South Wales, Victorian and Western Australia governments. The report estimates an increase in national welfare of A\$ 169 million from a move to a system of equal per capita distribution, pointing that this amount could represent an underestimate of the potential effects. On the other hand, a national forum conducted for the study, has criticised the Garnaut-FitzGerald findings on the grounds that they rely on a number of critical simplifying assumptions. The government would be open to considering any alternative method of allocation of GST revenue agreed among the States.
77. An important case is that of "small firm exemption" the thresholds of which ranges significantly across States and Territories ("the States"). In recent years, the States have introduced adjustments to the base, thresholds and rates on which payroll tax is applied.
78. Estimates on administration and compliance costs of GST were presented in the regulation impact statement that accompanied the GST legislation. There has been an agreement between the Commonwealth and States governments on an ongoing increase in the administrative costs of the GST aiming to manage the larger than anticipated GST workloads and to increase field services and compliance capabilities. The increase amounts to A\$ 184.5 million in 2002-03 rising to A\$ 235.8 million by 2005-06.
79. The simpler GST reporting options introduced in 2001 have been used only by a relative small number of taxpayers, while around 90 per cent of business that submit quarterly returns have chosen to stay with the full calculation and reporting for the year 2001-02.
80. This is reflected in the November 2001 Dun and Bradstreet National Business Expectation Survey, according to which more than 90 per cent of executives stated that they were 'comfortable' with TNTS after 16 months and that there was a decline in the amount of time companies are spending on GST administration. The May 2002 survey results of the Yellow Pages and Business Index – Small and Medium Enterprises, confirmed such sentiment with only 6 per cent of respondents citing the GST as a concern.

81. In August 1998, the government established a Review of Business Taxation under the Chairmanship of Mr. Ralph to consult with the interested parties on the broad lines of business tax reform outlined in the government's tax package, *Tax Reform: Not A New Tax, A New Tax System* (Commonwealth Treasury 1998). The government announced on 21 September 1999 and 11 November 1999 its response the Ralph Review of Business Taxation (OECD 2001a).
82. The previous regime resulted in a number of problems for the taxation of wholly-owned groups of companies, including tax impediments to business organisation, high compliance costs, tax-avoidance through intra-group dealings, value shifting, double deductions and double taxation (Commonwealth of Australia 2000).
83. A protocol to amend the Australia/US Double Taxation Convention was signed on 27 September 2001 (negotiations with the United Kingdom and Germany are currently under way). Legislation to give effect to the protocol has subsequently been passed by the Australian Parliament but it has yet to receive the required approval from the US Senate. The protocol will remove withholding tax on certain dividends, enabling major Australian public companies to bring profits made by their US subsidiaries back to Australia without any further tax being payable. Other amendments include an updated list of taxes covered, and a new provision dealing with interposed trusts in relation to permanent establishments (Treasure's Press Release Number 074 of 2001).
84. See Review of International Taxation Arrangements: Consultation Paper (available at http://www.taxboard.gov.au/int_tax/index.htm).
85. The provisions of franking credits for foreign dividend withholding tax and the introduction of foreign income accounts have been deferred pending the outcome of the review of international tax arrangements.
86. The TVM calculates taxable income on the basis of cash flows and changing assets and liabilities, with adjustments to reflect tax policy effects. Hence, the method allows tax liabilities to be based on fluctuations of a company's balance sheet, compared with the traditional method of working out assessable income, and then subtracting allowable deductions.
87. The government had announced its in principle support to the recommendation of the Ralph Review of Business Taxation to introduce the TVM and associated high level rules, subject to an extensive consultation process with representatives of the business community. The Board of Taxation was requested in August 2000 to undertake this consultation process for the evaluation of TVM. The Board reported that *i*) there was no appreciable community support for the TVM concept; *ii*) there was a widespread perception that, while the TVM may offer benefits in some areas, it would generate greater complexity in others; and *iii*) adopting the TVM would result in substantial transitional costs for tax advisers and business generally.
88. A discretionary, or non-fixed, trust is one in which not all the entitlement to its income and capital are fixed. The government announced in its August 1998 statement *A New Tax System* its intention to tax trusts as companies. This proposal was then restricted to the discretionary trusts only, and the government released in October 2000 exposure draft legislation (Board of Taxation 2002).
89. On the basis of the Board's report, there were about 340 000 discretionary trusts used in the 1998-99 tax year, and about 1.9 million individuals (or 20 per cent of the total number of individual taxpayers) received a distribution from partnership or trust. By comparison, in the same tax year there were about 600 000 companies, 500 000 partnerships and

- 90 000 fixed trusts. The report notes that the use of trusts in the recent past grew at the same rate as the use of companies.
90. The Treasurer announced, on 12 December 2002, changes to law to correct deficiencies in the provisions dealing with loans from trusts, in line with the recommendations from the Board of Taxation's report *Taxation of Discretionary Trusts*.
 91. Under the current tax regime, income amounts of discretionary trusts that are not assessable to the trustee or beneficiaries (for example, due to a tax concession) may be distributed to beneficiaries tax-free.
 92. Since the early 1990s, the government has introduced a number of changes to the tax treatment of trusts, which are discussed in detail in the report of the Board of Taxation for *Discretionary Trusts*. Integrity provisions (the alienation of personal services income measures) were introduced, for example, in July 2000 to prevent individuals from avoiding tax by diverting income gain from their personal efforts or skills to an entity such as a company, partnership, or trust. Such measures impose restrictions on the ability of an individual to retain personal services income in an entity and on deductions which can be claimed.
 93. The top marginal rate of personal income is 47 per cent (or 48.5 per cent with medical levy) compared with a top corporate income tax rate at 30 per cent.
 94. An international comparison of real GDP growth is provided by Annex Table I of the OECD *Economic Outlook* No. 72.
 95. Prima facie, the East-Asian crisis should have hit Australia particularly hard, given its greater trade exposure to the crisis-affected region than most other OECD countries. The 2000 OECD *Economic Survey of Australia*, Chapter II, attributes the Australian economy's resilience to the Asian economic crisis and the subsequent global slowdown of economic activity to the judicious mix of sound macroeconomic and structural policies. This view is supported by simulations with the OECD INTERLINK model which suggest that a major contribution to the favourable performance over the 1998 to 1999 period owes to the particular combination of expansionary monetary policy and fiscal retrenchment adopted by the authorities at the time. Its resilience to the Asian crisis gave rise to Australia being labelled as a "miracle economy" by some observers, for example Krugman (1998) and Bean (2000).
 96. Focussing on potential as opposed to actual output eliminates the effects of the business cycle from the analysis.
 97. Of course, the results of growth decompositions have to be taken with a degree of caution as they can be quite sensitive to the model specification underlying the exercise. However, a purely mechanical decomposition of the actual growth of real per-capita GDP into the components working-age population, participation rate, employment rate and labour productivity also leads to the conclusion that improved labour productivity was the main source of higher economic growth in the 1990s. This is illustrated in OECD (2001), *The New Economy: Beyond the Hype*, Figure 3.
 98. Productivity cycles are defined as the intervals between productivity peaks, as identified by the Australian Bureau of Statistics (ABS). Average growth rates over peak-to-peak productivity cycles are used as indicators of underlying rates of productivity growth, hence adjusted for the effect of the business cycle. The latest productivity cycle dates from fiscal year FY 1993-94 to FY 1999-2000 and the preceding cycle from FY 1988-89 to FY 1993-94.
 99. Multifactor productivity is defined as the difference between the growth of output and those of the growth of inputs of capital and labour, suitably weighted. The capital/

