1991/1992

OECD ECONOMIC SURVEYS

AUSTRALIA

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971) and New Zealand (29th May 1973). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention). Yugoslavia has a special status at OECD (agreement of 28th October 1961).

Publié également en français.

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BASIC STATISTICS OF AUSTRALIA

THE LAND

Area (1 000 sq.km)	7 682.3	Urban population, 1989, per cent of total (cities over 100 000)	71
Agricultural area, 1986-87, per cent of total	61	Population of major cities, 1989 (1 000):	
		Sydney	3 624
		Melbourne	3 039
		Brisbane	1 274
		Adelaide	1 034
		Perth	1 158

THE PEOPLE

Population, June 1989 (1 000)	16 833	Civilian employment, 1989 (1 000)	7 728
Number of inhabitants per sq.km	2.2	*of which:* Agriculture	406
Natural increase, 1989 (1 000)	127	Industry[1]	2 056
Net Migration, 1989 (1 000)	106	Other activities	5 266

PARLIAMENT AND GOVERNMENT

Composition of Parliament following latest elections:

Party	Senate	House of Representatives
Australian Democrats	8	—
Australian Labor Party	32	78
Independent	2	1
Liberal Party of Australia	29	55
National National Party of Australia	5	14
Total	76	148

Present government: Australian Labor Party
Next general elections for House of Representatives: March 1993

PRODUCTION

Gross domestic product, 1990 (A$ million)	379 612	Gross fixed capital formation, 1990: Percentage of GDP	22.9

GENERAL GOVERNMENT SECTOR, PER CENT OF GDP, 1990

Current disbursement	33.4	Current revenue	35.3
Current transfers	10.5	*of which:* Direct taxes	18.6

FOREIGN TRADE

Main exports, 1990, per cent of total:		Main imports, 1990, per cent of total:	
Agricultural products and basic materials	30.1	Food, beverages and tobacco	4.6
of which: Wool	8.0	Basic materials and fuels	8.7
Fuels	18.7	Chemicals (incl. plastic)	9.1
Metals and metal manufactures	18.5	Metals and metal manufactures	5.0
Machinery and transport equipment	6.3	Machinery and transport equipment	44.7
Other manufactured products	26.4	Other manufactured products	28.1

THE CURRENCY

Monetary unit: Australian dollar		Currency unit per US dollar, average of daily figures:	
		Year 1991	1.282
		January 1992	1.337

1. Including mining, electricity, gas and water, and construction.
Note: An international comparison of certain basic statistics is given in an annex table.

This Survey is based on the Secretariat's study prepared for the annual review of Australia by the Economic and Development Review Committee on 21st January 1992.

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After revisions in the light of discussions during the review, final approval of the Survey for publication was given by the Committee on 5th March 1992.

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The previous Survey of Australia was issued in February 1990.

Introduction

The Australian economy entered recession in mid-1990 reflecting the lagged effects of tight monetary policy, the investment cycle and adverse terms of trade developments. Notwithstanding strong net exports, by the third quarter of 1991 real GDP (on an income basis) had dropped some 3.2 per cent below the June quarter 1990 level – compared with a decline of around 2.5 per cent in the 1982-83 recession. Unemployment has risen quickly, to around 10½ per cent of the labour force. The rise in the CPI over the year to the December quarter dropped to 1.5 per cent, partly reflecting special factors, and was around 2 points below the OECD average (excluding Turkey). Importantly, inflation expectations have also fallen substantially, indeed to historically low levels, unlike the experience of the previous recession. The recession may have bottomed in the middle quarters of 1991 and there are signs of some recovery in the non-farm economy. Chapter I of the present *Survey* discusses the origins of excess demand in the late 1980s, the ensuing recession and the forces underlying the modest recovery in economic activity. Macroeconomic policy settings are then reviewed, followed by an assessment of short-term economic prospects.

Australia's inflation record is examined in Chapter II. The record was influenced by a range of factors, including aspects of the wage and price formation process and the terms of trade, although ultimately monetary policy settings have had the major bearing on inflation outcomes. The exchange rate was floated in 1983, giving the authorities greater independence to pursue monetary policy goals. The constituency for low inflation in Australia does not appear to have been strong – perhaps, because the cost of achieving low inflation seemed to be relatively high and because of the widespread use of indexation arrangements to protect social security recipients. Inflation came down less in the 1980s than on average in the OECD area, but it has now fallen to low rates and there is a good case for orienting policy towards locking in these low rates. The question is how.

Improving the supply-side flexibility of the economy is also crucial to reducing the cost of consolidating low inflation and achieving better economic performance. Heightened competition and flexibility in labour and product markets, and greater efficiency in the provision of public services, would raise productivity. The case for accelerated microeconomic reform is presented in Chapter III. The industrial relations system is then discussed, highlighting progress to date in changing work practices and the landmark October 1991 National Wage Case decision to allow a shift to decentralised wage fixing at the enterprise level. This is followed by a review of progress in tariff reform, deregulation and privatisation. Conclusions to the *Survey* are presented in Chapter IV.

Subsequent to the finalisation of this Survey, the Government made an Economic Statement on 26 February 1992. The main objectives of the Statement were: to provide a short-term fiscal stimulus to boost the rate of recovery from the recession while keeping inflation low; to further enhance the structural reform process; and to promote productivity growth. Measures announced included *inter alia*:

- increased public investment, and associated microeconomic reform in the road and railway systems and transport links to ports;
- accelerated depreciation for plant and equipment;
- a lowering of sales tax on non-luxury cars from 20 to 15 per cent;
- a one time increase in family allowance payments on 2 April 1992 and ongoing increases in family allowance supplements;
- personal income tax cuts in July 1994 and January 1996.

These measures are officially estimated to boost the Commonwealth budget deficit in FY 1991/92 by A$ 0.5 billion to A$ 6.8 billion, 1.8 per cent of GDP. In FY 1992/93, they increase the deficit by A$ 1.8 billion to A$ 8 billion, 1.9 per cent of GDP. The personal income tax cuts announced in the package will reduce marginal tax rates for the majority of workers to 30 per cent from the present 38 per cent at a fiscal cost of A$ 5.2 billion in FY 1995/96. The Government is committed to restoring a budget surplus by FY 1995/96.

As regards microeconomic reform, the Government announced *inter alia:* the removal of restrictions on foreign bank entry and allowing foreign banks to operate as branches when undertaking wholesale banking activities; the acceleration of aviation reform, including: the reduction of barriers between Australia's domestic and aviation sectors; the development of a single aviation market with New Zealand; the renegotiation of Australian air service agreements, with a pro-competitive approach aimed at enhanced route and capacity arrangements; and the implementation of a policy of multiple designation for Australian international carriers; and that equity holdings among Australian airlines would be permitted. With respect to foreign investment, the 50 per cent Australian equity requirement for new mines and the economic benefits test for acquiring existing mines were abolished and the thresholds below which proposals in most sectors are not examined was increased to A$ 50 million.

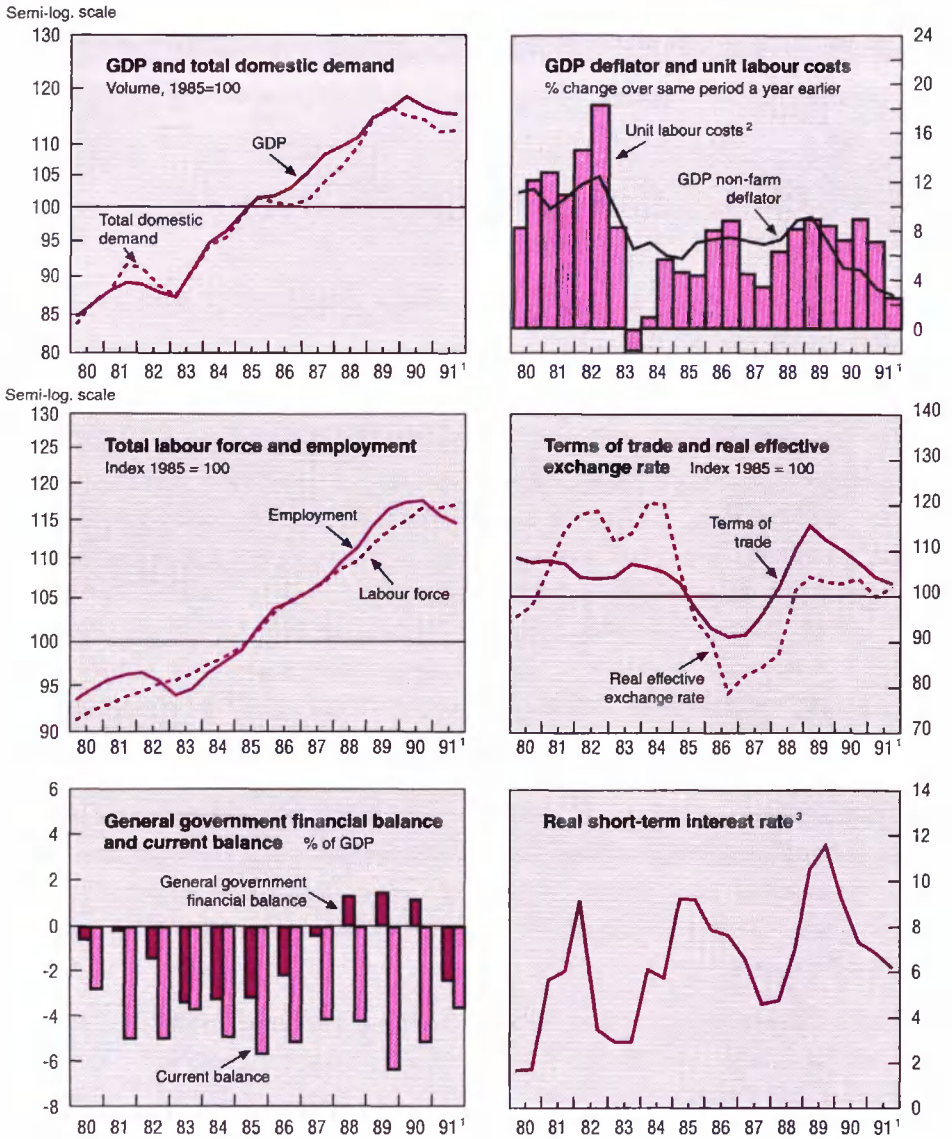
I. Recession and recovery

The origins of excess demand

The Australian economy entered a period of overheating from late 1987. The growth of domestic demand from mid-1988 to mid-1989 was the highest since the early 1970s, with a large spillover into imports and diversion of potential exports to domestic markets. Factors that contributed importantly to the faster than expected growth in domestic demand included: a sharp pick-up in the terms of trade (adding around 4 percentage points to the purchasing power of national income in the two years from end 1986); an unexpectedly strong boost to investment from improved profits, reflecting buoyant economic conditions and a shift in factor shares towards profits; positive effects on business and consumer confidence from fiscal consolidation; and the easing of monetary policy in 1987. While rapid growth in private investment undoubtedly raised productive potential, such benefits were attenuated by the disproportionate share of resources invested in commercial property. The unemployment rate dropped on the back of this expansion to around 5½ per cent in 1989, but cost and price pressures increased (Diagram 1).

Domestic demand proved surprisingly resilient until mid-1989 in the face of the progressive monetary policy tightening which began in April 1988. Cut-backs in housing construction and in machinery and equipment investment, in response to short-term interest rates of 18 per cent and long-term bond yields of close to 14 per cent by mid-1989 were largely offset by strong consumption growth associated with rising terms of trade and employment gains. Another factor in the unexpected resilience of aggregate demand was the interplay of financial market liberalisation, a synchronised asset price boom, a rapid expansion of corporate

Diagram 1. **KEY ASPECTS OF ECONOMIC ACTIVITY**

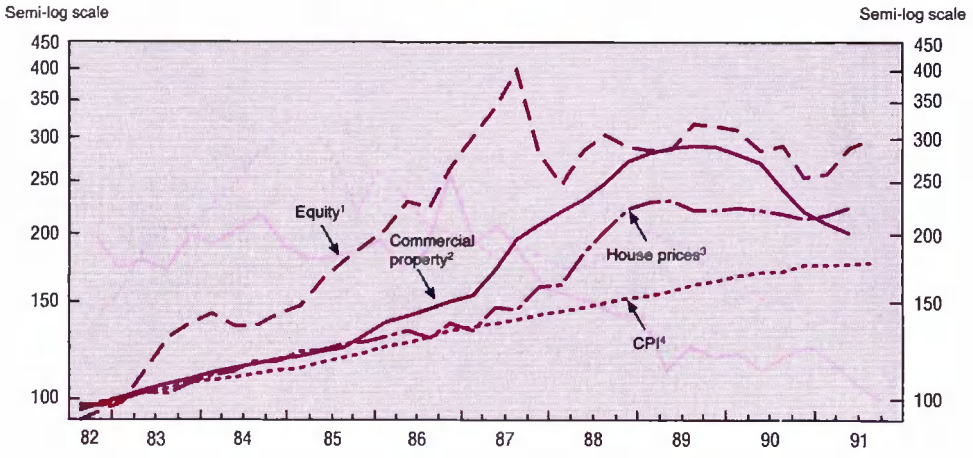


Note: GDP estimates shown are income-based.

1. Estimates for the second-half of 1991.
2. Total economy.
3. 90 days commercial paper rate, deflated by the private consumption deflator.

Source: OECD, *National Accounts, Main Economic Indicators* and estimates.

Diagram 2. **ASSET PRICES**
Index 1982/83=100



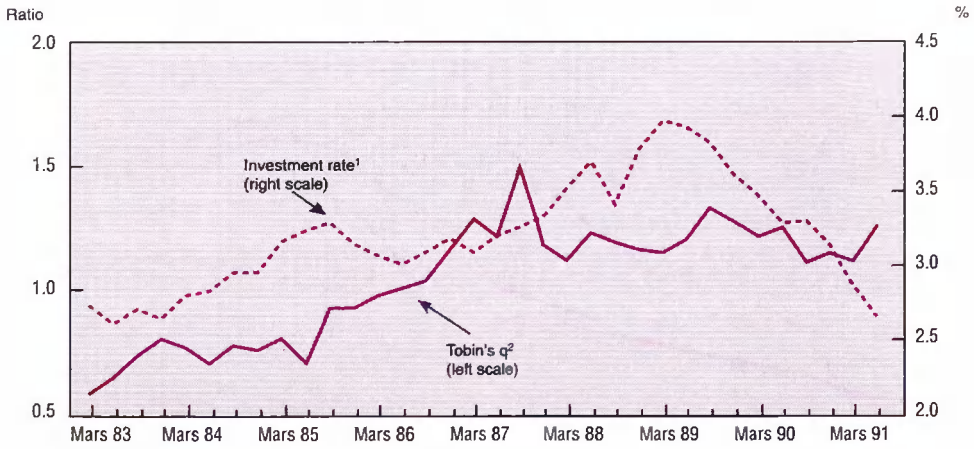
1. All ordinaries share prices.
2. Sydney Central Business District capital value.
3. Residential property prices.
4. Consumer price index excluding health.

Source: Reserve Bank of Australia.

borrowing, and long adjustment lags in commercial property prices (Diagram 2). These factors tended to delay the impact on aggregate demand of the monetary policy tightening.

Total private credit grew by over 20 per cent per annum from 1983 to mid-1989. Lending to the business sector expanded even more rapidly and the corporate debt-equity ratio (measured at book value), which had already been on an upward trend since the early 1980s, reached a peak average of almost 100 per cent in 1988-89. Housing and personal credit also expanded, albeit less rapidly. Investment in structures and equipment increased by 30 per cent or more in the two years to 1988-89 and turned down only in the second half of 1989 (Diagram 3). All in all, given the build-up of private, and notably corporate debt, a correction in spending appeared inevitable, although its size and timing were difficult to predict.

Diagram 3. **TOBIN'S Q AND BUSINESS INVESTMENT**



1. The investment rate is business investment as per cent of the capital stock.
2. Tobin's q for the business sector is the Reserve Bank Tobin's q ratio updated from December 1990 using Treasury estimates.

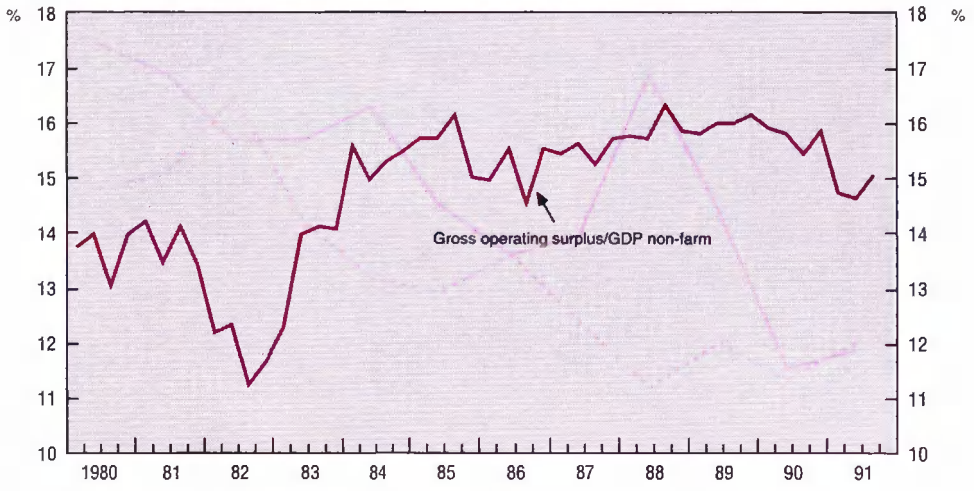
Source: Budget Speech and Statements 1 and 2 of Budget Paper, No. 1, 1991-92.

The 1990/91 recession

Demand and output developments

The recession which began in mid-1990 was more severe than anticipated. The downturn was initially concentrated in business investment as corporations sought to improve their balance sheets, but contractionary forces were amplified by the break in commercial property prices, a fall in the terms of trade and destocking; official estimates suggest that the deterioration in the terms of trade from mid-1989 alone reduced the purchasing power of national income by 2 per cent. At the outset, sustained corporate profitability led most analysts to expect a comparatively modest adjustment to business spending intentions (Diagram 4). But, once commercial property prices fell and cash-flow deteriorated, the interaction of high corporate debt and high interest rates (Diagram 5) strained the debt servicing capacity of corporations, depressed business confidence and put stress on some financial institutions. As businesses retrenched, investment plans were cut or deferred and orders were reduced to work off excessive stock levels.