labour ratio is interpreted as an indicator for the “capital deepening” of the production process. Assuming a Cobb-Douglas specification of an aggregate production function and constant returns to scale, labour productivity growth can be represented as the sum of the growth of multifactor productivity and the change in the capital/labour ratio.

100. This implies that the acceleration of average annual labour productivity growth from the 1988-89 to 1993-94 cycle to the 1993-94 to 1999-2000 period by an extra 1 percentage point – the difference between average growth rates over the two respective periods – was entirely due to the pick up in the growth of multifactor productivity, with the capital deepening component to the acceleration even being slightly negative (–0.1 percentage point).
101. This issue was already taken up in the 2001 *OECD Economic Survey of Australia*. Reference to a growth accounting exercise led to the attribution of a comparatively low share in the overall productivity gain to the heavy use of ICT in Australia in the 1990s. This left over a substantial residual in the analysis of the productivity pick up which could not be readily explained by the “new economy”.
102. In Australia (like in the United States and Finland), ICT investment accounted for over 50 per cent of the increase in non-residential investment in the late 1990s.
103. See OECD (2001d), Figure 6.
104. Nicoletti, Scarpetta and Boylaud (1999) found that countries with a high price level of ICT investment tend to have a lower degree of competition, as measured by indicators of economic regulation.
105. Countries such as the US and Finland which have large ICT-producing sectors experienced a significant increase in their multifactor productivity (MFP) growth at the macro level, in part because of very large increases in MFP levels in that sector, as well as because of increased use of ICT equipment in all sectors.
106. With trade-exposed parts of the farming sector and mining being notable exceptions.
107. A brief illustration of the interaction of the use of ICT and structural reforms in the wholesale trade sector – where productivity gains were most notable in recent years – can be found in Box 3 of the 2001 *OECD Economic Survey of Australia*. It draws on the thorough analysis of Johnston, Porter, Cobbold and Dolamore (2000). Another study by the Productivity Commission (2002b) on the Australian motor vehicle industry reports on the improvements in the flexibility and productiveness of automotive workplaces through industrial relations reform which allowed less restrictive work practices, *inter alia* facilitating team-based work and multi-skilling of employees.
108. In Australia, industrial awards generally specify minimum wages and conditions of work for most categories of labour. It is, thus, illegal to employ a worker at a wage or on terms which are less favourable than the relevant award, irrespective of whether a worker is a union member or not. Awards are oriented towards occupations and industries rather than individual workplaces, and many firms are still covered by multiple awards. The terms of awards may be reached by a settlement imposed by the Australian Industrial Relations Commission or similar industrial tribunals by the states, by a combination of conciliation and arbitration, or by conciliation alone. The central role played in the past by industrial tribunals in determining wages and employment conditions was based on the premise that it was in the public interest that the state intervened on an ongoing basis in the employer-employee relationship. See Wooden (2000).
109. For more details on industrial relations reforms, including the different types of collective (certified) and individual enterprise agreements employees (Australian Work-

place Agreements) provided by the WRA, see both the 2000 and 2001 OECD *Economic Surveys of Australia*, Chapters III.

110. These figures only refer to the role of awards in setting wage and salary increases and must not be taken as indicator for their role in influencing employment conditions in general. If agreements which are “add-ons” to awards are included, then award coverage is much higher, possibly over 80 per cent of the labour force.
111. There are uncertainties as to the beneficial effects of formalised individual bargaining on performance at the workplace level, especially if individual arrangements promote competitive behaviour within workplaces which could foster non-co-operative relationships.
112. Wooden, Loundes and Tseng (2002).
113. The Commonwealth government assumes in the projections of its Intergenerational Report 2002-03 (Budget paper No. 5) that, in response to labour market reforms, the NAIRU will decline to 5 per cent within a few years.
114. See the OECD (2001), Growth Project Background Papers, Vol. I-III, a summary of the main conclusions from this study in OECD (2001), and a summary of the analytical studies in OECD (2003), *The Sources of Economic Growth in the OECD Countries*.
115. Details on the estimation technique and the variables used are laid out in OECD (2003), *The Sources of Economic Growth in the OECD Countries*. Supplementary estimates and details on the model selection process for different specifications and sensitivity analysis can be found in Bassanini, Scarpetta and Hemmings (2001).
116. Only the coefficients for the United States, Canada and Switzerland turned out slightly higher.
117. The regressions also show that Australia outperformed the predicted per capita growth by a substantial margin (the residual country-specific effect), which may be attributable to the effects of structural reforms since the mid-1980s.
118. See also the discussion in Parham (2002a).
119. The “allowable matters” set out in the Workplace Relations Act are the following: classifications of employees and skill-based career paths; ordinary time hours of work, rest breaks, notice periods and variations to working hours; rates of pay (such as hourly rates and annual salaries), rates of pay for juniors, trainees or apprentices, and rates of pay for employees under the supported wage system; piece rates, tallies and bonuses; annual leave and leave loadings; long service leave; personal/carer's leave, including sick leave, family leave, bereavement leave, compassionate leave, cultural leave and other like forms of leave; cover parental leave, including maternity and adoption leave; public holidays; allowances; loadings for working overtime or for casual or shift work; penalty rates; redundancy pay and notice of termination; stand-down provisions; dispute settling procedures; jury service; type of employment, such as full-time employment, casual employment, regular part-time employment and shift work; superannuation; pay and conditions for outworkers; provisions incidental to the allowable matters and necessary for the effective operation of the award.
120. For examples of the practice of pattern bargaining in the construction industry and its potential productivity-reducing effects see Productivity Commission (1999c).
121. For example, in the 2000-2001 period, more than 5 160 agreements with identical wage and wage-related provisions, covering more than 68 000 employees, were identified, and 5 280 pattern agreements with identical employment condition, covering nearly 72 000 employees.