Diagram 4. **PROFITABILITY**



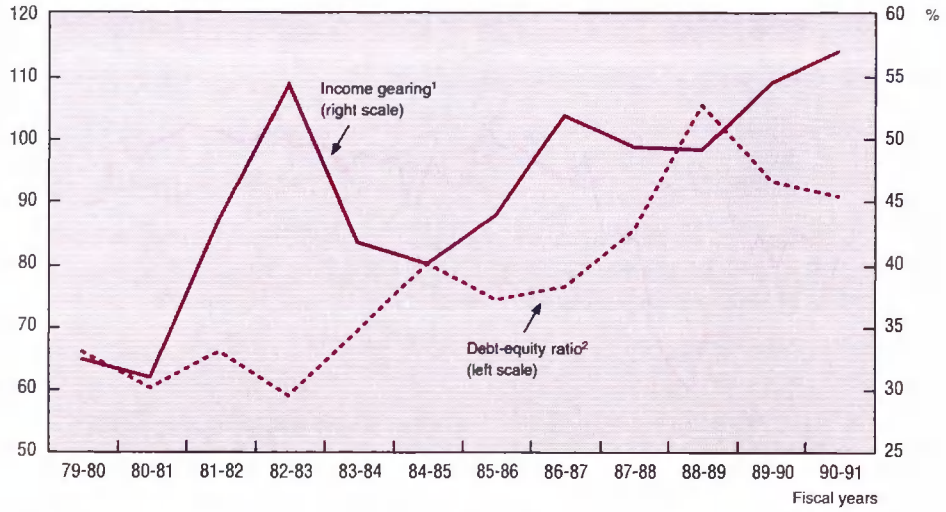
Source: Australian Bureau of Statistics, *Australian National Accounts*, NIF-10s model.

Labour-saving measures were pursued more vigorously and unemployment rose sharply (Diagram 6).

Private gross fixed investment, which had peaked in mid-1989, fell by 24 per cent over the nine quarters to September 1991. Sharp cut-backs in business outlays affected consumer confidence and behaviour. Interest sensitive ''big-ticket'' items (motor vehicles and consumer durables) were especially hard hit. Given a sharper than anticipated fall in final sales, undesired inventories built-up. A rundown in non-farm stocks started in the second quarter of 1990 and contributed importantly to the fall in domestic demand in 1990-91, even though the peak stock/sales ratio was one-fifth below its normal levels of ten years ago[1].

As in past recessions, private consumption, notably of non-durables, has acted to moderate the drop in domestic demand. Private consumption expanded by 3.5 per cent over the two years to September 1991, a little more than half its trend growth over the previous decade, but more than twice that of real disposable income. Although expenditure on housing and consumer durables fell – reflecting increased debt service, lower household and farm income and worse

Diagram 5. **DEBT-EQUITY RATIO AND INCOME GEARING**



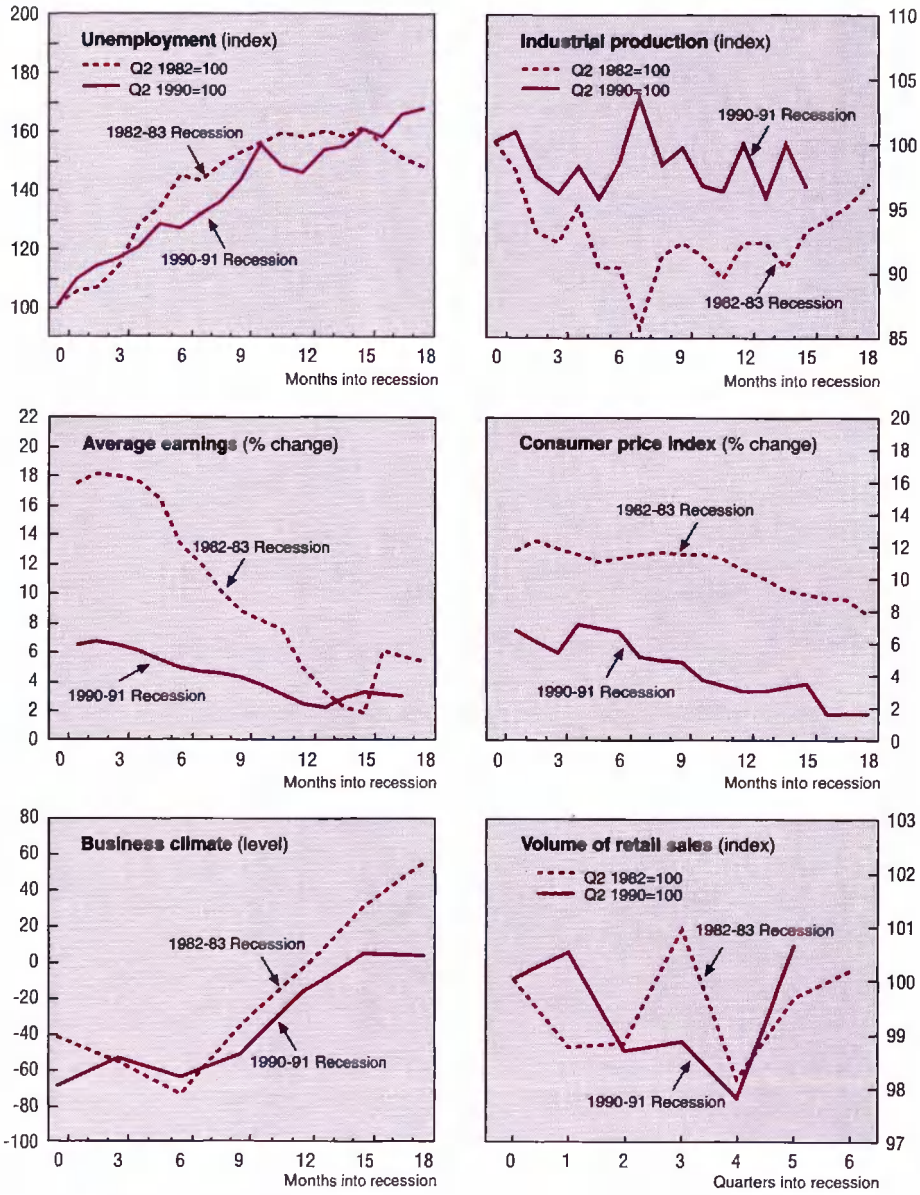
1. Net interest as per cent of net operating surplus for private corporate trading entreprises.
2. Ratio of debt to equity at historical cost.

Source: Australian Bureau of Statistics, *Australian National Accounts*, and Budget Speech and Statements 1 and 2 of Budget Paper, No 1, 1991-92.

employment prospects – , the adjustments were moderated by the absence of a speculative build-up in household borrowing. The household saving ratio declined continuously from late 1989 to mid-1990. All in all, total domestic demand dropped by 5.8 per cent between the March 1990 and the September 1991 quarters – more than four times the drop in GDP – as exports grew rapidly and imports contracted (Table 1).

The current recession has affected all sectors of the economy. Construction output fell by 15 per cent between the March quarter 1990 and the September quarter 1991. Output in manufacturing fell by 8 per cent over this period – with particularly marked declines in transport equipment, non-metallic metal products, fabricated metal products and wood and wood products – but the fall in output has not been as large as in the 1982-83 recession. Agricultural output initially remained steady despite the large fall in farm income, but fell sharply in the September quarter 1991 in response to a severe drought in eastern Australia. Mining output has been flat since March 1990, while growth in output was

Diagram 6. **THE CURRENT RECESSION: COMPARISON WITH 1982-83**



Source: OECD, *Main Economic Indicators.*

Table 1. **Demand and output**

Percentage changes, 1984/85 prices

	From previous year				From previous period, seasonally adjusted annual rate			
	1989	1990	1989/90	1990/91	1989	1990		1991
	Calendar years		Fiscal years[1]		II	I	II	I
Consumption								
Private	5.1	2.5	4.3	1.1	3.8	2.8	0.5	0.8
Public	2.7	3.8	3.9	3.9	4.1	2.7	5.8	1.3
Gross fixed investment	10.7	–5.9	0.9	–8.7	–0.8	–9.4	–3.7	–17.7
of which:								
Government	6.4	7.9	7.2	5.2	9.7	6.9	8.2	–2.1
Private								
Total	11.2	–7.4	0.2	–10.3	–1.9	–11.1	–5.1	–19.6
Dwellings[2]	4.3	–12.4	–9.7	–10.2	–14.9	–13.0	–8.4	–10.8
Other construction	9.4	–9.2	3.8	–14.6	11.1	–18.7	–7.4	–24.0
Equipment	15.0	–10.9	–2.9	–10.1	–12.8	–12.8	–4.8	–17.4
Public enterprises	16.5	13.9	24.5	–6.1	48.7	6.7	1.6	–30.4
Final domestic demand	6.0	0.6	3.4	–0.8	2.7	–0.3	0.4	–3.6
Change in stockbuilding[3]	1.0	–1.4	–0.1	–1.4	0.5	–1.2	–0.8	0.0
of which:								
Private non-farm[3]	0.6	–1.5	–0.7	–0.9	–0.5	–0.7	–1.1	1.0
Farm and miscellaneous[2]	0.3	0.1	0.6	–0.5	1.0	–0.5	0.3	–1.0
Total domestic demand	6.9	–0.7	3.3	–2.1	3.7	–2.7	–1.1	–3.6
Exports of goods and services	2.7	11.3	7.3	12.8	6.9	12.6	13.1	12.5
Imports of goods and services	21.3	–3.3	5.0	–3.8	–0.9	–5.3	–1.7	–6.4
Change in foreign balance[3]	–3.6	2.7	0.2	3.1	0.7	1.7	1.3	1.9
GDP (expenditure-based estimates)	3.4	2.0	3.6	1.0	5.3	0.6	1.6	0.1
Statistical discrepancy[3]	1.0	–0.2	0.1	–2.0	–1.3	1.6	–2.2	–1.1
GDP (income-based)	4.4	1.7	3.6	–1.1	2.4	3.8	–2.9	–2.1
of which:								
Farm	4.1	12.3	9.6	9.9	11.5	13.2	11.1	4.4
Non-farm	4.4	1.4	3.4	–1.4	2.2	3.4	–3.4	–2.3
GDP (adjusted for terms of trade)[4]	5.7	0.9	3.4	–1.9	1.5	3.0	–3.7	–3.2

1. Fiscal years begin 1st July.
2. Including real estate transfer expenses.
3. As per cent of GDP in the previous period.
4. Exports of goods and services revalued by the deflator of imports of goods and services.

Source: Australian Bureau of Statistics and OECD Secretariat estimates.

recorded in communications, community services and electricity, gas and water. Unlike earlier recessions the commercial service sector has been exposed to the drop in activity: the break in the financial and real estate booms, together with deregulation have left over-supply in the financial industry, real estate services and retail sales facilities. The restructuring of government business enterprises prompted by budget constraints has also widened the sectoral impact of the recession.

Regional differences in the 1990-91 recession were more marked than has typically been the case. The Victorian economy, in particular, appears to have been hard hit by the downturn – this state is the most dependent on manufacturing and has incurred the greatest over-supply in the commercial property sector. Falls in employment in Victoria accounted for just over two-thirds of the national decline in 1990/91. Heavy exposure of state-owned banks to property loans and failure of a mortgage trust and building society added to the stress in the financial system and badly affected business and consumer confidence. Given the dependence of State Governments' revenue on property taxes and stamp duties, the drop in the commercial property market has also aggravated the budget positions of states, necessitating reorganisation of government-run businesses and employment cut-backs.

Labour market developments

From 1983 to 1990 the Australian economy created more than 1.5 million jobs, an increase in employment of some 20 per cent – one of the best records among OECD countries over this period. Unemployment began to fall in 1983 and declined steadily to around 6 per cent of the labour force by late 1989; it reached 4½ per cent in Victoria, where labour markets were tightest. Employment peaked in mid-1990 and declined marginally in the second half.

The shake-out in the labour market became pronounced in the first half of 1991 as the recession deepened and companies sought to cut costs. The aggregate rate of unemployment approached 10 per cent in April 1991 and rose above this threshold later in the year (Table 2). From June 1990 to November 1991, almost 278 thousand jobs were lost. The severity of job losses took many analysts by surprise as, in marked contrast to 1982-83, real wages had been held tightly in check. On this occasion, both the decline in domestic demand and ongoing structural adjustment appear to explain the extent of job losses. The recession has

Table 2. **The labour market**

Seasonally adjusted

	1988	1989	1990	1991		1991		
				S1	S2	Oct	Nov	Dec
Civilian labour force[1]	2.8	3.3	2.7	1.4	0.3	0.3	0.3	0.7
of which:								
Males	2.0	2.3	2.1	1.1	0.1	0.1	0.1	0.4
Females	4.0	4.7	3.7	1.8	0.7	0.5	0.5	1.3
Employed persons[1]	3.8	4.4	1.9	–1.6	–2.5	–2.3	–2.3	–2.0
of which:								
Full-time	3.4	3.6	1.1	–2.9	–3.9	–3.0	–4.1	–3.4
Part-time	5.0	8.0	4.9	3.3	2.9	0.2	4.2	3.1
Unemployment rate[2]	7.2	6.2	7.0	9.1	10.2	10.1	10.5	10.6
of which:								
Males	6.8	5.7	6.8	9.4	10.5	10.5	10.9	10.9
Females	7.9	6.8	7.2	8.8	9.6	9.4	10.0	10.1
Juniors looking for full-time work	18.5	15.3	18.8	25.5	29.1	28.4	31.0	28.9
Aged 20 and over looking for full-time work	6.2	5.2	6.1	8.5	9.8	9.7	10.2	10.2
Participation rate[2]	62.4	63.2	63.8	63.4	63.1	63.0	63.0	63.3
of which:								
Males	75.2	75.5	75.7	75.1	74.6	74.7	74.7	74.7
Females	49.8	51.2	52.2	52.0	51.9	51.7	51.6	52.1
Overtime, all industries (hours)[2]	1.4	1.5	1.3	1.2	–	–	–	–
Average weekly hours worked[2]	36.1	35.8	35.9	35.8	–	–	–	–
Hours worked[1]								
Market sector	4.6	3.6	1.4	–2.6	–	–	–	–
Non-farm market sector	4.7	4.5	1.1	–2.5	–	–	–	–
All industries	4.6	3.6	1.8	–1.9	–	–	–	–

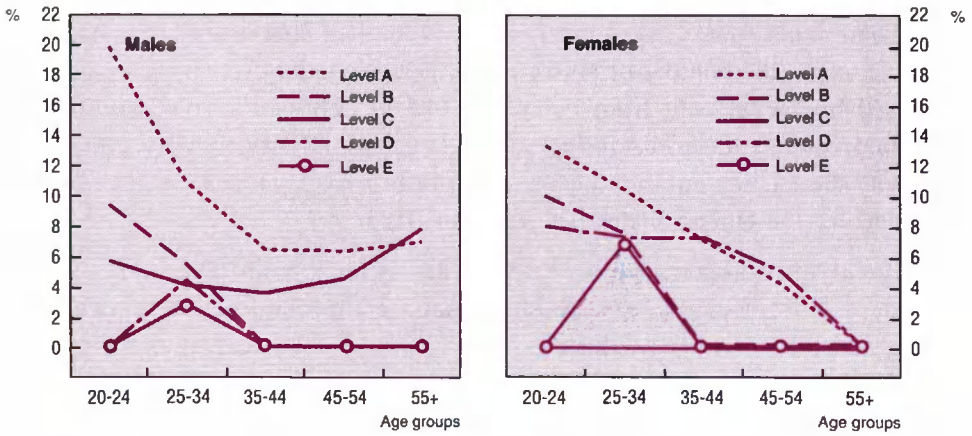
1. Percentage change from corresponding period of previous year.
2. Levels.

Source: Australian Bureau of Statistics and OECD Secretariat.

hit full-time males especially hard. In marked contrast to previous cycles, female labour force participation rates have declined very little over the past year or so, accentuating the rise in unemployment compared with past recessions[2]. Over the twelve months to November 1991, total employment fell by 2.3 per cent, with full-time male employment falling by 4.3 per cent compared with a 3.5 per cent fall for females.

Other indicators confirm the marked weakening in labour market conditions. Part-time employment has expanded to the detriment of full-time male employ-

Diagram 7. **UNEMPLOYMENT AND EDUCATIONAL ATTAINMENT**
1988



Note: Level A: Less than upper-secondary education level.
Level B: Upper-secondary education level.
Level C: Equivalent to upper-secondary education level with vocational/training emphasis.
Level D: Post-secondary education, but not a university degree.
Level E: Higher education level.
Source: OECD, *Employment Outlook*, July 1989.

ment, increasing by 4 per cent in the 12 months to November, with a 16 per cent rise for males. The job vacancy rate was 0.32 per cent in August 1991, basically unchanged from 0.33 per cent in May 1991 but well below the 0.65 per cent in May 1990[3]. Average weekly overtime hours per employee were 1.11 in August 1991, little changed from May 1991 (1.12) but down considerably from May 1990 (1.38). The average duration of unemployment has risen sharply from 39 weeks in January 1991 to 48 weeks in November 1991. The median duration of unemployment rose from 11 to 23 weeks, with all strata of the labour force being hit. Immigration inflows have slowed noticeably.

There is a strong inverse relation between educational attainment and unemployment in Australia, as elsewhere (Diagram 7). In February 1991, unemployment rates ranged from 4.2 per cent for persons with a university degree, to 6.6 per cent for those with trade qualifications and 7.6 per cent with a diploma. For individuals who did not finish secondary school, the unemployment rate was

11.5 per cent, with a significantly higher median duration of unemployment[4]. Job search characteristics single out lack of job skills as the main impediment to finding employment, after age (too young or too old)[5]. Notwithstanding significant progress in raising basic education and vocational attainment levels over the past five years (the number of persons with post-secondary school qualifications increased by 23 per cent from February 1986 to February 1991)[6], insufficient skills or greater skill mismatches related to structural adjustment may explain, in part, why the median duration of unemployment at cyclical peaks is higher than in Canada or the United States (see Chapter III).

Employment losses have been spread across most industries. In the twelve months to November, there were sharp falls in the construction, agriculture, mining and manufacturing industries. Unlike the 1982-83 recession, there have also been employment losses in the finance, property and business services sector and wholesale and retail trade. Employment gains have continued to be made in the community and personal services sectors.

Cost and price developments

The weakness in the real economy and restraint in nominal wages growth has resulted in remarkably quick disinflation. Even allowing for the steep fall in world agricultural prices[7] and lower industrial materials prices, the speed and breadth of disinflation over the past twelve to fifteen months has been impressive:

- Australia's inflation rate is currently under the OECD average for the first time in a decade;
- The current disinflation has been about one and a half times that of the 1982-83 recession, for only a slightly larger drop in non-farm GDP from its estimated trend;
- The rise in the non-farm GDP deflator, a broad measure of output prices, slowed sharply. Over the four quarters to the September 1991 quarter, this inflation indicator dropped to 2.4 per cent from 4.9 per cent a year earlier (cf. Diagram 1). Indeed, over the six months to June 1991, non-farm prices declined absolutely by a small amount;
- Most measures of goods price increases (manufactured goods, materials used, exports) had dropped to the 2 to 3½ per cent range (over a year earlier) by mid-1991 (Table 3).

Table 3. **Costs and prices**

Percentage change from corresponding period of previous year

	1988	1989	1990	1991		
				Q1	Q2	Q3
National accounts deflators[1]						
Private consumption	7.0	6.7	6.2	4.9	3.8	3.6
Total domestic demand	6.4	6.2	5.3	4.3	3.0	3.4
GDP	9.0	7.9	4.2	2.6	1.5	2.0
Exports of goods and services	10.3	5.3	–1.2	–1.5	–6.1	–3.8
Imports of goods and services	–2.6	–1.9	3.5	4.4	–1.1	0.8
Non-farm GDP	8.2	8.3	4.9	3.8	2.9	2.4
Consumer price index	7.2	7.6	7.3	4.9	3.4	3.3
Wage cost						
Average weekly earnings, all employees	6.6	7.0	6.6	6.9	3.0	3.1
Award rate of weekly pay[2]	5.6	6.1	5.7	4.3	3.1	2.4
Average non-farm earnings	7.1	7.5	7.3	5.3	2.0	3.4

1. Derived from seasonally-adjusted series.
2. Annual and quarterly numbers use a weighted average of the monthly award rates of pay index, reflecting the fact that the index is end-of-month.

Source: Australian Bureau of Statistics and OECD Secretariat.

Consumer price inflation has similarly come down quickly. Indeed, over the six months to June 1991, the total CPI was virtually stable and then rose only 0.6 per cent in the September quarter. Using the consumption deflator, which is less affected by movements in mortgage interest rates, the 12 month rate of increase has dropped from 6 per cent in the June 1990 quarter to 3.6 per cent by the September 1991 quarter. Over the same period, the total rate of CPI inflation fell from 7.7 to 3.3 per cent. Unlike in previous recessions, prices fell in some service sectors, such as travel and accommodation, in part reflecting the effects of deregulation and price cutting in response to heightened competition.

Nominal wage developments have contributed to disinflation. Over the twelve months to June 1990, the rise in ordinary-time earnings was 6.6 per cent and in award wages 5.8 per cent[8]. In the twelve months to June 1991, the rates of increase in these wage indices had dropped to 5.0 and 2.3 per cent respectively. The abrupt drop in the growth of award wages in the second quarter of 1991 followed the Australian Industrial Relations Commission's (AIRC) April 1991 decision to defer enterprise-based productivity bargaining and to limit wage

increases to 2.5 per cent. The initial refusal by trade unions to accept this decision meant that many employers incurred little or no increase in wages in 1990/91. More recently, AIRC approvals of agreements under the April decision have picked up (see Chapter III).

A part of the striking disinflation gains over the past twelve to fifteen months has reflected one-off factors (falling energy and commodity prices); some of which may be partially reversed, especially the squeeze on profit margins, once the domestic and world economies begin to pick up. Nonetheless, there is little doubt that "core inflation" is at its lowest level in two decades and this is affecting inflation expectations (see below). In the near term, inflation is likely to remain subdued in the absence of major external shocks or destabilising policy actions.

External trade and balance of payments

The current account deficit improved markedly in the twelve months ending June 1991. The balance on merchandise trade swung into surplus for the first

Table 4. **The current account**[1]
A$ billion

	1986	1987	1988	1989	1990	1991	
						S1[2]	Q3[2]
Exports	33.2	37.5	41.8	45.9	49.8	26.4	13.8
Imports	36.3	38.1	43.1	51.0	49.8	24.3	12.3
Trade balance	–3.1	–0.7	–1.3	–5.1	0.0	2.1	1.5
Services, net	–11.9	–12.3	–13.9	–20.1	–21.7	–10.4	–5.3
Investment income, net	–7.5	–8.6	–10.7	–14.4	–17.7	–8.9	–4.4
Non-factor services, net	–4.3	–3.7	–3.2	–5.7	–4.0	–1.4	–0.9
Private transfers	1.2	1.7	2.2	2.7	2.3[3]	1.2[3]	0.6[3]
Official transfers	–0.3	–0.3	–0.3	–0.2	..	..	..
Invisibles, net	–11.0	–10.8	–12.1	–17.6	–19.4	–9.2	–4.7
Current balance	–14.1	–11.5	–13.3	–22.7	–19.4	–7.0	–3.2

1. OECD definitions.
2. Seasonally adjusted.
3. Including official transfers.
Source: Australian Bureau of Statistics and OECD Secretariat.

time since FY 1987/88, and there was a small reduction in the deficit on services, which had risen steeply over the past five fiscal years[9]. For FY 1990/91, the current account deficit was some A$ 15.7 billion compared with A$ 22.2 billion in the previous fiscal year (Table 4). Expressed as a share of GDP, the deficit was 4.1 per cent of GDP, the lowest figure since 1987/88. For calendar year 1991 the OECD estimates a deficit of roughly 3½ per cent of GDP, the third highest among OECD countries.

Table 5. **Trade volumes and prices**

Percentage changes from previous year

	1987	1988	1989	1990	1991 S1[1]
Export volumes					
Total goods	9.3	0.2	3.5	12.2	14.1
Food	–1.9	–12.2	5.3	7.0	6.4
Manufactures	25.3	12.3	11.1	17.0	18.6
Energy	12.6	0.9	–2.9	27.3	15.3
Raw materials	4.4	–0.4	–1.8	–3.8	13.9
Export prices					
Total goods	3.8	11.3	5.9	–3.3	–5.7
Food	0.4	15.1	8.7	–1.1	–9.2
Manufactures	10.8	9.5	–0.5	–4.2	–5.0
Energy	–10.8	–10.2	10.4	7.3	6.9
Raw materials	10.4	22.7	7.4	–4.2	–14.0
Import volumes					
Total goods	2.6	16.6	21.3	–3.6	–5.3
Food	5.0	10.3	15.6	–1.0	–2.5
Manufactures	1.3	18.7	21.0	–2.0	–7.6
Energy	–1.5	11.2	47.8	–21.0	4.7
Raw materials	11.5	11.3	9.6	–1.1	1.0
Import prices					
Total goods	2.4	–3.1	–2.3	1.4	1.3
Food	0.6	–3.9	–4.4	1.3	–2.4
Manufactures	1.6	–3.8	–1.4	–0.9	1.1
Energy	11.7	–17.4	3.5	33.0	–11.0
Raw materials	3.4	4.5	–1.4	–1.7	10.6
Memorandum item					
Terms of trade					
Total goods	1.3	14.8	8.3	–4.6	–6.9

1. Seasonally-adjusted annual rate over previous half-year.

Source: OECD Secretariat.

The drop in the current account deficit in FY 1990/91 essentially reflected three factors:

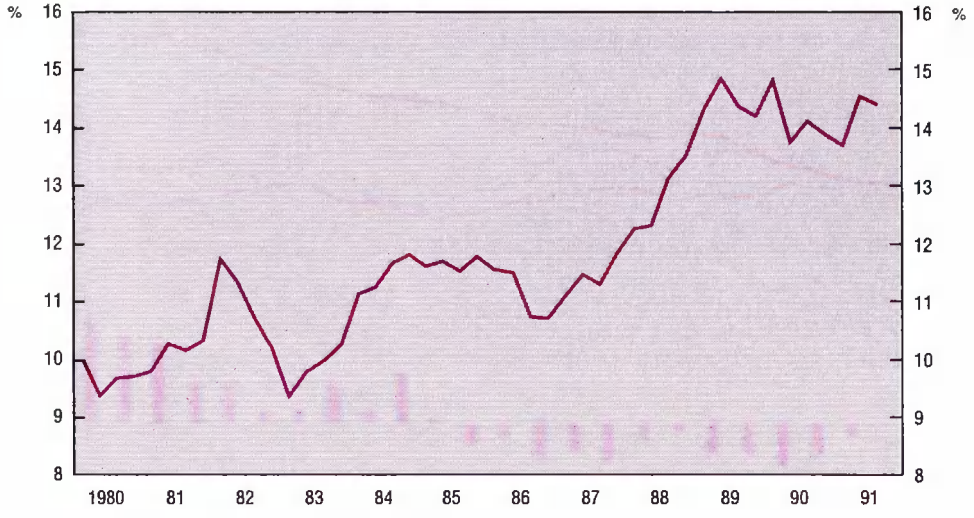
- strong export performance in response to an improvement in relative export prices of manufactures, measured in a common currency, since mid-1988;
- a drop in imports, reflecting weak domestic demand and unutilised domestic capacity;
- the damping effect on net foreign interest payments of steeply falling domestic and foreign interest rates.

In FY 1990/91, merchandise export volumes advanced by more than 14 per cent; rural exports rose by 6 per cent and non-rural exports by 18 per cent, albeit boosted by special factors (Table 5)[10]. By contrast, the value of merchandise imports dropped by 3 per cent in response to the drop in domestic demand. Endogenous import volumes[11] fell by roughly 3½ per cent in FY 1990/91, much less than in previous recessions, leaving import penetration at near peak levels (Diagram 8).

Australia's terms of trade on goods and services fell by 5 per cent in FY 1990/91. Prices for exports of goods and services fell 3 per cent, while the corresponding deflator for imports rose 2 per cent (cf. Diagram 1). Following a peak in early 1989, the terms of trade have fallen by some 15 per cent, implying that the "purchasing power" of a given volume of exports has been reduced by the equivalent of around 2 per cent of GDP over the past two years or so (cf. Table 1).

The net services deficit, which had grown rapidly in the 1980s, narrowed by almost A$ 0.5 billion in FY 1990/91 reflecting, *inter alia,* increased inbound tourism. While external liabilities continued to rise, the impact on the net investment income deficit was moderated by rapidly falling domestic and foreign interest rates, especially over short maturities (about 40 per cent of Australian gross foreign debt is payable within one year). Weak domestic corporate profits and a reduction in corporations' overseas debt also contributed to the fall in the net investment income deficit. Debt interest nonetheless remains very high, at some 20 per cent of exports of goods and services in 1990/91 (net dividends accounted for an additional 5 to 6 per cent).

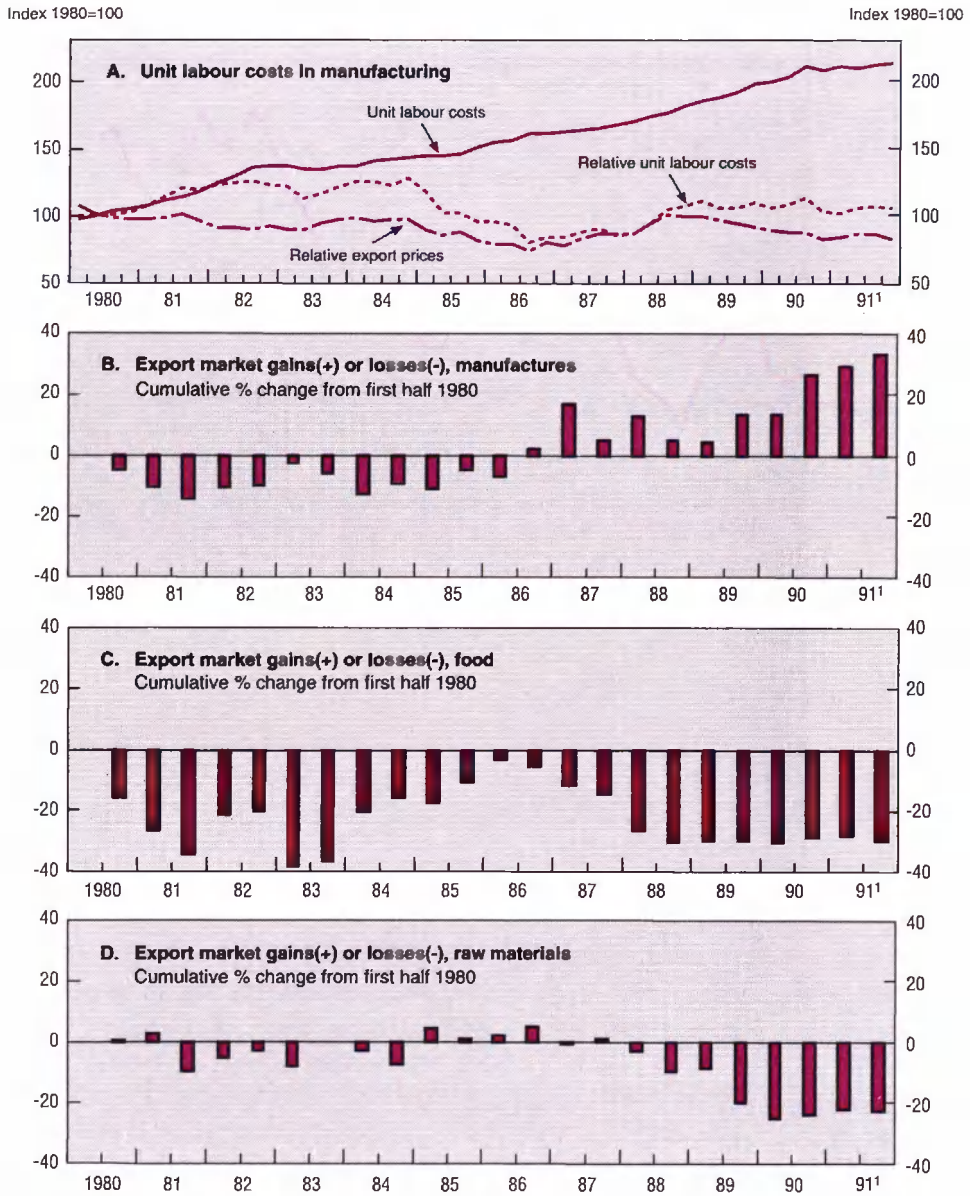
Diagram 8. **ENDOGENOUS IMPORT**[1]
As a share of total domestic demand



1. Average 1984-85 prices,seasonally adjusted.
Source: Australian Bureau of Statistics, NIF-10s model, and OECD Secretariat.

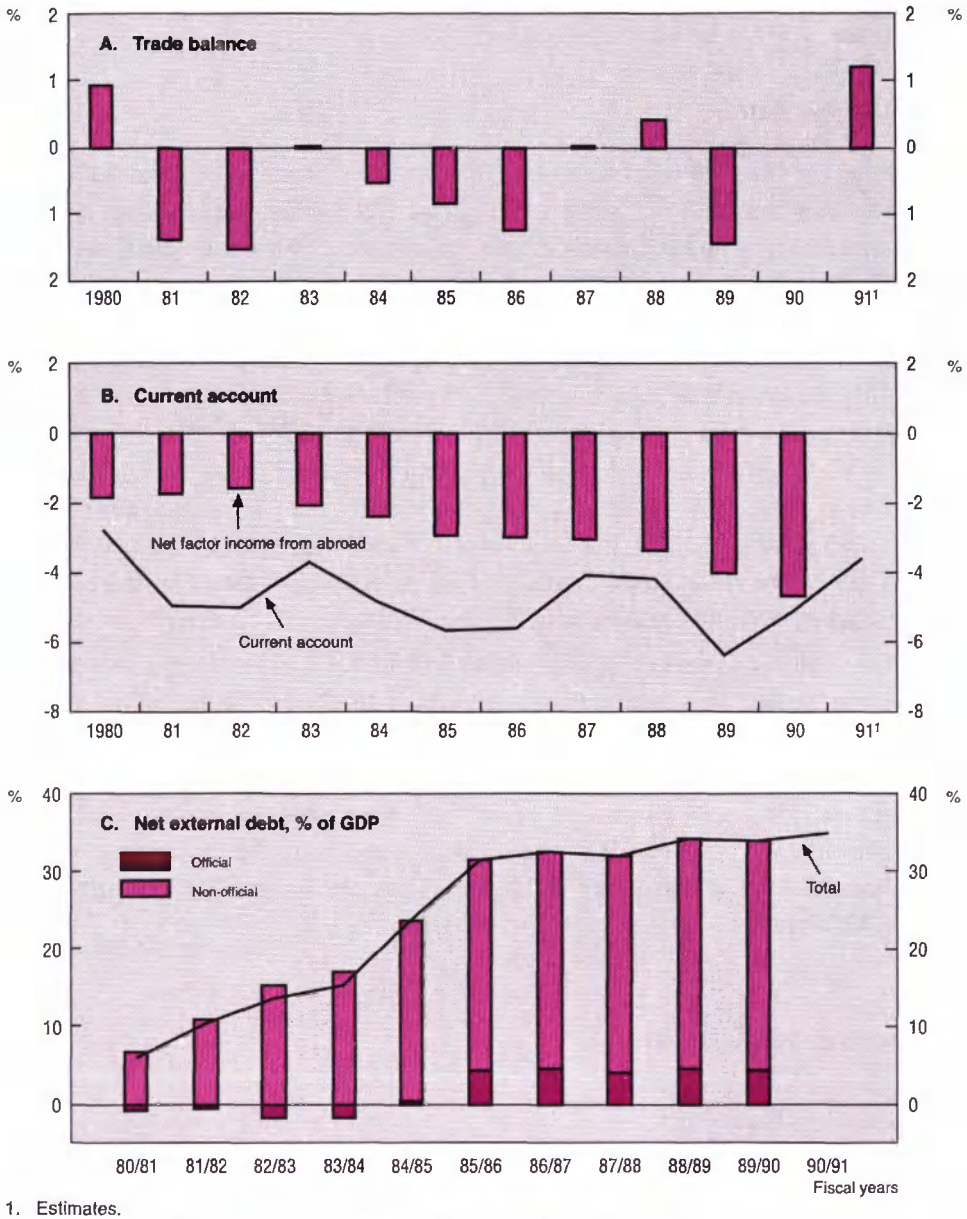
There are some signs that the recent reduction in the current account deficit may reflect an improvement in the underlying trend, as well as cyclical and special factors (Diagram 9, panel A). Since 1986, the growth of Australian manufactured exports has substantially exceeded that of world trade and of G-7 countries' exports (cf. Diagram 9, panel B). This performance has been achieved across a wide range of manufactured products, and has been favoured by proximity to the fast growing Asia-Pacific economies and redirection of Australian exports to them. Between 1983/84 and 1989/90, non-metal manufactured exports grew at a 17 per cent annual rate, increasing their share in total exports of goods and services from 10 to 13 per cent. In FY 1989/90, the volume of these exports grew by 26 per cent to become Australia's major export earner (ahead of metal ores, coal and tourism). The establishment of a broader product mix and export market base has partially offset weak performance in traditional exports of raw materials and rural products, as well as low commodity prices in world markets

Diagram 9. **UNIT LABOUR COSTS AND INTERNATIONAL COMPETITIVENESS**



1. Estimates for the second-half of 1991.
Source: OECD estimates.

Diagram 10. **CURRENT ACCOUNT AND EXTERNAL DEBT**
As per cent of GDP



1. Estimates.

Source: Australian Bureau of Statistics, *Foreign Investment Australia; OECD, National Accounts* and estimates.

(cf. Diagram 9, panels C and D). Restricted access to foreign agricultural markets and very high agricultural export subsidies of some OECD countries have severely depressed world commodity prices for products in which Australia is among the world's lowest cost producers.