122. Protected action means that it is exempt from civil liability. Unprotected industrial action is any action which occurs outside of a bargaining period.
123. Workplace Relations Amendment (Secret Ballots for Protected Action) Bill 2002 [No.2].
124. Workplace Relations Amendment (Improved Remedies for Unprotected Action) Bill 2002.
125. See the OECD *Jobs Study* (1994), Part II, Chapter II, and OECD (1999), *Employment Outlook*, Chapter 2, and OECD (2001), *Innovations in Labour Market Policies – The Australian Way*.
126. The minimum severance pay standard in most awards provides for 8 weeks pay for individuals retrenched after 4 year's service (lesser payments apply for shorter periods of service). Some awards and many agreements provide more. There is also a facility for orders for severance pay pursuant to the ILO's Termination of Employment Convention (C158).
127. The ABS (Small Business in Australia, 1999, ABS Cat. No. 1321.0) defines small businesses as businesses employing less than 20 people; they account for about half of total employment.
128. In July 1999, in the Survey of Investor Confidence of the Australian Chamber of Commerce and Industry (ACCI) about 54 per cent of small businesses indicated that they might have hired more staff had it not been for the unfair dismissal laws. ACCI's Pre-Election Business Survey of November 2001 found that small businesses ranked unfair dismissal laws as the fifth most important problem facing them. Concern about unfair dismissal legislation was also expressed in the Small Business Survey Programme on Employment Issues by the Certified Practising Accountants Australia, although only 5 per cent of the respondents considered the law a major impediment to hiring new staff. The results of this survey also revealed a high degree of false perceptions of the unfair dismissal legislation among small businesses, in spite of the Government's various educational initiatives on the subject.
129. See Wooden, Loundes and Tseng (2002).
130. OECD (2003), *The Sources of Economic Growth in the OECD Countries*.
131. Some public employment service functions continue to be run by the government.
132. The Work for the Dole labour market initiative was announced in the 1997-98 Budget. It aims to involve young job seekers in a work environment and give them the chance to engage with the community rather than being isolated from it. Participation in a Work for the Dole project involves a six month commitment of up to 30 hours per week. Work for the Dole services are managed by Community Work Co-ordinators, who are contracted by the Department of Employment and Workplace Relations to arrange projects with community groups or local government agencies.
133. See the evaluations by the OECD (2001e), the Department of Employment, Workplace Relations and Small Business (2000, 2001) and the Department of Employment and Workplace Relations (2002a), and the references to various other studies given there.
134. The Government Response to the Productivity Commission Independent Review of Job Network (2002a) is available on <http://parlsec.treasurer.gov.au/parlsec/content/publications/2002/JobNetwork.asp>
135. Poverty traps can be avoided by providing 'in-work-benefits'. For a discussion of possible options, such as easing income tests, or introducing an Earned Income Tax Credit scheme or a negative income tax, see for example, OECD (1999a), OECD (2001a), Disney (2000), and Ingles (2001).

136. An Interim Report was issued in March 2000 (RGWR, 2000b).
137. Over the period 1969 to 1999, the proportion of working-age population receiving income support has approximately quintupled, rising from 4 per cent to 21 per cent. The expenditure on income support, (excluding age pensions) as a per cent of GDP, increased from 1.3 per cent to 4.7 per cent over the period.
138. Another important initiative includes the reduction of the maximum rate of taper from 100 per cent to 70 per cent, as part of the "Working Nation" reforms to Newstart allowance in 1995.
139. A way of illustrating the disincentive effects of high METRs is considering increments to net income from a A\$ 100-a-week increase in private income. In June 2001, for example, a single allowee (with no children) would face an METR of 80 per cent on incomes between A\$ 100 and A\$ 200 a week, and 78 per cent on incomes between A\$ 200 and A\$ 300 a week. The METRs can reach 93 per cent for families with four children, and over 100 per cent in case that there are dependant students, as means tests for different benefits sometimes overlap (Whiteford and Angenent (2001).
140. Department of Family and Community Services (2000).
141. Training credits of up A\$ 800 will be granted to people who undertake Work for the Dole or Community Work. Training Credits form a comprehensive programme of work experience and training for unemployed people that can be used to cover the cost for a wide range of competency and accredited courses.
142. Specific measures to improve employment opportunities include extra Job Search Training places, more Work for the Dole places, new opportunities for community work, and enhancements to Intensive Assistance. In addition, Training Accounts for participating eligible indigenous and mature-age job seekers are available to help them paying for training. The new initiatives further include a new Transition to Work programme aiming to assist parents, carers and mature age people who move into work.
143. From July 2002, job seekers aged 18 to 39 years are required after six months of unemployment, and at least annually thereafter, to undertake an activity (community work, part-time work or study), with the Work for Dole being the default for those not having chosen an activity by themselves. Job-seekers aged 40 to 49 years are not required to undertake Work for Dole. For this group, the default is referral to a Community Work Co-ordinator. No changes to activity requirements apply to job seekers aged 50 and over (Budget 2001-02 Paper No. 2, May 2001).
144. To further improve participation, the AWT reform package incorporated a simplification of income test rules for working age pensioners and Parenting Payment recipients. Changes will also make it easier for people to get back onto welfare payments after taking up short-term work or whose job ends soon after they have stop receiving the payment. Also, a Literacy and Numeracy Training Supplement was introduced to help meet such costs as travel to courses (Budget 2001-02 Paper No. 2, May 2001). The changes to participation requirements for people receiving parenting payments and the introduction of the working credit will require legislative change.
145. Income recipients will accumulate credits (up to a maximum of A\$ 1 000) in fortnights in which they have their income falls short of the A\$ 48 threshold. In any fortnight that earned income exceeds the current test free area (A\$ 62 per fortnight for Newstart recipients, and A\$ 106 per fortnight for single working age pensioners, without children), this credit can be drawn down allowing earnings to be retained in full until the credit is exhausted (OECD 2001e). The implementation of the initiative has been