Capital flows

Prior to the 1980s, equity was the dominant form of capital inflow to Australia. Capital outflows were small (in part due to exchange controls). The 1980s witnessed a sharp change in this pattern. In 1980, net external debt was equivalent to 6 per cent of GDP and accounted for 25 per cent of net external claims on Australia. By March 1991, net external debt had increased to 35 per cent of GDP and accounted for 75 per cent of net external claims (Diagram 10). The sharp increase in debt in the 1980s reflected *inter alia,* world-wide deregulation of financial markets and the abolition of capital controls, thereby allowing greater access to foreign markets and a general shift to debt financing. Australian saving also flowed abroad in response to widening financial opportunities, and assets abroad rose from 4 per cent of GDP in June 1983 to 14 per cent in March 1991. The net external claims and net external debt data also indicate that foreign equity holdings in Australia declined in relation to GDP over the decade.

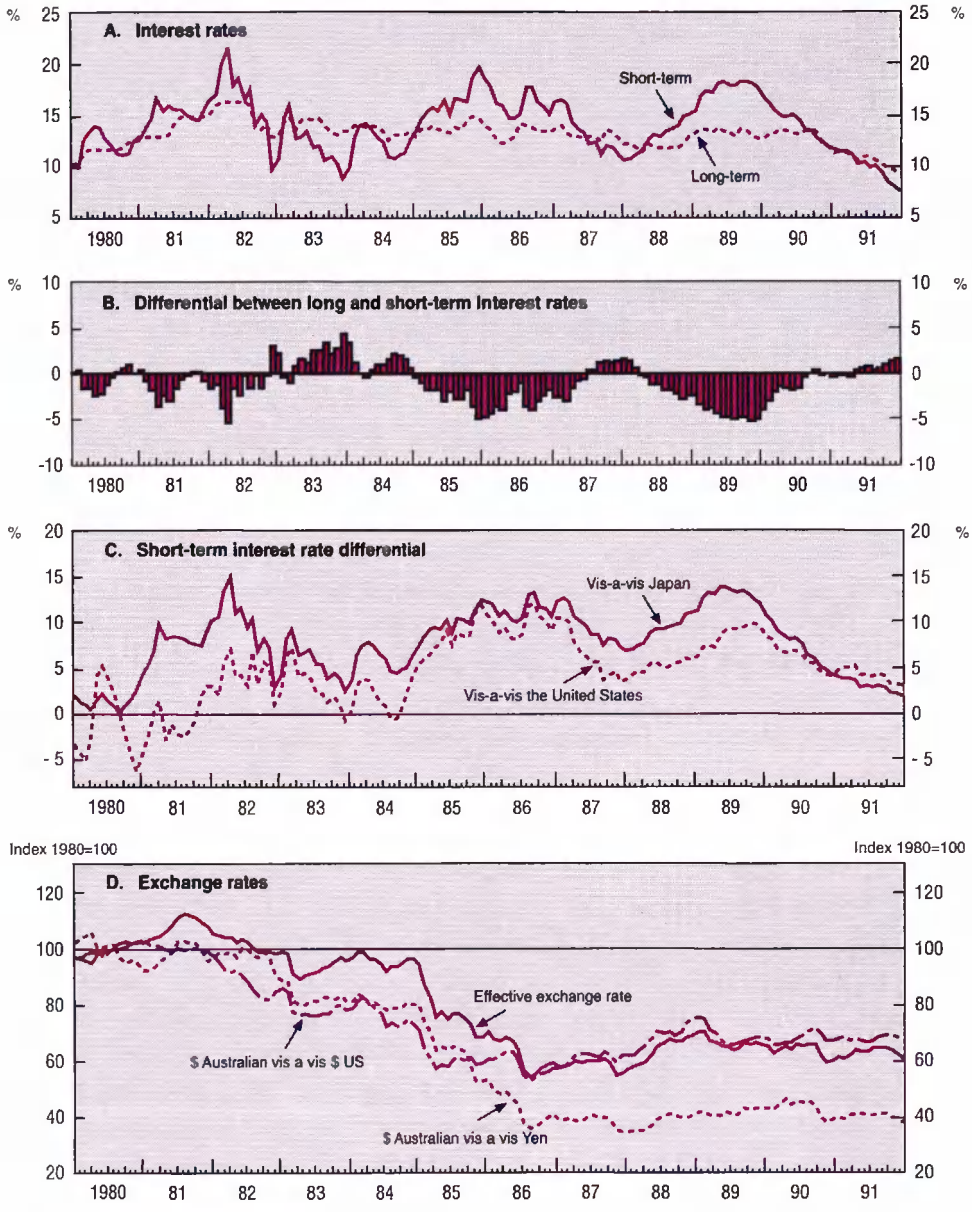
The composition of net capital flows in 1990/91 shifted back to the pattern before the 1980s: net equity flows accounted for 70 per cent of net capital transactions. As in a number of other OECD countries, this reversal reflected debt/equity swaps in the company sector, as lenders accepted equity in exchange for debt claims which borrowers could no longer service. At the same time, Australian firms have sold off foreign investments, using the proceeds to reduce domestic and foreign borrowing. These developments have stabilised the foreign debt-to-GDP ratio.

Economic policy settings

Monetary policy

Following an easing of monetary policy from early 1987 to October 1987, and a small cut in interest rates in the wake of the October 1987 world

Diagram 11. **INTEREST AND EXCHANGE RATES**[1]



1. All interest rates are nominal rates.

Source: OECD, *Main Economic indicators.*

stockmarket events, policy was progressively tightened between April 1988 and June 1989. By mid-1989 monetary policy was very restrictive:

- short-term nominal interest rates reached a peak of slightly more than 18 per cent, implying real rates of almost 10 per cent; and
- short rates exceeded long rates by some 5 percentage points (Diagram 11).

As it became clear that the tight stance of monetary policy would not be reversed quickly and financial distress intensified, the asset price boom which had been underway ended – and in some sectors, notably commercial and industrial real estate, prices began to fall sharply. The interaction of an end of the asset price boom with highly indebted corporations and, from the second half of 1989, a fall in the terms of trade combined to slow the excessive growth of domestic demand. Inflation expectations declined significantly from early 1989 and inflation fell markedly from the March quarter 1990 (leaving aside the effect of the Gulf War). Measured inflation expectations were in excess of actual inflation throughout the 1980s – this is still the case, but the gap between the two has narrowed markedly. The decline in inflation expectations to the lowest levels since the 1960s represents a fundamental break and enhances the prospects for the sustainability of low inflation. All in all, the lags with which higher interest rates affect behaviour may have *lengthened,* given the buffer of higher levels of wealth, financial market innovation and asset price inflation[12]. But the eventual impact of monetary policy on private sector spending has proved strong owing to high debt levels, especially in the corporate sector.

As clear signs emerged of reduced demand and inflation pressures, monetary policy began to be eased. Interest rates were lowered further as inflation and inflation expectations improved, while the outlook for economic activity deteriorated. Overnight cash rates were cut by 10½ percentage points in eleven steps beginning in January 1990, dropping to around 7½ per cent in early January 1992 (Table 6). The inverted yield curve flattened considerably over this period, becoming essentially flat in August 1990 and then modestly upward sloping by November 1991. Real interest rates also fell over this period, especially over short maturities, to around 5 per cent in December 1991.

The success in reducing inflation is evident, but what is crucial for its future is that inflation expectations have also come down (Diagram 12). Survey data

Table 6. **Announced reductions in cash rates since early 1990**[1]

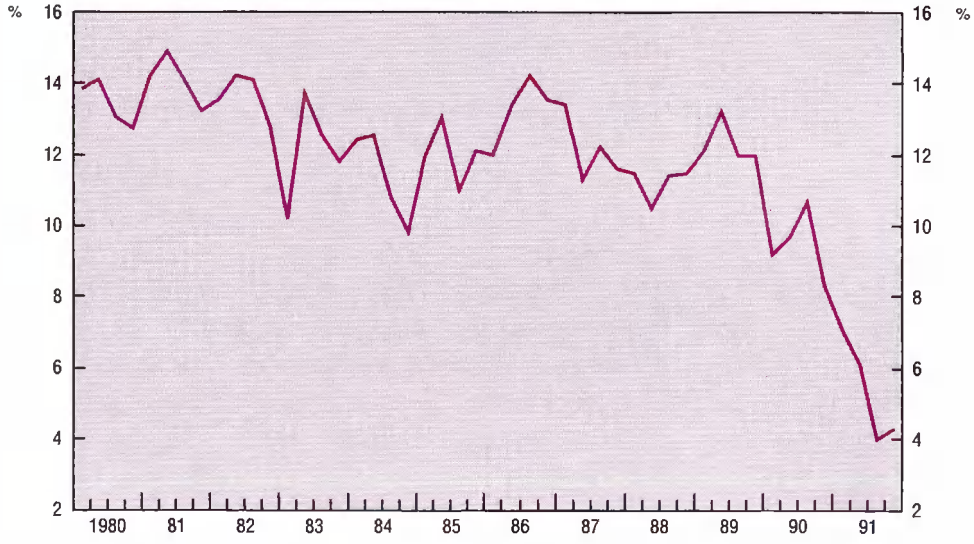
Percentage points

23	January 1990	½-1
15	February 1990	½
4	April 1990	1-1 ½
2	August 1990	1
15	October 1990	1
18	December 1990	1
4	April 1991	½
16	May 1991	1
3	September 1991	1
6	November 1991	1
6	January 1992	1

1. The cash rate is charged on overnight loans to the money market. The Reserve Bank alters the rate by adding liquidity to the market or by draining liquidity.

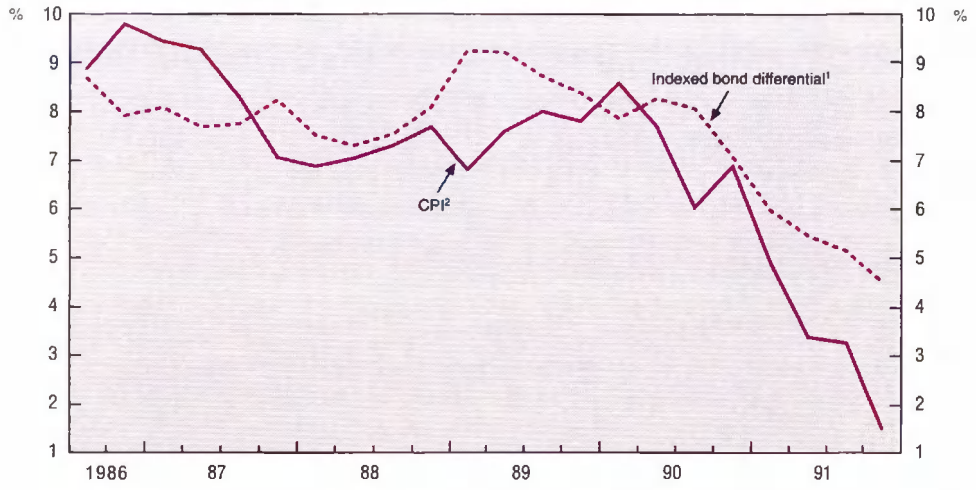
Source: Reserve Bank of Australia, *Annual Report.*

Diagram 12. **INFLATION EXPECTATIONS OVER THE NEXT TWELVE MONTHS**



Source: University of Melbourne, Institute of Applied Economic and Social research.

Diagram 13. **INFLATION AND THE INDEXED BOND DIFFERENTIAL**



1. The difference between the weighted average real yield of indexed Treasury bonds and nominal 10 year Treasury bond yields.
2. Percentage change over same quarter of previous year.

Source: Reserve Bank of Australia, and OECD, *Main Economic Indicators.*

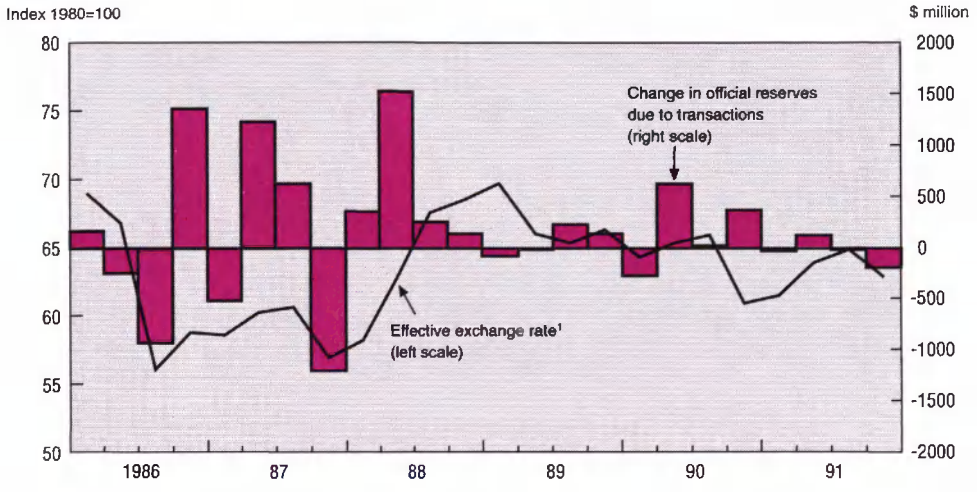
indicate a marked drop in short-term inflation expectations. The Westpac-Melbourne Institute survey indicates expected inflation over the coming year at 4.3 per cent in December 1991, down from 8.3 per cent a year earlier. Financial market ''long-term'' inflation expectations have also fallen markedly, from a peak of 9 per cent in early 1989 to around 4½ per cent in December 1991 (Diagram 13). Whereas inflation has always fallen in past recessions, the marked reduction in inflation expectations is unique to this downturn. The challenge to the monetary authorities is to ensure that the change in expectations achieved during the current downturn is ratified by performance and thereby locked in.

Exchange rate developments

Notwithstanding a marked easing in monetary conditions since January 1990, and a deterioration in the terms of trade, the Australian dollar remained remarkably stable over much of the last two years. The Reserve Bank was a net

Diagram 14. **EFFECTIVE EXCHANGE RATE AND OFFICIAL RESERVES**

Index and $ million



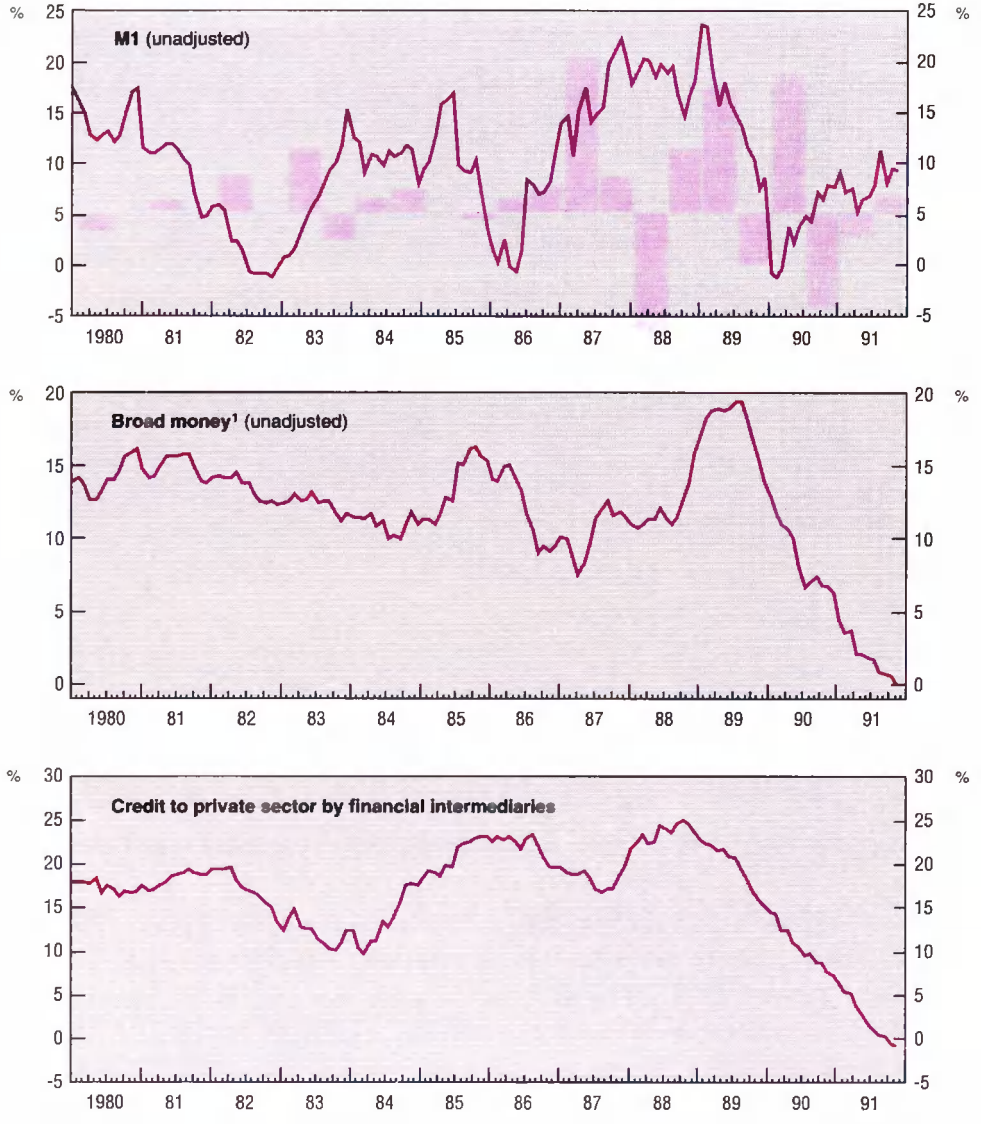
1. OECD calculations.

Source: Reserve Bank of Australia, *Bulletin,* and OECD estimates.

buyer of foreign exchange in both 1989/90 and, to a lesser extent, in 1990/91 (Diagram 14), although the scale of these interventions (to hold down the value of the Australian dollar) was considerably smaller than in 1987/88. Intervention to limit the rise in the currency was most intense in May and October 1990 and again in May 1991. The strength and stability of the Australian dollar during the last two years may have been partly attributable to Australia's high real interest rates, and in October 1990, to the rise in world oil prices linked to the Gulf crisis. The balance of pressures bearing on the Australian dollar shifted in December 1991 - January 1992, when the effective exchange rate fell by around 7 per cent. Prominent factors in the decline appear to have been a narrowing of interest rate differentials *vis-à-vis* some key currencies and market uncertainty concerning future policy. In the event, the Reserve Bank intervened over this period to steady the currency. Over the longer term, the Reserve Bank's goal is to balance its exchange-market purchases with its sales (principally to the Commonwealth Government).

Diagram 15. **MONEY AND CREDIT GROWTH**

Percentage change over twelve months earlier



1. M3 plus borrowings from private sector by non-bank financial institutions less the latter's holdings of currency and bank deposits.

Source: Reserve Bank of Australia and OECD, *Main Economic Indicators.*

Monetary aggregates

Growth in the money and credit aggregates was slow to respond to the tightening of monetary policy which started in early 1988, reflecting in part the influence of financial market deregulation on corporate borrowing. Broad money and credit growth continued to accelerate, reaching a peak of around 20 per cent per annum in late 1988 and mid-1989 (Diagram 15). But, as the growth of domestic demand slowed, credit expansion slowed at a greater rate reflecting the slowdown in demand and greater debt repayment by business. Indeed, by September 1991, year-on-year growth in broad money and total private sector credit had dropped to 0.8 per cent and 0.4 per cent respectively. By contrast, growth in the narrower monetary aggregates picked up sharply in 1990/91, partly because of a reaction to the tightening of arrangements for taxing interest at source and because confidence problems associated with some financial institutions led some individuals to hold more currency. However, growth in the narrower monetary aggregates has now also decelerated.

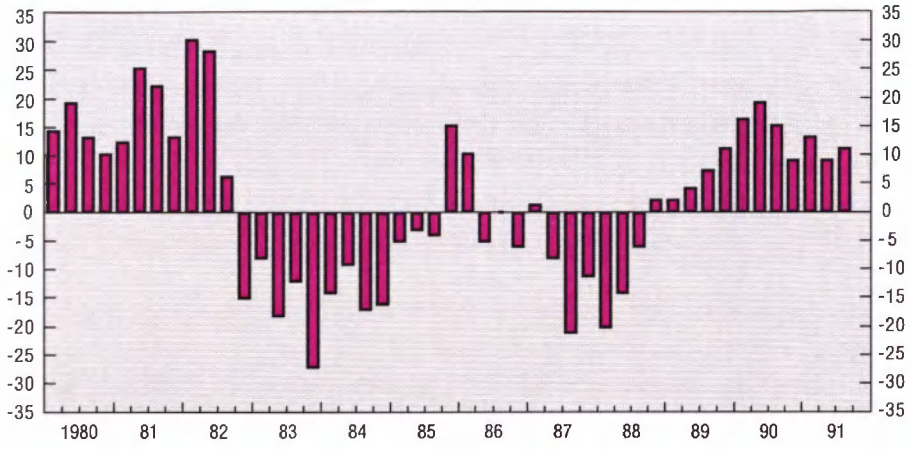
Financial market stress

As in many other OECD countries, corporate indebtedness and over-building in the commercial property sector, combined with a break in asset price inflation, imposed some strains on the financial system over the past two years. Non-performing loans of Australian banks (including their overseas operations) were roughly 5½ per cent of banks' total assets in June 1991, up from around 3 per cent a year earlier. A few non-bank financial institutions have failed and some banks, particularly state-owned and foreign banks, have required recapitalisation[13]. Nevertheless, the core of the financial system (the major authorised banks) remains sound, with BIS capital adequacy requirements continuing to be comfortably exceeded.

Concern has been raised in a number of countries that, in view of poor loan portfolios, lending institutions could drastically curtail lending, subjecting business to a "credit crunch". This has been less of an issue for the personal sector in Australia, and indeed lending for housing started to pick up towards mid-1991. While credit assessments have tightened during the past year, this tightening appears not to have gone further than in previous recessions; although credit growth has fallen more rapidly than would have been predicted on the basis of the relationship with activity observed in the recent past, much of this divergence

Diagram 16. **DIFFICULTY IN OBTAINING FINANCE**

CAI - Westpac survey of industrial trends[1]



1. Net balance reporting finance harder to obtain for the next 3-months. A positive number indicates finance is more difficult to obtain while a negative number indicates finance is easier to obtain.

Source: Confederation of Australian Industry.

can be explained by voluntary balance sheet adjustments underway in both the finance and non-finance sectors. The view that companies have adequate access to commercial credit is supported by the CAI-Westpac survey of manufacturers. This shows that, while credit has been less readily available than in 1987 and 1988, it has been less difficult to obtain credit than in the previous recession (Diagram 16).

Fiscal policy

Budget developments

The late 1980s saw substantial fiscal consolidation in Australia, as the net PSBR swung from 7.0 per cent of GDP in 1983/84, to a surplus of 1.6 per cent in 1988/89. This reflected, in large part, the turn around in the Commonwealth Budget from a deficit of 4.1 per cent of GDP to a surplus of 1.7 per cent. During that time Commonwealth Budget outlays were reduced by five percentage points to 24.4 per cent of GDP, while revenue increased by 0.8 per cent. The substantial

Table 7. **Commonwealth government budgetary developments**

Per cent of GDP

	1989/90	1990/91	1991/92
Outlays			
Final consumption expenditure	5.0	5.4	5.7
Gross investment	0.3	0.4	0.5
Personal benefit payments	8.4	9.5	10.3
Other	9.9	10.0	9.8
Total outlays	23.6	25.3	26.3
Revenue			
Personal income tax	13.5	13.2	13.0
Business income taxes	4.1	4.7	4.6
Indirect taxes	6.4	6.1	5.7
Other	1.7	1.9	1.9
Total revenue	25.8	25.8	25.1
Balance	2.2	0.5	–1.2
Balance (A$ million)	8 036	1 896	–4 732

Source: *Budget Statements 1991-92*, Budget Paper No. 1.

fiscal consolidation in the 1980s provided scope for the automatic stabilisors to operate fully in the recent downturn.

Largely reflecting the onset of the recession in 1990, the Commonwealth Government's budgetary position has deteriorated bringing an end to several years of significant surpluses. The surplus fell from 2.2 per cent of GDP in 1989/90 to 0.5 per cent in 1990/91. Official Treasury projections are for a deficit of 1.2 per cent of GDP in 1991/92[14], mainly due to rising outlays, especially on unemployment benefits. Weaker personal income taxes, company tax revenue and indirect taxes, will also contribute to the deterioration (Table 7). The projected drop in personal income tax receipts reflects tax cuts from 1 January 1991, rapidly falling wage inflation, and significant employment losses. Lower tariff rates and the detaxing of wholesale taxes on business inputs are expected to lower indirect tax revenues.

Official Treasury estimates are for net lending of state/local governments to widen to a deficit of 1.2 per cent of GDP in 1990/91 and 1.7 per cent in 1991/92 (Table 8). One reason for this budget deterioration is debt repayments to the Commonwealth Government (amounting to $1.1 billion, or 0.3 per cent of GDP

Table 8. **General government budgetary aggregates**

Per cent of GDP

	1989/90	1990/91	1991/92[1]
	Commonwealth budget		
Outlays	23.6	25.3	25.7
Revenue	25.8	25.8	24.5
Balance	2.2	0.5	–1.2
	State/local general government		
Outlays	16.2	16.9	n.a.
Revenue	15.4	15.7	n.a.
Balance	–0.8	–1.2	–1.7
	Total general government		
Outlays	32.2	34.6	n.a.
Revenue	33.6	34.0	n.a.
Balance	1.4	–0.7	–2.9

1. Preliminary Treasury estimates.
Source: *Budget Statements 1991-92*, Budget Paper No. 1.

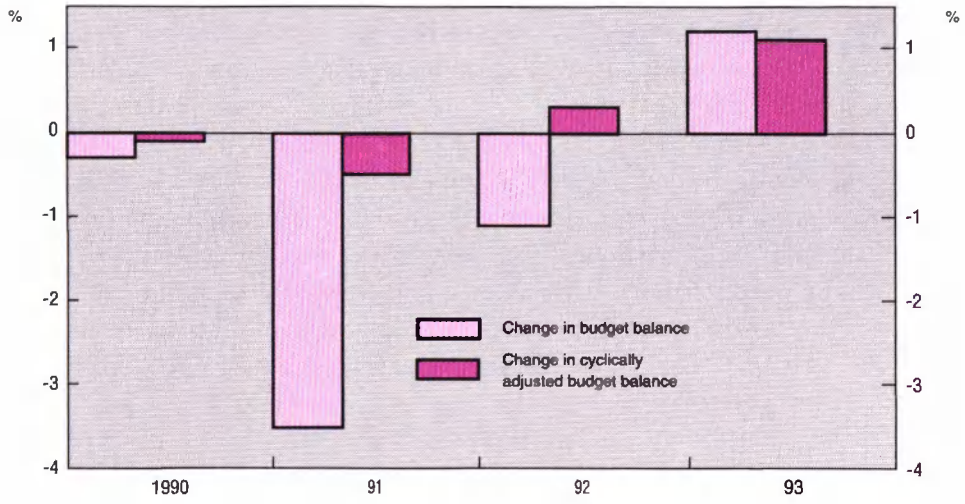
in 1990/91) to retire maturing Commonwealth securities issued on behalf of State Governments, as agreed to at the State Premiers' 1990 conference. These repayments also mean that the underlying rise in Commonwealth Government outlays shown in Table 7 is somewhat understated. Taking the Commonwealth and state/local government sectors together, the general government budget balance is officially projected to decline from a surplus of 1.4 per cent of GDP in 1989/90 to a deficit of 2.9 per cent of GDP in 1991/92[15].

The stance of fiscal policy

Most of the deterioration in the general government budgetary position since 1990 appears to reflect cyclical factors. The OECD estimates are that of the 3.5 per cent of GDP deterioration in the general government's budget balance projected for calendar 1991, roughly, 0.5 per cent is non-cyclical (Diagram 17). For the most part, this "discretionary" budget change reflects government capital transfers to bail out state-owned banks. A further increase in the general government budget deficit is projected for calendar 1992 (when additional bail-

Diagram 17. **THE STANCE OF FISCAL POLICY**

General government



Source: OECD, *National Accounts* and estimates.

out costs will appear in government accounts) followed by a reduction in 1993 (when bail-out costs drop out).

Government debt

The deterioration in Australia's fiscal position will alter the path of government debt. Following declines since 1986, gross general government debt[16] is projected to rise as a percentage of GDP from 13.5 per cent in 1990 to 18.5 per cent of GDP in 1993. Public debt will nonetheless remain quite low compared with levels in most other OECD countries.

Short-term economic prospects

Gauging the strength of the recovery

The September quarter 1991 national accounts indicate that non-farm activity has started to improve, with non-farm GDP increasing by 0.6 per cent (based

on the average measure of GDP) – the first rise since the December quarter 1990. However, the impact of drought conditions on the farm sector dampened overall economic activity, and total average GDP was unchanged from the June quarter. Positive contributions to growth came from private consumption and net exports. Investment in new housing also rose, although this was more than offset by reduced spending on renovations of existing dwellings. Factors lowering growth were destocking and further falls in business investment. Leading indicators suggest that non-farm economic activity will continue to rise through 1992, albeit at a modest pace. While surveys indicate that consumer confidence slipped late in 1991, it remains well above recession lows. In trend terms, current price retail trade has remained relatively stable after strong growth through mid-1991. New dwelling investment has consolidated after unsustainably strong growth in mid-1991 with new housing finance commitments around 13 per cent up on their trough of early 1991. The stock to sales ratio fell to a historically low level in the September quarter 1991 and may now have bottomed out. Business surveys report that firms expect better trading conditions over the next six to 12 months, although the reported improvement in trading conditions in the December quarter was less than expected. There are signs that the labour market is improving. After falling in the first half of 1991, trend employment growth has levelled out and rose slightly in December 1991. Job advertisement surveys also point to an end to deteriorating labour market conditions.

The economic outlook for the Australian economy over the coming two years is sketched out below. The projections embody information available at 28 January 1992 and are based on the following technical assumptions:

- growth of Australian export markets is projected to remain in the 6 per cent range in 1992 and 1993;
- oil prices average around US$ 18 per barrel in the first half of 1992 and remain constant in real terms thereafter;
- nominal exchange rates remain unchanged from their levels of 28 January 1992, reflecting a drop of around 7 per cent in the effective exchange rate since early December 1991;
- fiscal policy follows official estimates to July 1992, and remains broadly neutral in cyclically-adjusted terms thereafter; and
- monetary policy remains firm.

The OECD expects that non-farm real output began to grow moderately in the second half of 1991, as consumer confidence revived and nominal interest rates declined. However, the recovery in private consumption may be muted by the impact of drought in New South Wales and Queensland on the already severe squeeze on farm incomes. In addition, the household savings rate is already at a record low and, given high rates of unemployment, a rapid recovery in consumer durables and housing may be delayed. Given the relatively poor balance sheet positions of some firms, improved cash-flow is unlikely to be reflected in higher investment before late 1992. A recovery in the commercial property market is likely to lag even further behind. The real foreign balance is projected to make a progressively smaller contribution to real GDP growth as the economy picks up even though export growth is expected to remain high. On the assumption of normal agricultural conditions, real GDP growth is projected to be 2 per cent in 1992 and slightly more than 3 per cent in 1993 (Table 9).

Against this background, unemployment, already over 10 per cent, is projected to remain at over 10 per cent over the coming two years, albeit starting to fall in 1993. The October 1991 National Wage Decision to move to a decentralised, single unit, enterprise-based wage bargaining system provides a major opportunity to enhance Australia's productivity performance and reduce unemployment, while maintaining low wage inflation. The OECD's forecasts are for the private consumption and the non-farm GDP deflators to touch their lowest points in the current cycle in 1991 (at annual rates of around 3.0 per cent). Thereafter, deferred wage increases from the April 1991 National Wage decision and higher superannuation levies in mid-1992 will boost the growth of employee compensation. In addition, the December 1991 - January 1992 exchange rate depreciation will also impact adversely on inflation. Measured inflation might reach around 4 per cent in 1993 – slightly above OECD area inflation. Such a medium-term inflation outlook assumes that monetary policy is oriented towards countering any spillover effects from the recent drop in the exchange rate.

The trade surplus is projected to narrow only slightly as the economy picks up. This projection assumes weak imports of capital goods until late 1992 and a continuation of Australia's recent good export performance. Strong growth in tourism receipts and the effects of falling world interest rates on investment

Table 9. **Short-term prospects**

Percentage changes

	Percentage share of GDP 1989 Current prices	1991	1992	1993	1990/91	1991/92	1992/93
		Calendar year			Fiscal year		
A. Demand and output at constant 1984/85 prices							
Consumption							
Private	57.7	0.9	1.9	2.8	1.1	1.4	2.4
Public	16.5	2.5	2.1	2.0	3.9	1.8	2.0
Gross fixed investment	25.0	–10.5	1.0	3.7	–8.7	–5.4	2.8
of which:							
Government	2.3	1.8	3.1	3.0	5.2	2.0	3.0
Private							
Total	22.7	–12.1	0.7	3.8	–10.3	–6.4	2.8
Dwellings[1]	7.0	–7.7	3.2	6.4	–10.2	–2.1	5.4
Other construction	4.6	–17.9	–6.2	1.5	–14.6	–15.0	–1.0
Equipment	7.9	–10.3	1.4	5.0	–10.1	–4.6	3.5
Public enterprises	3.2	–15.5	2.6	–0.9	–6.1	–7.0	1.2
Final domestic demand	99.2	–1.5	1.7	2.9	–0.8	0.0	2.5
Change in stock building[2]	1.5	–0.5	0.3	0.4	–1.4	–0.1	0.6
Total domestic demand	100.6	–2.0	2.0	3.3	–2.2	–0.1	3.1
Exports of goods and services	15.9	13.1	7.3	6.3	12.8	11.3	5.6
Imports of goods and services	18.6	–1.7	5.9	6.6	–3.8	3.5	6.1
Change in foreign balance[2]	–2.7	2.8	0.3	0.0	3.1	1.6	0.0
Statistical discrepancy[2]	2.1	–2.6	–0.4	0.0	–2.0	–1.3	0.0
GDP[2]	100.0	–1.8	2.0	3.2	–1.1	0.1	3.0
B. Other items							
Private consumption deflator		3.5	3.7	3.9	5.1	3.0	4.0
Employment		–2.0	–0.5	1.3	–0.4	–1.8	0.7
Unemployment rate (per cent)		9.6	10.6	10.3	8.3	10.4	10.3
Current balance (A$ billion)		–13.2	–14.4	–16.1	–15.5	–12.9	–15.5
Current balance[4]		–3.5	–3.6	–3.8	–4.1	–3.4	–3.8

1. Including real estate transfer expenses.
2. Contributions to growth.
3. Including statistical discrepancy.
4. Per cent of GDP.

Source: OECD Secretariat.

income debits should offset the shrinking of the trade surplus. All in all, the current account deficit is projected to remain at roughly 3¾ per cent of GDP over the coming two years.

The risks surrounding this forecast appear evenly balanced. The major uncertainty concerns the timing of the upturn and how quickly it leads to rising employment. It is difficult to assess private sector behaviour in the face of rapid disinflation and rising unemployment, the more so as the wage fixing system will be going through uncharted territory. In the short run, there is a possibility that the consolidation of weak corporate balance sheets could be prolonged, thereby restraining the strength of the recovery. A subdued recovery will, however, assist in maintaining low inflation and further reducing external imbalances – as also will the prudent adjustment of policy so as not to add unduly to domestic demand growth at the same time that underlying cyclical forces are bringing about recovery.

II. Inflation in a medium-term context

Australia's inflation performance in the 1960s was similar to that of the United States, Germany and Canada – and indeed somewhat better than the OECD average. In the 1970s, following the pronounced 1974-75 world commodity price cycle, it was worse and more volatile than the OECD average. For most of the last decade it remained above the average, but converged as the decade progressed, finally falling below it over the past year (Table 10).

Table 10. **Inflation performance since the 1960s**[1]

		1960-69	1970-79	1980-90	1991[2]
Australia	Average	2.5	9.8	8.2	1.5
	Standard deviation	1.4	4.1	2.2	2.0
United States	Average	2.5	7.3	5.3	3.0
	Standard deviation	1.5	2.7	3.4	1.3
Japan	Average	5.6	8.9	2.4	2.8
	Standard deviation	1.8	6.1	2.3	0.4
Germany	Average	2.5	5.0	2.8	3.9
	Standard deviation	0.9	1.5	2.1	0.6
Canada	Average	2.5	7.5	6.2	4.1
	Standard deviation	1.3	2.9	3.1	1.0
New Zealand	Average	3.3	12.0	10.8	1.0
	Standard deviation	1.7	3.7	5.2	1.6
OECD[3]	Average	3.3	8.7	5.7	3.6
	Standard deviation	0.8	2.8	3.0	0.8

1. Consumer price index.
2. Q4 1990 to Q4 1991.
3. OECD excluding Turkey.
Source: OECD Secretariat.

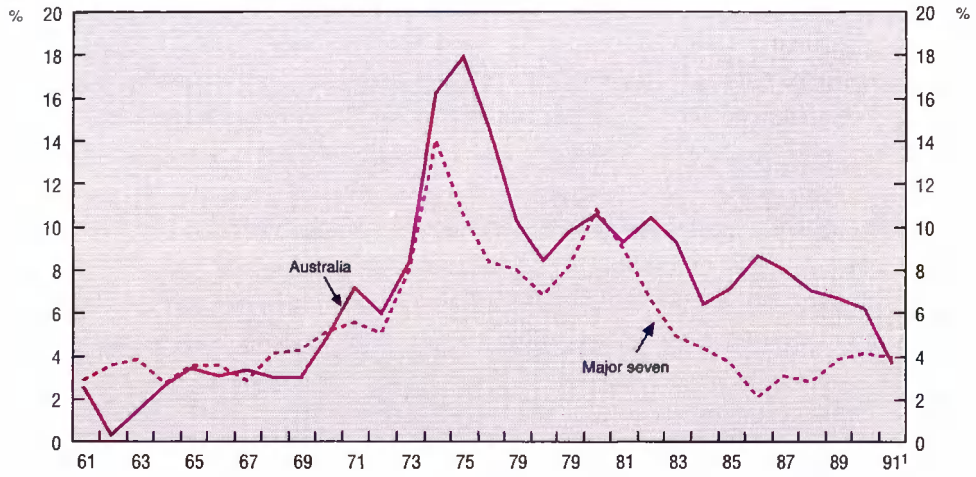
Monetary policy settings were the primary influence on Australia's inflation performance during the 1980s, but there were also a number of other factors including features of the wage and price formation process, large swings in the terms of trade and related currency movements. Some of the structural impediments to reducing inflation were canvassed in the 1989-90 OECD *Survey of Australia,* in particular certain aspects of the price and wage setting arrangements. For much of the 1970s and early 1980s, Australia's wage costs were increasing more strongly than in the major industrialised countries reflecting two major wage explosions and indexation arrangements under the centralised wage determination process. From 1983, the Accord arrangements, which were an integral part of the Government's anti-inflation policies, sought to resolve competing income claims at lower levels of inflation than would otherwise have been possible in the context of promoting employment growth. As noted in the 1989-90 *Survey,* market structures and practices have not been noticeably conducive to competition in Australia. In such an environment, cost increases may have been quickly passed into prices. Moreover, the pass-through of lower import prices from exchange rate changes may at times have been modest.