- deferred to April 2003, from September 2002, as part of a wider strategy to ensure people understand the measure and take full advantage of it.
146. The government will provide funding of A\$ 3.3 billion over three years beginning on July 2003 for arrangements associated with the Third Employment Services Contract.
 147. Job seekers will receive Intensive Support after 3 months of unemployment, including job search training and lodgement of vocational profiles on the Australian Job Search Site allowing for automatic job matching. Intensive support is a professional employment service, under the AWT package, that provides individualised assistance to job seekers who have had, or are likely to, experience difficulty in getting a job.
 148. The 2002-03 Budget envisaged a phased implementation of the new measure. Specifically, the new eligibility criteria would apply to all new DSP applicants from 1 July 2003. People who are currently receiving DSP (apart from those who are severely disabled or are within five years of Age pension age) would also be subject to the new criteria within five years of implementation (Budget 2002-03 Paper No. 2, May 2002).
 149. Moreover, the bill provided for those who are not subject to new arrangements and do try out work of 30 hours or more a week, but find they cannot maintain this, to move back onto DSP under the current rules within a two year period.
 150. This estimate is based on revised Disability Reform Bill (No. 2)
 151. The government released in December 2002 a consultation paper on the next steps of welfare reform, inviting for submissions until 20 June 2003. An important issue in the paper is a possible reform of the structure of the current income support payments system for working age people ("Building a Simple System to Help Jobless Families and Individuals", available at www.facs.gov.au).
 152. State and Territory governments have much of the responsibility for running schools and vocation and training programmes, and have often taken the initiative for reforms in their jurisdictions. One change in recent decades has been stronger emphasis on national approaches to assessing performance and qualifications, and the programmes discussed below are at Commonwealth level.
 153. The survey was conducted in the framework of the OECD-sponsored Programme for International Student Assessment (PISA) for 2000. PISA assesses the performance of 15-year old students in three domains: reading literacy, mathematical literacy, and scientific literacy. The major focus for the 2000 study was reading literacy, with the other two domains planned to be the focus in 2003 and 2006, respectively. Australian students, on average, performed consistently well in all of the three assessment domains. In "combined reading literacy" only one country had a mean achievement significantly higher than Australia's. PISA defines as "combined reading literacy" the ability to understand, use, and reflect on texts in order to participate effectively in life (OECD, 2001c).
 154. The findings of PISA (2000) suggest a relatively high overall variation in "combined reading literacy" performance (with 112 per cent of the OECD average between-student variation), with differences between schools accounting for a comparatively small proportion (21 per cent of the OECD average of student variation).
 155. See Sweet (2001).
 156. An additional important initiative includes the introduction in 1998 of the National Training Framework ensuring the quality and national consistency of the VET system, enhancing the industry-relevance of training assessment and removing the rigidity of previous curriculum approaches. See OECD (2001), *Economic Survey of Australia*; OECD

- (2001), *Innovations in Labour Market Policies: The Australian Way*, and NCVER (2001a), *Facts, Fiction and Future*.
157. The New Apprenticeships programme was set out in 1998 to create a unified framework for the traditional four-year apprenticeships (in areas such as manufacturing, construction and public utilities), and the shorter- duration traineeships. The traineeship-type training, introduced in 1985, was originally mainly for 15 to 19 year-olds in services and white-collar areas, but was subsequently expanded to older workers and most industries. For a discussion see OECD *Economic Survey of Australia* 1999 and 2001, OECD (2001) *Innovations in Labour Market Policies*, and OECD (2002) *Employment Outlook*.
 158. Another difference between Australian and European apprentices is that most of the growth in Australia in recent years has been concentrated in the 20+ age group. Only 6 per cent of 15-19 year old Australians were in apprenticeship/trainee schemes, compared with 70 per cent in Germany and Switzerland, and 40 per cent in Austria (NCVER, 2001b).
 159. Trade and related occupations make up 38 per cent of New Apprentices in training but represent 15 per cent of all jobs in Australia.
 160. The non-completion rate for trainees has averaged about 40 percent since 1985, rising to 45 per cent in recent years. Apprenticeship no completion rates are lower, at the order of 23 to 30 per cent (NCVER, 2001a). Research indicates that non-completion of New Apprenticeships in Australia is at a level similar to workplace mobility generally.
 161. See EWRSBE (2000); and OECD (2001e, 2002c).
 162. These contracts require that the employer agrees to provide facilities and expertise to assist the training of the New Apprentice in an agreed qualification. This may include specific on-the-job training, mentoring or time off to attend formal training. The Commonwealth commencement incentive is only granted after three months upon evidence that a training plan is in place and that the training has started. Moreover, the New Apprenticeships are encompassed by the Australian Quality Training Framework, which establishes audible standards both for training providers and for registration of the courses.
 163. Of those participating in the New Apprenticeship scheme, 45 per cent are in low-skill service or labouring occupations.
 164. In 2001, around 81.5 per cent of New Apprentices undertook an AQFIII programme (which is of equivalent level as traditional apprentices were in the past).
 165. Over 94 per cent of Australia's secondary schools are currently offering VET programmes to their senior students, though a 1998 survey indicated that only 10 per cent of 15-19 year olds were enrolled in VET programmes. In 2001 over 169 000 school students undertook programmes that could lead to Certificate I, II, or III qualifications, as well as a senior secondary certificate. Over 10 000 school students undertook New Apprenticeships in 2001, of whom 5 755 were new commencements (ANTA, 2001).
 166. ECEF replaced the former Australian Student Traineeship Foundation (ASTF) in February 2001. Building upon ASTF, it assists students to acquire vocational, enterprise, and career education and experience before they leave school.
 167. Complementary measures to help young people make successful transitions to working life or further education include an online career exploration and information service, as well as The Real Game, an experimental career game.
 168. The findings of PISA (2000) suggest that socio-economic background factors account for 16 per cent of within-school variation in Australia, and 64 per cent of between-school

variation, standing in both cases above the OECD average. Other areas of concern, on the basis of the PISA results, include the relatively low performance of boys in reading, particularly in relation to narrative texts. Boys from disadvantaged backgrounds were twice as likely as girls from similar backgrounds to be in the lowest quarter of reading scores. Overall, the findings suggested that boys were much less engaged in reading than girls. The relatively performance of Indigenous students – in all three assessment domains – is another area of concern. Although the above groups' performance was lower than the average, there were many individuals with good to very good results.