Against this background, current moves to increase the flexibility of wage-setting arrangements and to achieve greater domestic and foreign competition in product markets will be of major significance in facilitating a low inflation performance in Australia. This will be achieved both directly and also indirectly via the moderating impact of greater competition on wage behaviour and improved productivity performance. The substantial progress to date, and in prospect, for labour-market and microeconomic reform more generally, has had – and will have – an important bearing on Australia's inflation performance. These reform measures are discussed in Chapter III.

Australia's inflation record

Australia's inflation performance in the 1980s did not improve to the same degree as in the large OECD countries and has only, over the past year, matched their record (Diagram 18). Most OECD countries adopted firm anti-inflationary monetary policies in the early 1980s and achieved substantial and sustained reductions in inflation. Australia was slower to come to grips with the legacy of

Diagram 18. **INFLATION IN AUSTRALIA AND IN THE SEVEN MAJOR OECD COUNTRIES**
Private consumption deflators



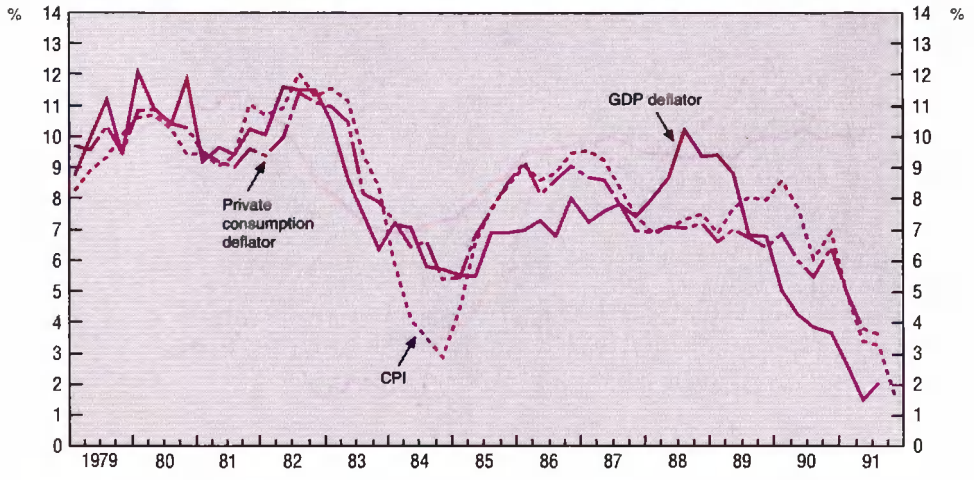
1. Estimates.
Source: OECD, *National Accounts.*

high inflation of the 1970s, but by 1984 the rate of increase in the consumer price index (CPI) had fallen to a little above 5 per cent (the lowest rate for a decade and just above the OECD average). After 1984, Australia's inflation rate diverged from the OECD average[17]. It accelerated to around 9 per cent in 1986 following a 35 per cent depreciation of the effective exchange rate in 1985 and 1986, which was due mainly to a fall in the terms of trade of around 15 per cent and occurred against the background of the underlying weak external balance carried over from the late 1970s. Conversely, most other OECD countries benefited from a terms of trade improvement. Subsequent to 1986, most measures of inflation generally trended down (Diagram 19).

Despite the strong rise in demand in the late 1980s, inflation did not increase, principally reflecting the operation of the Accord and exchange rate appreciation. In the early 1990s, inflation fell sharply as the recession set in. Inflation across a range of measures has now fallen below the OECD average, to

Diagram 19. **INDICATORS OF INFLATION**

Percentage change over the same quarter of previous year



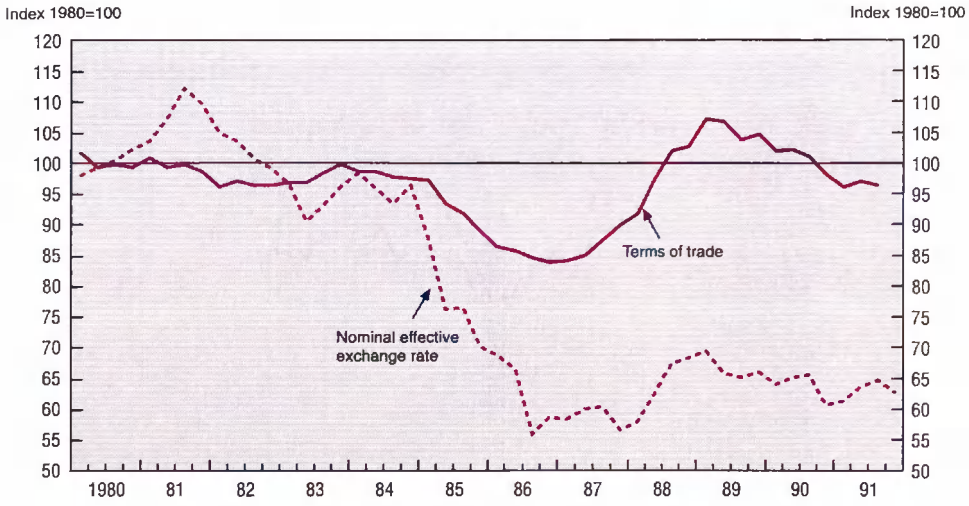
Source: OECD Secretariat.

levels not seen for a generation; the cost of this achievement has been substantial. The question is why progress in reducing inflation was slower in the 1980s than in other OECD countries. Could a faster adjustment path have been feasible? What is the best way to lock in low inflation now that it has been achieved?

Monetary policy

Monetary policy has gone through various episodes over the last decade. It contributed to the rapid expansion of demand following the 1982-83 recession. Even so, inflation fell in 1984. In the two years to 1986, the effective exchange rate fell by 35 per cent. Monetary policy was tightened very substantially in order to attenuate the fall in the exchange rate and to limit the inevitable inflationary effects of the depreciation. When the terms of trade began to improve late in 1986, the exchange rate stabilised and then rose (Diagram 20). The authorities

Diagram 20. **THE TERMS OF TRADE AND THE EXCHANGE RATE**



Source: OECD Secretariat.

lowered nominal interest rates from the high levels which had prevailed during 1985 and 1986.

This monetary policy easing occurred in the face of a flat domestic economy in 1986, the then weak outlook, a rising exchange rate and a still serious external deficit problem. There was also a substantial tightening in fiscal policy at this time which was part of a deliberate rebalancing of the macroeconomic policy mix to provide scope for the easing in monetary policy as well as to contribute to national savings in the medium term. By the October 1987 share market crash, cash rates had fallen to about 14 per cent (*ex post* real rates of 6 to 7 per cent) and the yield curve was positively sloped. However, by the middle part of 1988, it had become clear that the stock market crash had not had a significant contractionary effect on the real economy. Demand pressures had not moderated with a tightening of fiscal policy. In addition, the improvement in the terms of trade imparted a positive shock of around 4 per cent to GDP between the end of 1986 and the beginning of 1989. A further boost to demand came from asset price

speculation, underpinned by a range of factors including unrealistic expectations and a higher profit share as well as the interaction of inflation with the tax system. Credit standards were often lowered as institutions competed for market share in the newly deregulated financial sector.

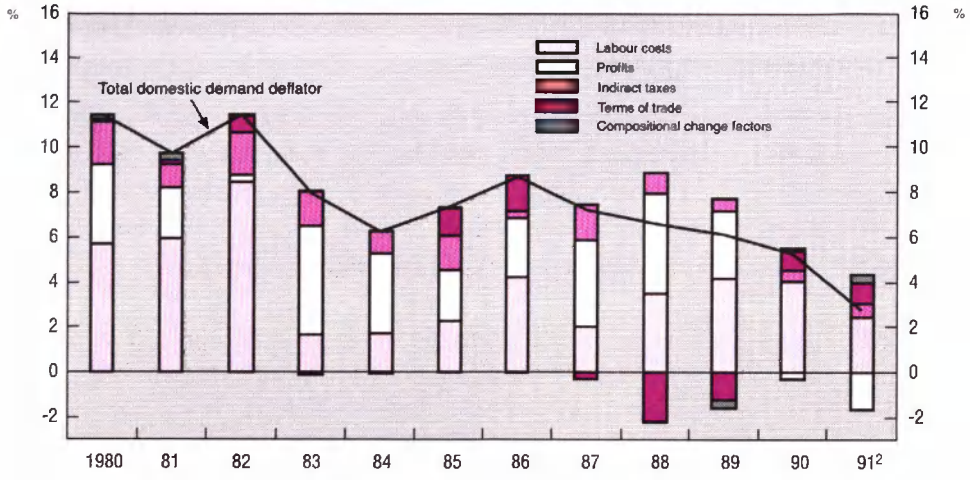
Australia was among the first countries to tighten monetary policy after the stock market shake-out. Between April 1988 and the middle of 1989, the authorities raised cash rates by 7 percentage points to 18 per cent. At least initially, this was not enough to slow excessive growth of overall demand. It was not until the second half of 1989 that the combination of high interest rates and the unwinding of the asset inflation cycle brought this process to an end. Beginning in January 1990, interest rates were lowered. Both the timing of these reductions and the accompanying announcements emphasised the high priority which the authorities were giving to inflation reduction.

Monetary policy generally exerted a restraining influence on inflation in the 1980s – especially in the last part of the decade – as shown by high short-term real interest rates and the generally inverted yield curve. As a result there was a gradual closing of the gap between Australia and OECD inflation from about 1986. However inflation fell rather slowly and there were periods when monetary policy was not focused sufficiently on inflation. As a result, inflationary expectations were slow to adjust, which partly explains the high real interest rates.

Monetary policy was complicated at times by its need to fit in with other policy objectives. It aimed at balancing the ongoing objectives of inflation reduction against that of ensuring reasonable growth, as well as dealing with major external shocks to the economy. There was a tendency, particularly in the early and mid-1980s, for monetary policy to take a more eclectic approach, exemplified by the short-lived (1985-87) experience with a ''check-list'' approach[18].

One particular example of the competing demands on monetary policy in the mid-1980s was when balance-of-payments developments called for the acceptance of some fall in the exchange rate. This would normally be reflected in the price level and, hence, in a temporary rise in the inflation rate. However, as referred to earlier in this Chapter, when upward pressure re-emerged on the exchange rate in 1987, the need to retain competitiveness gains to reduce the external deficit played a large role in determining the stance of monetary policy. With the benefit of hindsight, monetary policy was eased too much. Also, at this

Diagram 21. **CONTRIBUTIONS TO PRICE CHANGES**[1]



1. See Technical Annex for the decomposition of the total domestic demand deflator.
2. Estimates.

Source: OECD, *National Accounts* and estimates.

time, the scope for monetary policy easing in the context of fiscal policy tightening was probably overestimated.

Another example of competing demands was the overriding need to address the factor share problem and increase profitability. This necessarily implied a period during which prices rose faster than wages, so that real unit labour costs fell (Diagram 21). Policy focused on the need to achieve this real adjustment, and its completion resulted in improved employment and investment performance. However, had a more medium-term approach to monetary policy been taken, it might have been possible to target even lower inflation than implied by the Accord, but the shift to profits might have been less successful.

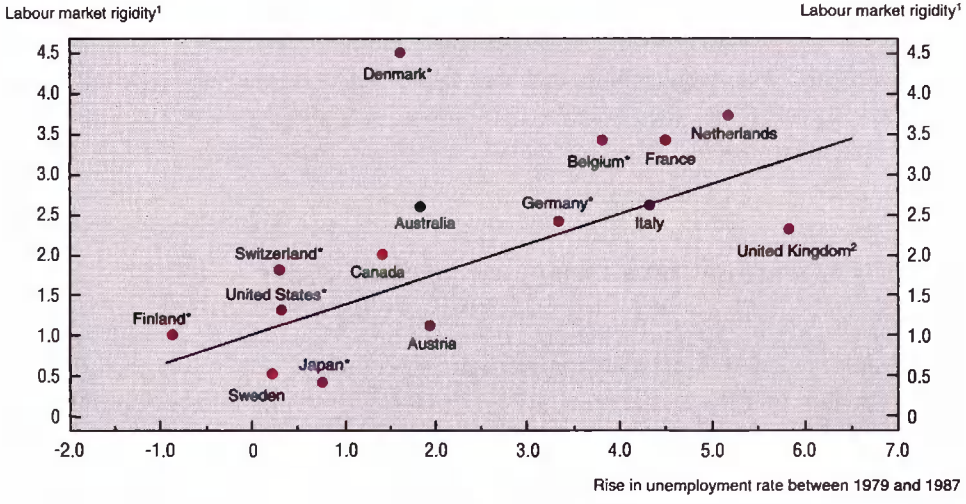
There were also difficulties in setting monetary policy arising from misreadings of the economic outlook. The strength of domestic demand – and the related very strong rebound in the terms of trade – was underestimated in the upswing of the recent cycle. Subsequently, as in other countries, the effects of the asset price

unwinding and other factors on the downturn were underestimated. The operation of monetary policy was complicated in these circumstances as elsewhere.

The cost of disinflation

Lowering inflation normally involves holding the growth of output and employment below that of potential for a period of time sufficient to bring both inflation and inflation expectations down. Whether the benefits from achieving low inflation offset the costs is a subject of continuing debate, although the balance of opinion in most OECD countries has shifted in favour of low inflation as it has in Australia. An approximation of the costs of achieving disinflation in Australia can be obtained through simulations using macroeconomic models of

Diagram 22. **LABOUR MARKET RIGIDITY AND UNEMPLOYMENT**



1. Labour market rigidity is defined as the semi-elasticity of nominal wages with respect to the rate of unemployment; wages are assumed to be homothetic in prices in the long run. It is derived from estimates of Phillips-curve type wage equations. For countries marked with an*, the wage response includes the indirect unemployment effects from changes in cyclical labour productivity.
2. Estimates based on the equation which incorporates the hypothesis of hysteresis in the unemployment rate.

Source: OECD Secretariat.

the economy. Simulations based on a reduction in money growth sufficient to achieve a 1 percentage point reduction in the trend rate of inflation in three macroeconomic models have found short-run cumulative GDP losses of around 2 per cent[19]. On the basis of these results, according to the Economic Planning Advisory Council (EPAC), roughly one-half of the drop in output in the current recession can be explained by the adjustment of the economy to an underlying inflation rate of 4 per cent[20].

A good way of comparing the costs of disinflation in Australia relative to other countries is to rank comparable empirical estimates of wage rigidity. OECD estimates of these coefficients are based on the estimated responsiveness of nominal wage increases to changes in unemployment[21]. The less responsive are wage increases to higher unemployment, the more prolonged will be high unemployment following a tightening of monetary policy. OECD estimates show that wage rigidity in Australia is similar to that in many European countries, but higher than in North America – and much higher than in Japan (Diagram 22). Some European countries have considerably more wage rigidity than Australia. OECD countries which have experienced the largest increases in unemployment during the disinflation of the 1980s were typically those with a high degree of wage rigidity. The costs of disinflation in Australia in the recent recession appear, on balance, to have been similar to those experienced in many European countries. Low inflation has been achieved at the cost of unemployment rates of more than 10 per cent.

Towards a medium-term focus for monetary policy

There is a growing acceptance in most countries that monetary policy should focus primarily on the reduction of inflation. Low inflation is desirable for both efficiency and equity reasons. It is generally considered that monetary policy has the best chance of achieving this objective on a sustainable basis. The effectiveness of monetary policy in this regard will be seriously weakened if it has to pursue other policy goals. If monetary policy is focused primarily on medium-term inflation control, the scope to use it to deal with short-term objectives is greatly reduced. In practice, however, countries frequently face tension between long-term objectives and short-term requirements.

Australia has recently made much progress in reducing inflation following the monetary policy tightening in the late 1980s. In the event, the declines in both activity and inflation have been large. It has also been a period when the authorities have placed more explicit recognition on the role of monetary policy in reducing inflation. In the past, there may have been occasions when the authorities' intentions were not entirely clear and this may have contributed to a slower reduction in inflation expectations. Especially given high international capital mobility, conflicting statements concerning medium-term inflation objectives can add to financial market uncertainty and detract from the effectiveness of monetary policy.

Even with transparent and realistic policy objectives, the task of enhancing credibility remains. Policy credibility can ultimately only be achieved by maintaining low inflation. While there may be public support for low inflation in the medium term, there is similarly a desire for high economic growth in the short run. If governments only respond to the latter, low inflation will be jeopardised and economic performance over the medium-term compromised[22]. One way to meet this issue may be to grant the central bank greater independence to pursue a medium-term inflation mandate (as for decades in Germany, since 1989 in New Zealand and proposed in Canada). But, irrespective of the degree of central bank independence, there needs to be broad public support for the policy objectives and the possible costs that might be entailed. There is also no guarantee that greater independence for pursuit of inflation objectives in this particular way will improve either credibility or performance. The authorities will still have to deal with operational difficulties including the problems arising from forecasting the economy, interpreting financial relationships and gauging inflation expectations.

The process of gaining credibility may be assisted by various devices such as tying the exchange rate to the currency of a low inflation country or announcing and subsequently meeting policy targets. Such targets could include monetary aggregates, nominal GDP or inflation itself. The link between monetary aggregates and nominal income (and inflation) has become increasingly blurred due to financial market deregulation and portfolio shifts. This leaves the choice between the exchange rate and explicit inflation goals as operational intermediate targets.

Experience within the European Monetary System (EMS) suggests that countries with a poor inflation record can improve their performance by linking their currencies to a hard currency (the Deutschemark), because this constrains

them to follow anti-inflation policies. Whether macroeconomic policy (and monetary policy in particular) is consistent with the nation's medium-term inflation objective then becomes immediately evident. As confidence in the exchange rate parity is built up, interest rates in EMS countries have tended to converge on German rates. Indeed, the speed with which interest rate differentials between the United Kingdom and Germany have closed over the past year can be taken as an indication of enhanced U.K. monetary policy credibility. But, the price for borrowing the Bundesbank's monetary policy credibility is that EMS countries have little scope to adjust their exchange rates to real shocks.

Linking the Australian dollar to a hard currency or basket of currencies is probably not a good option. Australia is subject to large fluctuations in commodity prices. These do not affect similarly the economies of any major hard currencies to which the Australian dollar conceivably could be linked. More fundamentally, given persisting labour and product market rigidities, adjustment to these shocks through domestic prices (rather than via exchange rate changes) could prove costly in terms of output and employment losses and volatile inflation. The only other small or medium-sized OECD countries which have independently floating currencies are Canada and New Zealand. They are establishing official inflation objectives and making their central banks accountable for achieving them. However, these are very recent initiatives and it is too soon to assess their experience.

III. The need for accelerated microeconomic reform

It has long been recognised in OECD countries that microeconomic reform can reduce the adjustment costs of achieving low inflation and structural change, as well as raise potential output. With per capita GDP in Australia having fallen to the bottom third of the OECD league – after having been near the top until the early 1960s – the need for microeconomic reform has been evident for some time (Table 11). The Australian Government started reform in the early 1970s with substantial reductions in the high levels of border protection then in place. Significant progress has been made in deregulation of domestic aviation, introducing competition into telecommunications, enhancing efficiency in transport

Table 11. **GDP per head**
Current PPPs, OECD = 100

	1970	1975	1980	1985	1988	1990
Australia	101	102	98	98	95	94
United Kingdom	94	93	90	91	94	92
United States	136	131	129	130	129	126
Japan	81	85	90	96	98	104
Germany	108	107	111	109	106	108
France	102	105	106	103	101	103
Italy	87	87	95	93	94	94
Spain	66	73	67	64	67	69

Source: OECD, *National Accounts*, 1992.

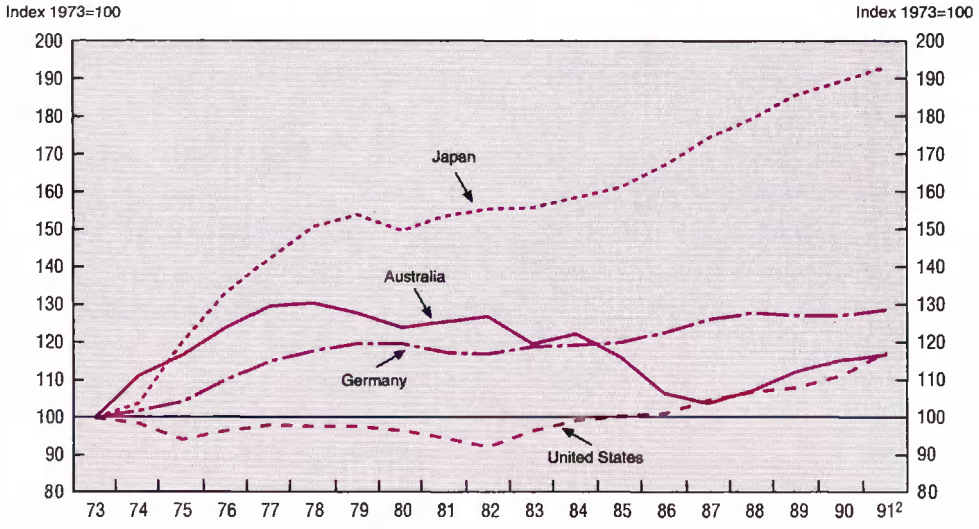
(shipping, rail and road), liberalising foreign investment, and privatising or corporatising government business enterprises, as well as a start in rationalising State and Commonwealth Government functions. Notwithstanding these initiatives and further actions in train in many areas, much still remains to be done to lift underlying productivity performance.

The productivity record

Growth in Australian labour and total factor productivity (TFP) has been slow. Between 1982/83 and 1990/91 hourly labour productivity for the whole economy grew at an annual rate of 0.7 per cent. Between 1985/86 and 1990/91, labour productivity on a comparable basis was approximately unchanged. Even after allowing for compositional shifts to sectors where labour productivity growth is assumed to be zero, the growth of productivity has slowed[23]. Most of this recent slowing reflected the rapid growth of employment (the offset of real wage moderation and the falling relative price of labour in the 1980s) and the consequent dilution of the capital stock (Diagram 23, Table 12). Conceptually the most appropriate measure of productivity is total factor productivity (TFP). Estimates by EPAC suggest that notwithstanding major gains in Government Business Enterprises (GBEs), TFP in the private non-farm sector grew by only 0.3 per cent per year in the five years to June 1990 (labour productivity grew by 0.5 per cent on average, the difference being attributable to increasing capital inputs)[24]. OECD estimates for the business sector give equally modest results. High investment levels in the late 1980s appear, so far, to have had little measurable effect on trend productivity. The benefits of this investment may become more evident as capacity utilisation increases with the recovery in economic activity. However, the boost to productivity may be limited, to some extent, by the large share of investment that was oriented towards commercial property development, rather than to the expansion and rationalisation of physical capacity.

Although inter-country comparisons of productivity are notoriously difficult to make owing to differences in measurement conventions, available data suggest that while productivity levels in the Australian agricultural and mining sectors are substantially above the OECD average, those in other sectors are well below the OECD average. In particular, productivity levels in Government Business

Diagram 23. **RELATIVE PRICE OF LABOUR**[1]



1. Index of compensation of employees in the private sector divided by an index of user cost of capital.
2. Estimates.

Source: OECD Secretariat.

Enterprises would appear to be roughly one-half the OECD average. For the manufacturing sector, the limited number of industry case studies available suggest that levels of output per person in Australia are lower than in key OECD countries[25]. According to OECD data, productivity levels have often been less than one-half those of Australia's trading partners in the ports, railroads and electricity generation. Notwithstanding better performance in recent years, labour productivity in public utilities has been estimated by the OECD Secretariat at one-half the OECD average. Australian estimates suggest that labour productivity in electricity generation could be improved by 25 per cent by reduced levels of reserve capacity and reduced over-manning. Labour productivity in railroads is estimated at less than one-half that in the United States and Canada. Qantas ranked 17th in terms of productivity compared to major international airlines, and a 1990 study suggests that Telecom had the lowest labour productivity of the nine OECD countries examined[26]. OECD data for business sector labour produc-

Table 12. **Factors affecting aggregate supply**

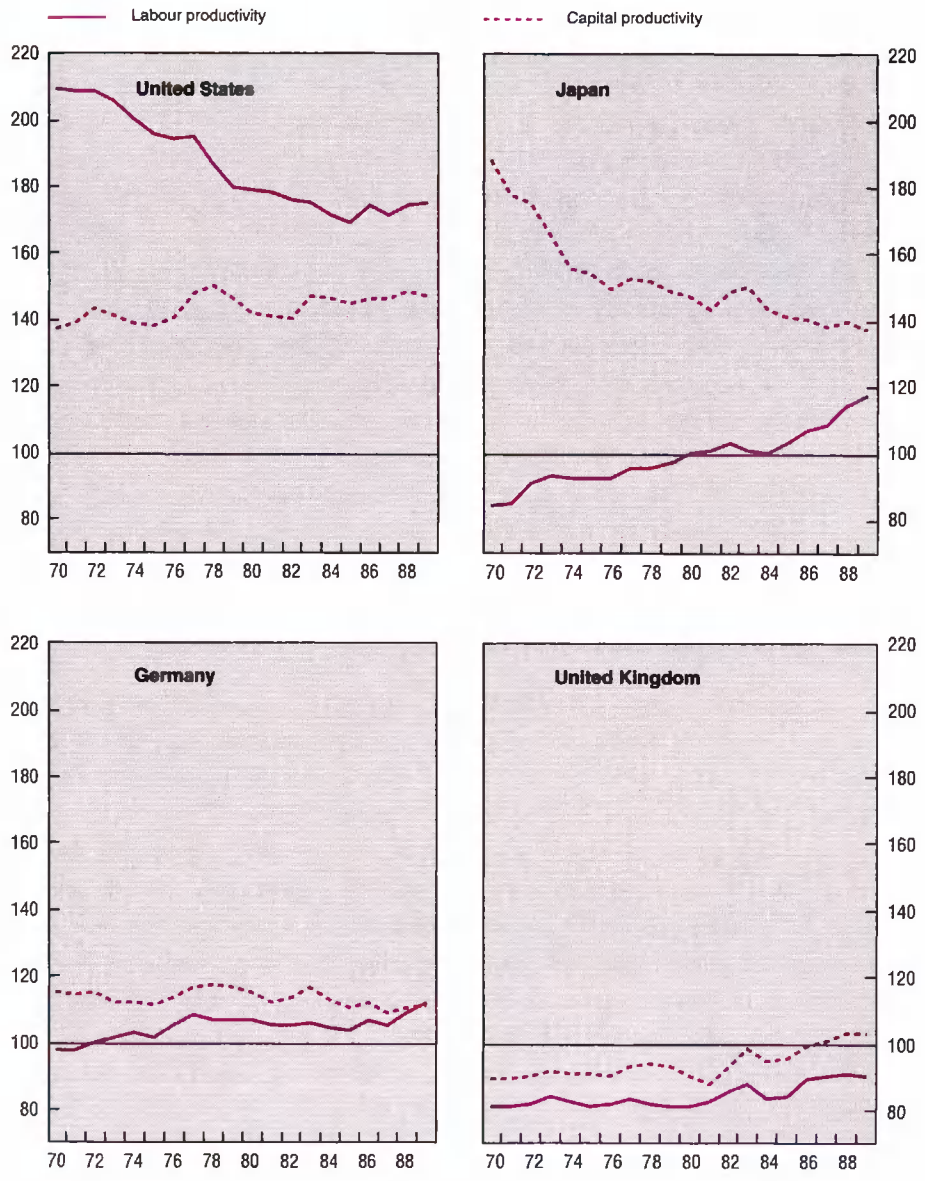
	1970-79	1979-85	1985-90
Labour force growth[1]			
Australia	1.8	1.9	3.0
United Kingdom	0.5	0.7	0.5
Germany	0.1	0.8	1.1
OECD	1.4	1.2	1.3
Investment rates in the business sector[2]			
Australia	18.7	20.1	20.6
United Kingdom	16.1	16.0	18.0
Germany	15.2	14.7	16.0
OECD	16.0	16.0	16.9
TFP growth in the business sector[1]			
Australia	0.7	0.9	–0.2
United Kingdom	1.4	1.5	1.7
Germany	1.9	0.4	1.3
OECD	1.1	0.8	1.0
Labour productivity growth in the business sector[1]			
Australia	2.4	1.8	–0.1
United Kingdom	2.4	2.5	1.7
Germany	3.3	1.3	1.8
OECD	2.1	1.5	1.5
Growth of the business capital stock[1]			
Australia	4.4	4.0	3.9
United Kingdom	3.1	2.1	2.4
Germany	4.1	2.8	3.1
OECD	4.8	3.6	3.5
Rates of return on business capital[2]			
Australia	12.4	10.7	12.4
United Kingdom	9.8	9.4	9.8
Germany	13.9	12.0	13.7
OECD	15.5	13.8	16.0

Note: OECD average excludes New Zealand, Turkey, Portugal and Luxembourg.
1. Average annual percentage changes between indicated years.
2. Average of recorded rates for periods 1970-79, 1980-85 and 1986-90.
Source: OECD estimates.

tivity levels for the late 1980s support this view (Diagram 24). Labour productivity in business appears to have been considerably below that in the United States (where it is 70 per cent higher), Japan (18 per cent higher) and Germany (15 per cent higher). Productivity is still above U.K. levels, but the advantage has

Diagram 24. **COMPARISON OF PRODUCTIVITY LEVELS**

Business sector, Australia=100



Source: OECD Secretariat.

narrowed steadily in the 1980s. Capital productivity, though more difficult to measure, shows much the same pattern.

The combination of low productivity levels and low productivity growth does not fit well with the so-called "catch-up" hypothesis, which postulates that productivity *growth* is correlated with a country's starting level *vis-à-vis* the technological frontier, typically in the manufacturing sector[27]. This model has been applicable to a number of countries, notably the dynamic Asian economies. This indicates that conditions in Australia have not been conducive to exploiting the technological gap *vis-à-vis* other advanced industrial countries. One reason could be Australia's comparative advantage in mining and agriculture where Australia is probably already close to the technological frontier. Another reason could be deficiencies in certain aspects of the skill and education levels of the work force and poor business research and development levels. A more general reason could be the fact that distortions in Australian labour and product markets were severe in the early 1980s. In this respect the experience of the United Kingdom could be instructive. The United Kingdom which was in a similar position throughout most of the 1960s and 1970s, reversed the trend in the 1980s under the impetus of widespread microeconomic reform[28].

Potential gains from structural reforms

While there has been considerable progress in microeconomic reform in recent years, Industry Commission (IC) estimates suggest that the Australian economy has the potential to realise "huge" efficiency gains and major increases in national welfare by accelerating microeconomic reform. The IC's estimates (1989) were for gains of some A$ 16 billion, covering identified structural reforms in transport (60 per cent of the total i.e. more than double those of abolishing all border protection), communications, electricity supply and reductions in manufacturing and agricultural assistance. If the long-run gains of reform in the provision of water services and contracting out of part of public sector activity (e.g. catering, maintenance and capital works) and reform of the railroads are added, the figure rises to a permanent long-run increase in GDP of A$22 billion (some 6½ per cent of 1989 GDP) and 53 000 jobs.

These estimated gains are large. But what is striking about them is that they are probably at the low end of the range. They do not include potential gains from improved core public sector efficiency (e.g. in the provision of health,

education, or construction services), nor do they include potential allocative efficiency gains from a more neutral tax structure. Furthermore, although the estimates allow for limited productivity gains from improved labour practices, *no* allowance is made for general labour market reform, or for the ''dynamic'' gains from raising the growth of potential output. The transparency of the IC's estimates may put Australia's microeconomic record in an overly poor light, because few OECD countries make such comprehensive assessments. Nonetheless, the implications of potentially huge efficiency gains from faster reform are in no way undermined. There is a strong case to accelerate structural reform in Australia.

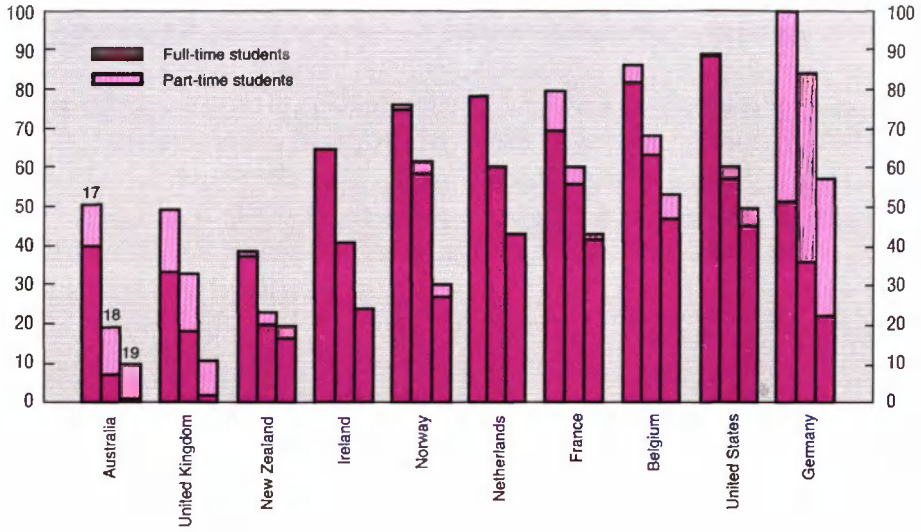
Labour market reform

Quality of the labour force

A country's long-term economic performance is heavily dependent on the skill levels of its work force. Australia has made major strides over the past decade in raising basic and vocational education standards. The retention rate of high school students staying on to year 12, the final year of high school, has risen from 41 per cent in 1983 to 64 per cent in 1990; and preliminary indications suggest that the rate exceeded 70 per cent in 1991. But much remains to be done. One relevant indicator between countries is the participation rate in education for seventeen to nineteen year olds (Diagram 25); schooling is compulsory in Australia between six and fifteen years of age (sixteen in Tasmania). Cross-country data show that although participation rates in education for seventeen year olds are higher than in the United Kingdom and New Zealand, the figures for eighteen and nineteen year olds drop off sharply and are lower than in these two countries. In general, Australia appears to lag behind comparable estimates for the United States and Europe, although this may also partly reflect the fact that in Australia young persons have historically undertaken training outside of school[29].

Another factor influencing longer-term economic performance is the adaptability and effectiveness of management. Higher general educational attainment levels and a competitive environment may be conducive to improving management's ability to adapt to a dynamic world economy and the diffusion of

Diagram 25. **PARTICIPATION RATES IN EDUCATION, 1987**
17 to 19 year olds, per cent



Source: OECD, *Education in OECD countries*, 1989.

industrial innovation. In the past, a high degree of trade protection and rigid work practices may have sheltered outdated management practices and limited the diffusion of innovation in manufacturing, as illustrated in Australia's weak revealed comparative advantage in intermediate and high R&D intensive industries[30]. In 1988, R&D expenditure accounted for 1.23 per cent of GDP (less than half the level in the United States and Japan), of which 41 per cent was financed by industry.

To address some of these issues, the Commonwealth Government launched a wide ranging programme to improve vocational education and training in 1989. Measures included a training guarantee levy, introduced in July 1990 to improve industry's training efforts (which was favourably received in terms of management attitudes and training outlays[31]); greater support for on-the-job training, entry level training and retraining arising from award restructuring; the restructuring of the Technical and Further Education College system (which is the major

provider of vocational education), to ensure quality and exposure to competition from other providers of training services; and the establishment in 1990 of consistent national standards and accreditation for vocational training by the National Training Board so as to improve labour mobility and the transferability of skills. As regards R&D, measures to reduce tax deductions were reversed in March 1991 and the Government has announced a number of initiatives to establish a network of co-operative research centres.