169. The rate of private internal return represents a measure of the returns obtained over time, relative to the cost of the initial investment to education. It is expressed as a percentage and is analogous to percentage returns from investing in a savings account. The estimations treat the costs of study, including foregone earnings, as the investment; and the gains in post-tax earnings above those school-leavers as the pay off. The estimates suggest that the comprehensive private internal rate of return to tertiary education ranges from 6.5 per cent in Italy to 17.3 per cent in the United Kingdom. The corresponding social rates of return range from 4.2 per cent in Denmark to 15.2 per cent in the United Kingdom. Australia was not covered by the sample (OECD, 2002d).
170. Similar conclusions apply to the returns to investment to upper secondary education. *Ibid.*
171. See Commonwealth of Australia (1993).
172. Most State and Territory governments maintain competition units and have appointed independent pricing regulators.
173. The National Competition Council is an independent authority, which provides national oversight of the NCP in order to “help raise the living standards of the Australian community by ensuring that conditions for competition prevail throughout the economy which promote growth, innovation and productivity”.
174. This Act also formed the Australian Competition and Consumer Commission (ACCC), which is an independent statutory authority whose main tasks are to administer the Trade Practices Act and Prices Surveillance Act.
175. Three agreements signed by Australian governments in 1995 establish the National Competition Policy: the Competition Principles Agreement, the Agreement to Implement the National Competition Policy and Related Reforms, and the Conduct Code Agreement.
176. The National Access Regime has been reviewed by the Productivity Commission (2001b) with the conclusion that retention of it is warranted but that some significant changes to its current arrangements are required. The proposed amendments seek to facilitate efficient investment in essential infrastructure and to ensure that the access regime is better targeted and more workable. The Government's response to the review will be finalised after consultations with jurisdictions with jurisdictions. An interim response is at www.treasurer.gov.au/tsr/content/publications.asp
177. See the discussion in the 2001 OECD *Economic Survey of Australia*, Chapter III.
178. The study of the professions by the National Competition Council (2000), in particular legal services and health and pharmaceutical services, identified a range of anti-competitive restrictions related to entry-qualifications, registration requirements, reservation of title or practice, disciplinary processes and conduct of business rules.
179. An interim response is at www.treasurer.gov.au/tsr/content/publications.asp

180. Short, Swan, Graham and Mackay-Smith (2001).
181. Similarly impressive savings are reported in Victoria's 2001 NCP Annual Report.
182. Electricity prices relative to the CPI.
183. Productivity Commission (2002c).
184. Australian Pipeline Industry Association (2001).
185. This has been discussed in the special chapter on "Enhancing environmentally sustainable growth" in the 2001 OECD *Economic Survey of Australia*, and is discussed below in the "sustainable growth" section of this Chapter.
186. Technical efficiency refers to the ability of railway management to produce outputs with a given set of inputs. It is computed, where possible, by accounting for all factors affecting productivity.
187. Australia's rail system is estimated to have achieved a technical efficiency of 69 per cent of best practice (United States, Canada and Japan, Ireland and Luxembourg).
188. Part XIC of the Trade Practices Act 1974.
189. There are a number of other obligations ensuing from the National Competition Policy that the Commonwealth has not met so far. These relate to restrictions on competition in health insurance arrangements, broadcasting and radio-communications legislation, export marketing arrangements for wheat, and automotive and textile, clothing and footwear tariff arrangements.
190. The Government had proposed measures to reduce Australia Post's reserved service and to open the postal market to increased competition in response to the NCC's review of the Australian Postal Corporation Act (1998). However, draft legislation to this effect was withdrawn from the Parliament in early 2001 as it did not attract the support necessary for passage.
191. Banks (2001).
192. A study of the Industry Commission (1995) suggested that the full implementation of the National Competition Policy alone would raise the level (not growth) of annual real GDP in the long run, once all adjustments have taken place, by 5½ per cent.
193. Empirical evidence for the contribution of financial development to economic growth through its effect on the level of investment – even in the case of countries with relatively high income levels – can be found in Pelgrin, Schich and de Serres (2002). For evidence on the links between financial development and growth over and above the links *via* investment, indicating impacts *via* overall economic efficiency see Leahy *et al.* (2001) and the references therein. Research by Rajan, R. G. and L. Zingales (2000) emphasises the particular importance of efficient financial systems for economic growth in countries which are less open to international trade and capital flows.
194. The reforms are based on the recommendations of the Financial System Inquiry (1997), chaired by Mr. Stan Wallis and widely known as the "Wallis Report". A brief overview is given in the 1999 OECD *Economic Survey of Australia*, Chapter III.
195. "Long-tail" insurance involves considerable lags between a claimable incident and the settlement of the claim, and contains uncertainties over the amount, timing and potential length of pay-outs.
196. Commonwealth of Australia (2002), Compensation for Loss in the Financial Services Sector, Issues and Options, www.treasury.gov.au/contentitem.asp?pageId=&ContentID=402

197. Features of CLERP were already discussed in the 1999 OECD *Economic Survey of Australia* in the context of the special chapters on Corporate Governance (Chapter IV) and on Entrepreneurship (Chapter V).
198. Such concerns led the OECD Ministerial Council to suggest that, as from the end of 2001, sustainable development should be integrated into *Economic Surveys* of the OECD.
199. Indeed, the median gross income of elderly couples was only just above one third of the median income of couples aged from 15 to 54, while less than one in four elderly couples had an income above 50 per cent of the median income of younger couples. However, the income level of younger couples needs to be lowered to allow for the fact that they have children.
200. Government benefits provide 90 per cent of the income for 45 per cent of people over 65.
201. This agreement resulted in a national wage award being reduced and the amount of the foregone increase being paid by employers into superannuation funds.
202. The Government announced in 1996 its intention to allow employees earning less than A\$ 900 a month to opt out on a voluntary basis. Legislation to implement this policy has not been introduced into Parliament.
203. For a discussion of this regime see Galer (2002) and for its application to Australia, see Bruner (2002).
204. Under an expenditure tax, income from capital is only taxed when it is consumed, rather than when earned, as would be the case with an income tax. In most OECD countries, retirement saving is accorded such an expenditure tax treatment either by taxing contributions or benefits (but not both) as income and by exempting the capital income of the savings vehicle.
205. This is achieved by taxing contributions and benefits at 15 per cent (subject to a large tax-free element), while taxing the income of retirement saving funds at an effective rate of under 10 per cent.
206. Actual income from capital is not taken into account, rather an income is calculated based on an imputed rate of return of 5 per cent, representing a marginal wealth tax of 2 per cent.
207. For a single homeowner the threshold is A\$ 145 250 (about three times average annual earnings). This is roughly equivalent to the present value of the age pension at retirement.
208. Whiteford and Stanton (2002).
209. In December 2002, the government announced that the tariff on autos would be lowered to 5 per cent by 2010. Clothing tariffs are already planned to fall to 17.5 per cent by 2005.
210. Simons (1997).
211. Such salinity is markedly different to wetland salinity. Dryland salinity stems from reduced water use while wetland salinity results from increased water use.
212. A sustainable yield for surface water is the amount that can be diverted from a river after taking into account the environmental needs of the river basin.
213. In many areas, water rights account for 70 per cent of land values.
214. Much of this and the following sections is based on DIMIA (2001a).

215. International comparisons are highly imprecise because of different statistical definitions. For example, in the case of Luxembourg (this is also true of Germany and some other European countries) foreigners are recorded as those with foreign citizenship, whereas in Australia many of the foreign-born have taken Australian citizenship and would not show up using the Luxembourg definition. On the other hand, some foreign citizens in Luxembourg were born there.
216. Australia became a self-governing federation in 1901, and in that year about 13 per cent of the total population, and over half the overseas-born, had been born in the United Kingdom or Ireland.
217. The next *Economic Survey of New Zealand* will include a chapter on migration.
218. The gain is not the sum of the two net figures for permanent and long-term temporary, because some people included in figure for permanent arrivals may be “category jumpers” included also in the long-term temporary figure. Thus in 1999-2000 net permanent arrivals were 51 000 and net long-term temporary arrivals were 56 000. An adjustment for the 2001-2002 data is not yet available and no data on flows are available for 2000-2001 due to computer system problems.
219. This “back of the envelope” calculation is based on a population aged 15 of some 250 000.
220. While Australia has better data on migration flows than most countries, problems remain. The numbers in this paragraph mostly refer to those from the arrivals and departures data based on border controls. This is different from the immigration visa data (which cannot, for example, pick up departures). In recent years, for example, visas granted for permanent or long-term (over one year) stay exceeded the number of recorded long-term entries by as much as 20-30 000. The main explanation is thought to be visas granted to people already in Australia recorded as “short-term” entries.
221. See Hugo *et al.* (2001). Data for departures are based on a question on the card for outgoing passengers, enquiring if they are leaving permanently. For 2001-2002 21 per cent, 17 per cent and 16 per cent of around 50 000 departures were for the United Kingdom, United States and New Zealand respectively; Singapore and Hong Kong accounted for 7 per cent and 6 per cent respectively.
222. All non-Australian entrants are required to have a visa. New Zealand citizens are automatically issued a visa upon arrival, which entitles them to settle and work in Australia (though not, in itself, to the full range of social security and other government transfer schemes).
223. The website of the Australian Immigration Service, www.immi.gov.au, has complete descriptions.
224. For example, applicants for points based entry must be under 45 years of age and have good (“vocational”) English language skills.
225. An immigrant must register for courses within 3 months of being granted a visa and commence tuition within 12 months. The 510 hours must be taken within 3 years of the visa being granted. Humanitarian and other immigrants have the same entitlement to tuition; eligibility depends essentially on the applicant having a low (below “functional”) level of ability in English. Tuition includes material on getting jobs, housing etc. Highly-skilled immigrants and those granted visas under the employer nominated scheme should already have sufficient English and are not eligible for the AMEP, their dependants may be eligible but would be required to pay a fee.

226. See Auditor General's Audit Report No. 40 2000-2001 on Management of the AMEP Contracts (Australian National Audit Office (2001)). Only 11 per cent of people exiting from AMEP do so with "functional English" (highest level aimed at under the course). On average only about 80 per cent of the time is used. On average 70 per cent of eligible people enrol (58-90 per cent for humanitarian, 60-65 per cent of family visa holders (1998, 1999 figures). The cost of the programme in 1996-97 was A\$ 98.6 million, A\$ 2 531 per participant (2000-2001 prices); in 1999-2000 the programme cost A\$ 93.9 million, A\$ 2 612 per participant, although the programme had by then been contracted out in an effort to reduce costs. Some 14 000 people exited AMEP programmes in 2000-01.
227. The Government also funds language tuition and assistance for school-age immigrants (humanitarian and non-humanitarian) to make the transition into Australian schools. Other programs specifically designed for integration of newly arrived humanitarian and non-humanitarian immigrants provide information about, and referral to other services, support the development of ethnic communities' capacity for self-help and assist other services to be more able to meet the needs of clients who are immigrants.
228. Few recent immigrants report racist sentiment as an element to dislike in Australia. Richardson *et al.* (2002) report that less than 7 per cent of immigrants find the resident population either racist or unfriendly (*i.e.* the two responses taken together), while almost 40 per cent of respondents cite the friendly population as a reason for liking Australia.
229. Vietnamese concentrations in Sydney, and a number of earlier concentrations, are initially due to the location of migrant hostels, perhaps reinforcing a tendency for the low-skilled or low-incomes groups, arriving without jobs, to concentrate more than others. Many migrants in "Vietnamese" areas are of Chinese origin, though having arrived from Vietnam. Other Chinese do not concentrate in these areas. (Jupp, 1995).
230. According to Jupp (1995), this tendency has been less strong in Australia than in other immigration countries, in part due to early opposition of the authorities to such concentrations. The author notes a refusal by the New South Wales government to give public assistance to a group of destitute Italians in 1881 if they attempted to settle together: "the customs of the country and other circumstances render it undesirable, indeed almost impossible, for them to settle down altogether in one locality. Even if this were practicable it would not be for their own good to do so." (Address to the Italian Immigrants, Sydney, 21st April 1881, reported in Jupp, 1995). Nevertheless, in 1991 there were 21 local government areas of 687 Australia-wide (9 in Sydney, 10 in Melbourne and 1 in Brisbane) where over 45 per cent of the population spoke a language other than English at home. None of these areas are dominated by any one language group, however (see Jupp, 1995; Table 5). A quarter of a million people, about 5 per cent of the population, live in these 21 districts.
231. For existing residents, concentrations of immigrants, particularly where incomes are low and unemployment is high, are sometimes viewed as bad in themselves, perhaps through association with crime or cultural hostility. These issues are outside the scope of this chapter.
232. Often interpreted as including future immigrants, although this renders the concept logically unclear.
233. In the past the Immigration Department had a large research section. From 1996 this was largely closed down and its work contracted out to the private sector and academia. Most research work on migration issues in Australia is financed under DIMIA projects, often with tightly-specified terms of reference.

234. By contrast, those whose main motives for migrating to Australia are explicitly economic are in a minority and less than one in six non-humanitarian migrants express dissatisfaction with life in their country of origin. About one quarter of immigrants say they were seeking “better employment opportunities” and about one sixth cite “dislike of economic conditions” in their country of origin. “Joining family”, “better future for family” (which might, however, be thought of as including some economic considerations) and “other *e.g.* lifestyle, climate” are each cited by around one half of immigrants (Richardson *et al.*, 2002).
235. The Business Council of Australia (BCA), for example, would like to aim for a trend GDP growth rate of 4 per cent. Anticipating labour productivity growth of 3 per cent, it calculates that net immigration needs to be of the order of 130 000 people per year, rising to 180 000. At around 1 per cent of the population per year this is a much higher figure than in recent years (the current planned Migration Program of between 100 000 and 110 000 and Humanitarian Program of 12 000 of 110 000 are gross targets, to which estimated net inflows of New Zealanders and of long term temporary visa holders need to be added and from which emigration of around 30 000 needs to be deducted to compare with the BCA figure), though comparable with levels for much of the first two post-war decades.
236. The fact that this includes a quite comprehensive set of minimum wage agreements may explain the relative lack of concern expressed about a possible effect on wages.
237. As noted above, recent work shows that Australians leaving to live abroad are somewhat more highly skilled than immigrants (Hugo, 2001).
238. In recent years, the importance of temporary migration has increased considerably. It is likely to be much more sensitive to short-term labour market conditions than is permanent migration. Rapid growth in temporary inflows in the 1990s may have been a consequence of permanent programme not being expanded significantly as unemployment fell, unlike in the second half of the 1980s.
239. For a survey of literature on a number of countries (not including Australia), see Friedberg & Hunt (1995), for some evidence on Australia see Withers and Pope (1985). A recent paper, Borjas (2002), suggests that the “expected” negative impact of immigration on wages can be detected systematically, at least in the United States, provided biases due to the endogenous responses of native-born labour and earlier immigrants (such as their own decisions to migrate internally) can be controlled for.
240. See, for example, Tian and Shan (1999), Pope and Withers (1993).
241. Some studies allow for this endogeneity, but the range of results does not seem to be very different.
242. Other reasons include the relatively small variation in migrant flows compared with the size of national labour markets in most countries and difficulties in taking appropriate account of factors such as the skill level of migrants.
243. The categories identified in the ABS survey *Labour Force Status and Other Characteristics of Migrants* are: New Zealanders; Refugees; Family sponsored; Employer sponsored; Sponsored by other organisations; Un-sponsored; all others. Employer sponsored immigrants had a lower unemployment rate than the un-sponsored, but it was not statistically significant.
244. Strictly speaking, for immigrants from countries where immigrants to Australia typically have low English language abilities, since census data do not show English-language ability itself.

245. See Birrell and Jupp (2000), Table 4.
246. Econtech (1998) table 3, scenario 3 less scenario 1.
247. The Econtech model has a detailed treatment of labour productivity and activity rates according to skill levels and other characteristics. It uses a skill index based on the link between the qualifications and profession of a migrant and the earnings typically associated with them in Australia. This is unlikely to predict the earnings of an individual very accurately but is perhaps sufficient for looking at large groups.
248. It might be noted that this focus on per capita consumption – adopted because the government asked Econtech to focus on living standards rather than output – might modify the *a priori* conclusion on the effect of the overall migration programme. That is, migration increases per capita consumption by much less than per capita output, because it increases overall investment needs and because the average migrant does not bring as much wealth as already possessed by the average Australian.
249. Per capita consumption in Australia could fall but everyone involved actually have higher consumption than before or, conversely (but less likely), there could be a rise in per capita consumption in Australia even if both immigrants and existing residents were worse off. The first case would arise if immigrants' incomes were very low before arriving in Australia, and then rose while their level remained much lower than the Australian average, while incomes of existing residents rose only a little. The second would occur if immigrant were initially better off than existing residents in Australia but their incomes fell on arriving in Australia (remaining above the average in Australia) while incomes of existing residents fell slightly. The second scenario is obviously very unlikely and the first may be unreasonable too, they are quoted merely to show that a rise in average per capita consumption or GDP in Australia is neither necessary nor sufficient for migration to be "beneficial".
250. This might also be thought to include the resource rent from resource-based industries (which may include tourism as well as the extractive industries). If their long-run output is independent of population, a higher population (whether from immigration or natural increase) reduces per capita incomes. Although this argument is sometimes made, it seems unlikely that it is a very important phenomenon. Extractive industries provide only a small part of Australia's GDP, while the "output" and rent from the tourist industry is likely to increase as more labour is applied rather than being fixed and divided among a larger number of beneficiaries; although one can imagine a limit at some point if population grew so much that the wide open spaces and coastline were seriously diminished or overcrowded with visitors, this limit seems a long way off.
251. Although the image of Australia may be one of wide open spaces and plenty of land to exploit, the population is overwhelmingly urban (and was highly urbanised even at the beginning of the twentieth century) and new immigration goes almost entirely into existing urban centres, so any economies of population scale would have to arise either from the advantages of clustering or market-size considerations.
252. The Secretariat has not conducted econometric investigation in this area, but the conclusion can often depend on the null hypothesis: the null of a homogeneous aggregate production function may not be easily rejected by the data. But if the null hypothesis is that the scale elasticity may differ from unity, then the best estimate may well be that it exceeds unity.
253. Garnaut (2002) argues that the apparent problem of overcrowding in Sydney is less to do with any real overcrowding than with visibly high rates of unemployment and low incomes of certain migrants concentrated in particular parts of Sydney. He argues that

- this problem is at least partly due to Australian labour market institutions that generate higher unemployment rather than lower wages when the supply of low skilled labour increases.
254. See Yourc'h and Price (2001) and the Sustainable Development section of this *Economic Survey*.
 255. Based on a trade off between positive externalities diminishing with population growth, and negative externalities increasing.
 256. One set of theoretical literature discusses a "migration surplus" that arises as new immigrants increase the labour supply, driving down wages of existing residents who compete in the labour market with immigrants, but increasing returns to owners of capital. Such models, which become complicated when capital flows are introduced, are probably of limited application to Australia. Nevertheless, they do suggest that while the gains from immigration generally outweigh the losses, the distributional effects are large relative to the overall gains. See, for example, Borjas (1999).
 257. But see Viviani (1996) who notes that, although certain suburbs contain high concentrations of, for example, Vietnamese, this is not the same as saying that this experience is typical for Vietnamese immigrants, two thirds of whom are geographically dispersed and relatively mobile. Many of those who are concentrated in disadvantaged areas are those who are relatively unskilled, older or with poor English abilities, and consequent high unemployment, characteristics shared with other inhabitants of these areas.
 258. See Chiswick *et al.* (2002), who find some evidence (though at the margin of statistical significance) for Australia that "living in an immigrant/ethnic concentration area appears to raise the occupational status of immigrants..."
 259. High property prices in Sydney are of course a consequence of wealth as much as of population pressure. However, if a disproportionate number of the high-income immigrants increasingly targeted by immigration policy are attracted by Sydney as the business and financial centre of the country, and if concern for the environment restricts the supply of land for new housing, the likely consequence would be property prices rising faster than elsewhere in the country with a resulting tendency for existing property owners in Sydney to "cash in" at some point and move away.
 260. The opposite is true in a few countries. Some discussion of this can be found in OECD (2002).
 261. And is perhaps the most obvious manifestation of "multicultural Australia".
 262. Such migrants are monitored after their arrival. If they are deemed not to have engaged in sufficient business activity within three years, their visas may be withdrawn. In 2000-01 439 such visas were withdrawn, while 7 364 were granted. (McCloughlin and Salt, 2002).
 263. See www.immi.gov.au/facts/27business.htm. OECD (2001) notes survival rates after four years for startup firms of between 40 and 60 per cent across a number of OECD countries (not including Australia). The data from the Australian survey does not indicate whether migrants have had any business failures and started again but, although it is not clear how much allowance should be made for this, the outcome still seems relatively good.
 264. Per capita public debt would nevertheless be affected in general.
 265. However, the figures shown for periods longer than 4 years after arrival are estimates and extrapolations since the LSIA data do not extend that far.

266. See, for example, Auerbach and Oreopoulos (1999), who consider the fiscal impact of immigration on existing residents in the United States using a generational accounting approach. Note that their study shows there is not necessarily a simple answer to the question as to whether immigration is fiscally beneficial or not to existing residents; the answer may depend on assumptions about the existing debt burden and economies of scale in public service provision.
267. Although few immigrants are over 45 compared with the existing population, there are also relatively few immigrant children, and on average, the foreign born have fertility rates very similar to the Australian-born population (see Abbasi-Shavazi, 1998 quoted in Kippen and McDonald, 2000).
268. Rod and Murphy (1997) quoted in Hugo (2002).
269. Both the credits and debits items in the relevant parts of the balance of payments are likely to be underestimates of flows which are likely to continue, at some reduced level, after migrants cease to be treated as migrants in the payments statistics.
270. A 1990 study "Immigration, Trade and Capital Flows" (Bureau of Immigration Research (1990)) entirely ignored these aspects of the issue, concentrating on the potential impact of changes in migration on supply and demand but with no account taken of the possible impact of the geographical origin of immigrants.
271. See Rod and Webster (1995). The authors investigate the use made of the cultural and linguistic skills of persons from East Asia by exporters of food and beverages to Asia. It was found that relatively few successful exporters made use of these skills in their employees, although those that did agreed that this aided export efforts. Kipp, Clyne and Pauwels (1995) also argued that linguistic skills were under-utilised.
272. An informal comparison of changes in Australia's geographical direction of overall trade and changes in the origin of immigrants since the 1970s reveals no clear link between the two patterns.
273. Interview with representative of the Business Council of Australia.
274. See Barrett and O'Connell (2000). They observed a wage premium for returning males of around 10 per cent, controlling for a range of factors; no premium was observed for females.
275. And it should be recalled that although the Australian Council of Social Service reported "terrible hardship" arising from the introduction of the two-year waiting period, a safety net is in place for all immigrants immediately on arrival; many immigrants would no doubt accept this as acceptable treatment, or they would not continue to apply.

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BASIC STATISTICS OF AUSTRALIA

THE LAND

Area (thousand sq. km.)	7 682	Population of major cities, 30 June 2001 (1000) :	
Agricultural area , 1986-87, per cent of total	61	Sydney	4 155
Urban population, 1991, per cent of total	85	Melbourne	3 484
		Brisbane	1 653
		Perth	1 397
		Adelaide	1 111

THE PEOPLE

Population, 31 December 2001 (millions)	19 603	Civilian employment, 2002 (1000) :	9 311
Number of inhabitants per sq. km, 2001	2.5	<i>of which</i> :	
Natural increase, 2001 (1000)	117	Agriculture	405
Net migration, 2001 (1000)	110	Industry *	1 981
		Other activities	6 926

PARLIAMENT AND GOVERNMENT

Composition of Parliament :

Party	Senate	House of Representatives
Australian democrats	7	..
Australian Labor Party	28	64
Independent	3	3
Greens	2	1
Liberal Party of Australia	31	67
National Party of Australia	3	13
Country Liberal Party	1	1
Pauline Hanson's One Nation	1	..
Total	76	149

Present government: Liberal/National Party coalition

Next general elections for House of Representatives is expected by the end of 2004

THE PRODUCTION

Gross domestic product, 2001 (A\$ million)	691 033	Gross fixed capital formation, 2001 percentage of GDP	21.6
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GENERAL GOVERNMENT SECTOR, PER CENT OF GDP, 2001

Current disbursements	35.4	Current revenue	36.2
Current transfers	14.1	<i>of which</i> : Direct taxes	16.5

THE FOREIGN TRADE

Main exports, 2002, per cent of total exports :		Main imports, 2002, per cent of total imports:	
Food, beverages and tobacco	19.5	Food, beverages and tobacco	4.5
Raw materials	18.7	Raw materials	1.7
Fuels	20.6	Fuels	7.3
Machinery and transport equipment	11.9	Machinery and transport equipment	45.9
Other manufactured products	29.2	Other manufactured products	40.6

THE CURRENCY

Monetary unit: Australian dollar		Currency units per US\$, average of daily figures:	
		2002	1.841
		January 2003	1.717

* Including mining, electricity, gas and water, and construction.

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

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The economic situation and policies of Australia were reviewed by the Committee on 5 February 2003. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 25 February 2003.

•

The Secretariat's draft report was prepared for the Committee by Helmut Ziegelschmidt, Vassiliki Koutsogeorgopoulou, Richard Herd and Paul O'Brien under the supervision of Nicholas Vanston.

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