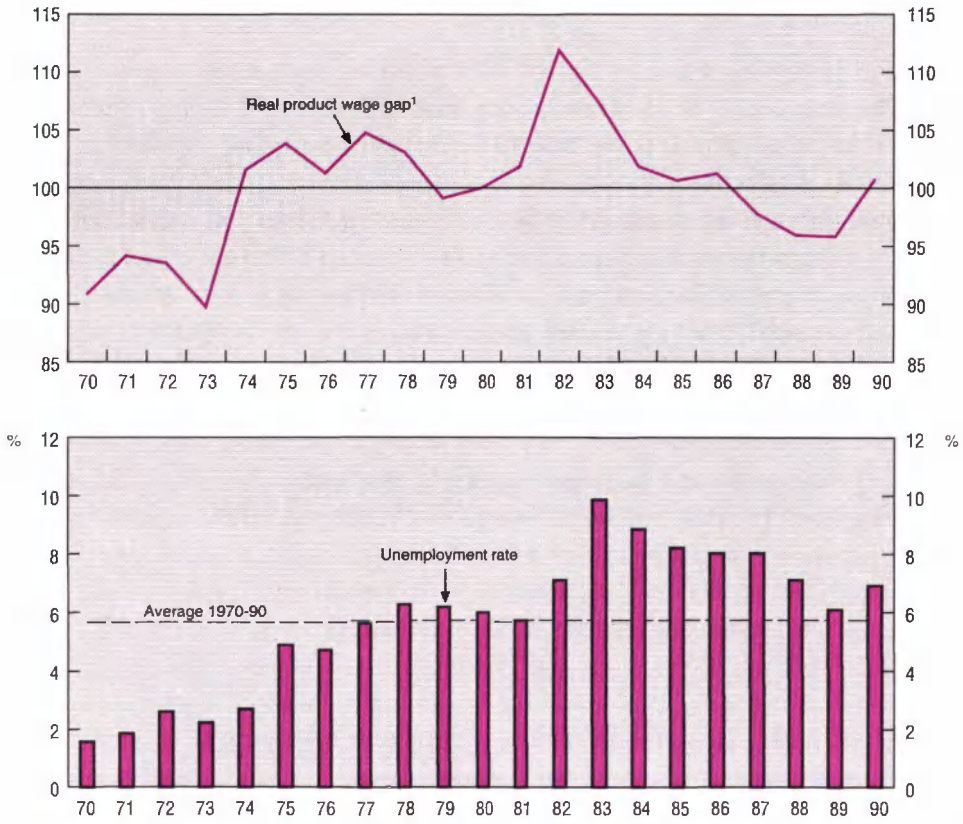
The industrial relations system

The need to eliminate restrictive work practices has been particularly pressing. The complexity of Australia's industrial relations system has often been singled out as the principal obstacle to faster restructuring of the economy and more rapid productivity growth. What distinguishes the Australian industrial relations system is the traditionally heavy recourse management and labour have made to obligatory conciliation and arbitration through industrial tribunals, rather than on resolving differences through bilateral bargaining[32]. A centralised focus, and the associated tendency to refer disputes for settlement by industrial tribunals rather than at the workplace level, may have contributed to a traditionally high rate of industrial disputes prior to 1983. But since then, a more co-operative approach between management and unions has been encouraged under the broad terms of the Prices and Incomes Accord[33]. Moreover, the craft/occupational based nature of the trade union movement has meant that larger enterprises may have to negotiate with upwards of four or five unions within the constraints of maintaining industrial peace and established demarcation of specific tasks[34]. This task has been further complicated by the fact that changes in a specific award wage can have important "flow-on" effects within and beyond the firm[35]. The most striking example is the Metal Industry award. This award affects not only the metal trades, but other industries with workers employed in similar job classifications, as well as firms where metal unions are represented[36]. Multiple bargaining units and the traditional pursuit of comparative wage justice have tended to encourage the maintenance of historical wage differentials through centralised wage increases, despite differing conditions of supply and demand in various sectors of the labour market.

The Wage Accord process

Since 1983 the Government's wages policy has been determined within the framework of an Accord between the ruling Australian Labor Party and the Australian Council of Trade Unions (ACTU). The Accord framework has encompassed a broad economic and social agenda, including wages, labour

Diagram 26. **REAL WAGE GAP AND UNEMPLOYMENT**



1. Measured as the ratio of the real product wage to trend productivity adjusted for factor substitution, normalised at 100 over the 1970-90 period.

Source: OECD estimates.

market and industry policies, as well as a range of social wage issues. With the notable exception of April 1991, the Accord Agreements have been largely adopted by the Australian Industrial Relations Commission (AIRC) in its National Wage Case deliberations since 1983[37]. Successive versions of the Accord were highly successful in checking wage drift and an acceleration in nominal wage growth, notably when the unemployment rate dropped to around 6 per cent in 1988-89. The degree of nominal wage stability in the face of high inflation was impressive (Diagram 26). Equally impressive was the extent of the real wage reductions achieved and, associated with that, the number of jobs created over the period 1983-90[38]. But there was also widespread ''unexplained' wage moderation in most OECD countries during the 1980s[39]. While the stability of nominal wages meant that an acceleration in inflation was largely avoided, there was no virtuous circle of wage and price disinflation, until very recently. There are a range of views as to whether wage behaviour in Australia would have been as conducive to inflation control in the absence of wage/tax tradeoffs or if labour market reform had been pursued earlier – but it would appear that the Accord and the wage fixation process more generally has been an important part of Australia's recent disinflation process.

Shifting emphasis to improving efficiency

With the attainment of effective full employment in the late 1980s, the microeconomic policy agenda centred on enhancing Australia's productivity performance. In this general context, there was a growing realisation that a tightly-centralised wage system, with fragmented union representation at the shop floor, limited the scope for wage differentials to act as signals and incentives to suppliers and demanders of labour, impeded efficient resource allocation and perpetuated restrictive work practices[40]. Faced with the prospect of steady, phased tariff cuts, industry has increasingly ''bench-marked'' domestic work practices relative to world-best practices in forming investment decisions. Such comparisons typically do not place Australia in a favourable light. Indeed, the manufacturing sector has become a vocal critic of slow reform in the labour market and sheltered parts of the economy (see below). In a break from the past, after the 1987/88 Accord, the March 1987 National Wage Case decision introduced a two-tier system of wage increases: a general flat rate increase of A$ 10 a week, and a further 4 per cent linked to productivity improvements to be negoti-

ated at a decentralised level[41]. While this initiative established a link between wage increases and productivity and efficiency, its effectiveness in producing on-going productivity improvement was limited as wage increases were largely negotiated on the basis of one-off cost reductions.

As a consequence, the AIRC strengthened its emphasis on achieving improved productivity and efficiency through its Decision of August 1988 involving, *inter alia,* multi-skilling and broad-banding of tasks, establishment of skill-related career paths, creating appropriate wage relativities between different classifications of workers within the award and at the enterprise level, and ensuring that working patterns and arrangements would enhance flexibility and meet the competitive requirements of industry. This change was in line with the new Accord agreement and was generally supported by employer groups. The award restructuring process was an important part of workplace reform and the microeconomic reform agenda. It contributed by improving the efficiency of industry, ensuring that award structures were relevant to modern competitive requirements, and by providing workers with access to more varied, fulfilling and better-paid jobs. Two-part wage increases comprising a 3 per cent and a A$ 10 a week increase were allowed, contingent on a review of the awards with a view towards restructuring[42]. The August 1989 National Wage decision continued the process of award restructuring. Wage increases of some 6 per cent were to be paid in two instalments – subject to a commitment to abide by the principles of the National Wage Case and to progress in award restructuring.

The structural efficiency approach and award restructuring had positive effects on work practices, although varying widely by industry. A number of awards are still in the early stages of restructuring, while others, such as in the metal trades industries, are well progressed[43]. Award restructuring has improved incentives to acquire higher skill qualifications, broadened work classifications, improved upward mobility and removed work restrictions. There was a sharp fall in demarcation and other industrial disputes. These attitudinal changes have been conducive to enhanced co-operation in training and skill improvement, in an industry which once had one of the worst strike records.

Transition to a decentralised wage fixing system

A sixth Accord agreement was reached by the Government and ACTU in February 1990. The key feature of this agreement was again for a two-phased

general wage increase, but the agreement was subsequently amended to replace the first increase with a wage/tax trade-off. The sixth Accord agreement also made provision for enterprise bargaining based on achieved productivity improvements. This amended agreement formed the basis of submissions by these parties to the December 1990-February 1991 National Wage Case. Specifically, it proposed:

- to forego an indexation adjustment in view of the low September 1990 CPI increase, but with direct tax cuts from the beginning of 1991;
- a general $A 12 a week pay rise from mid-May 1991;
- the phasing-in of a further 3 per cent increase in superannuation contributions by employers;
- wage increases to be negotiated at the enterprise level based on achieved productivity and profitability.

The Accord proposals had the support of State Labor Governments and some industry-based employers groups. Nonetheless, there was widespread support for a move to enterprise bargaining, and a consensus that the pace of workplace reform was being constrained by an unduly centralised wage system.

In the event, the AIRC in its April 1991 decision declined the National Wage Case submissions of the major parties – a radical departure from its general adoption of Accord agreements since 1983. The AIRC stated that it:

- would allow a 2.5 per cent increase in wages upon satisfaction by the parties of the requirements of the structural efficiency principle and contingent on a revised "no extra claims commitment";
- did not endorse a move to enterprise bargaining at that stage; and
- would adjourn the claim for increased award-based superannuation pending the convening of a national conference to consider the issue.

The Commission noted that despite an apparent agreement between Government, unions and most employers' associations, there were important differences in interpretation and approach on how to introduce enterprise bargaining[44]. The AIRC stated that greater reliance on enterprise bargaining at this stage was inappropriate: the process of award restructuring had not been completed and a move to decentralised bargaining would thus be premature. In addition, the Commission judged that "the parties to industrial relations have still to develop the maturity necessary for the further shift of emphasis now proposed".

The wage fixing system at a cross-roads

The Commission's rejection of the sixth Accord came as a shock. The ACTU formally rejected the April National Wage Case Decision in May 1991 and resolved to secure implementation of the Accord through direct negotiations with employers. In May, the number of industrial disputes over implementation of increases agreed to under the Accord increased four-fold, especially in the metals sector. However, with clarification of the revised National Wage Decision's "no extra-claims" commitment and the structural efficiency concept, implementation of the 2.5 per cent wage increase got under way and the number of disputes returned to the relatively low levels experienced throughout the Accord period[45]. The delay in implementing the National Wage case meant that many employers incurred little or no increase in wages in 1990/91, but will be faced with payment of the April increase delayed until 1991/92.

In August 1991, the Commission considered a claim by the Metal Trades Industry Association and the Australian Chamber of Manufactures, to implement the April 1991 Decision for the metal industry. At that time and in view of differences as to how decentralised bargaining should be implemented, the Commission asked for written submissions from all parties by early September, concerning the future evolution of the wage fixing system and the appropriate role of the AIRC. In the interim, the August 1991 Budget announced the introduction of a levy, effective 1st July 1992, under which employers who do not provide a prescribed minimum level of superannuation support to their employees will be subject to a superannuation guarantee levy. The prescribed minimum level of superannuation support will be increased from 5 per cent of earnings in 1992/93 (3 per cent for small business) to 9 per cent by the year 2000. The Commonwealth Government also agreed with the ACTU to work towards a target of aggregate wages growth of around 5 per cent in 1991/92, although for its part the Government considered that the outcome would be close to 4½ per cent.

In its important October 1991 decision, the AIRC noted that, although not all of its concerns expressed in the April 1991 decision had been allayed, a further and concerted effort should be made to improve efficiency in workplaces. In this context, the AIRC accepted the need to provide for workplace bargaining and took the momentous decision to introduce an enterprise bargaining principle, providing for wage increases to be negotiated between unions and employers in

return for productivity changes at the workplace level. Under the principle, agreements are to be approved pursuant to Section 112 (consent awards) or Section 115 (certified agreements) of the Industrial Relations Act 1988. The Commission outlined ten requirements to be met before it would ratify a workplace agreement. Some of these requirements are designed to restrict ''wage flow-ons'' and include:

- workplace level implementation of the structural efficiency principle;
- the parties to the agreement must show that they have considered a broad agenda in the development of the agreement;
- the agreement must have been negotiated through a single bargaining unit;
- the agreement must provide that there will be no further wage rises during the life of the agreement, except those coming from a National Wage Case;
- the agreement must not involve a reduction in ordinary time earnings or departures from Commission standards of hours of work, annual leave with pay or long service leave with pay; and
- the agreement must be for a fixed term and must lapse after expiry, unless it is renewed.

The AIRC will have a facilitating role in the new system, conciliating with parties on disputed matters. However, the primary responsibility for achieving successful workplace bargaining outcomes rests on the parties directly involved. The Commission will not arbitrate. The AIRC has scheduled a review of the operation of the new wages system in May 1992. The Commission also indicated that the question of a general wage increase would be considered on its merits when such an application is made.

In order to facilitate a smooth transition to more decentralised arrangements, the Government is currently considering changes to the certified agreements provisions of the Industrial Relations Act, so that the direct bargaining alternative provided by these provisions is more clearly defined and separated from the mainstream conciliation and arbitration process. The Commission, in its October decision, also foreshadowed a review of award structures, with a view to rationalising the number and complexity of awards, and work towards this has com-

menced. The ACTU, for its part, is pursuing a complementary agenda of union amalgamations and significant gains in this area have already been made.

Wage fixing arrangements in Australia are now currently evolving in the direction of greater decentralisation and devolution, with greater scope for flexibility in wage outcomes. There have been major changes in attitudes, including key employer bodies, favouring this new direction. The transition in wage-setting is occurring against a background of considerable slack in the labour market and in advance of further reductions in tariff protection.

The new arrangements for workplace bargaining are designed to provide explicit incentives for productivity improvement at individual workplaces. It will be essential that productivity bargaining facilitates genuine productivity gains and that some of these gains be reflected in higher profits and lower prices (or lower price increases) as well as in higher wages. In a joint public statement, the Government and the ACTU have stated that they will work towards future wage outcomes consistent with keeping Australia's inflation at levels comparable with those of Australia's major trading partners.

Unfinished business

There are a number of areas of unfinished business. First, the process of rationalisation and restructuring of awards needs to be completed to ensure a smooth transition to single-unit enterprise bargaining. Second, the coverage of any future national wage increase has yet to be determined. In principle, these would be best confined to those not benefiting from enterprise-based increases, where agreements have been comprehensive and included compensation for all other considerations. Finally, judging by experience in other countries, there could be gains from moving from the current complex set of occupational wage minima towards a single social minimum wage – so long as that minimum was set at a level which did not overly discourage employment. Ultimately, however, a market-based wage system works most effectively if governments confine their activities to maintaining a stable medium-term economic policy environment, while enhancing competitive market forces in the economy generally.

Lower border protection and industry assistance

Microeconomic reform is an interactive process: increasing product market competition has spill-over effects on labour market reform and vice versa. Slow progress in other areas poses additional burdens on sectors open to active competition. To date, the single most important structural reform undertaken was the decision to cut Australia's high tariff rates unilaterally in the early 1980s. The general programme of further tariff cuts announced in May 1988 was substantially extended in 1991. By 1996, most tariff rates will be down to 5 per cent. Protection for textiles, clothing and footwear and passenger motor vehicles will also be reduced substantially by the year 2000, but will remain well above the Australian average. When implemented, the May 1988 programme will have reduced average tariffs on imports from just under 7 per cent in 1989-90 to 5.5 per cent. The 1991 extension will ultimately reduce average tariffs to about 2 per cent in the next decade[46].

Taking into account other government support (subsidies and grants etc.), the average nominal rate of assistance on output for the manufacturing sector is estimated to have dropped from 11 per cent in 1987/88 to just under 9 per cent in 1990/91, and the *effective rate of assistance* (ERA) from 19 to 15 per cent – a level still well above rates in the United Kingdom, Canada and the United States, although it is not clear to what extent these rates are comparable with Australian estimates[47]. The 1991 programme of tariff reductions will lower nominal and ERAs in manufacturing to 3 and 5 per cent, respectively, in the next decade. According to Industry Commission estimates, these additional cuts could reduce the implicit "tax" on consumers from 4.2 to 1.3 per cent and raise the level of GDP permanently by 0.4 per cent or some A$ 1.5 billion – and would come on top of efficiency gains accruing from the lowering of ERAs in manufacturing from 36 per cent in 1968/69[48].

Notwithstanding significant progress to date, large tariff-related distortions remain. Efficiency gains depend not only on reducing the absolute level of tariffs, but also on minimising differences in ERA levels *between* industries (levelling the playing field). To date, tariff reduction has reduced the dispersion of assistance only modestly. Before the introduction of the current programme of tariff cuts, the standard deviation of ERAs in manufacturing was 36 per cent. By 1990/91 this had fallen to 29 percentage points, and will fall to 9 percentage

points at the completion of the March 1991 programme of tariff reductions. Importantly, there will be large reductions in assistance for the highly assisted textiles, clothing and footwear and passenger motor vehicle sectors (where ERAs are still in the 50 to 100 per cent range). Quotas have already been removed from passenger motor vehicles, and will be removed from textiles, clothing and footwear by March 1993. The paradox is that these are sectors where Australia has little or no comparative advantage – and they will continue to receive ERAs of more than 10 per cent until the end of the decade. Indeed, certain sectors of the textiles and clothing industries will still receive ERAs of more than 50 per cent by the year 2000.

By world standards, Australian agriculture is a low cost-efficient sector, receiving relatively low government assistance. Producer Subsidy Equivalents (PSEs) for the Australian agriculture sector totalled 11 per cent of farm production in 1990 – the second lowest among the OECD countries (after New Zealand) and well below the OECD average PSE of 44 per cent. ERAs are relatively low in agriculture, averaging about 9 per cent in 1989/90 (latest estimate available) compared with 19 per cent in 1986/87, and will decline further in the mid-1990s. There has been wide disparity in assistance levels received by various agricultural commodities, although this has declined since the mid-1980s. Dairy and sugar receive relatively high, albeit declining, rates of support. Australian cheese exporters receive a market support payment (export subsidy) of approximately A$ 500 per ton, increasing total export returns to A$ 3 000 per ton. Across all Australian dairy exports over the past two years, these support payments have been equivalent to around 20 per cent of export prices, almost three times the level in New Zealand, but less than one-half that in EC countries. Total dairy exports account for around one quarter of Australian milk production. As regards sugar, ERAs rose in 1989/90 to some 25 per cent although they have declined substantially since the mid-1980s. The nominal rate of assistance for wool rose from 1 per cent in 1988/89 to 10 per cent in 1990/91, or 3 per cent and 28 per cent respectively in terms of ERAs. This increase reflected Commonwealth assistance to help the industry adjust to a downturn that culminated in the removal of the reserve price scheme in February 1991. Assistance to wool is projected to decline to about 6 per cent (nominal rate) and 15 per cent (effective rate) in 1991/92 as some of this assistance is unwound. Assistance to the dairy and sugar sectors is under review.

Deregulation

The Commonwealth Government has taken major initiatives to expose formerly regulated industries to competition. In each instance, the outcomes have confirmed the scope to obtain increased efficiency and improved customer service through liberalisation. The two-airline policy – which effectively reserved the major routes to Ansett and Australian Airlines – was terminated in early 1991, and a third operator – Compass Airlines – began service shortly thereafter. In December 1991, Compass was placed in the hands of a liquidator because of commercial difficulties. Three other potential operators – AAA Airlines, Trans-Continental Airlines and Southern Cross Airlines – have indicated their intention to enter the domestic aviation market. Deregulation of domestic aviation has resulted in fare discounting, notably on heavily-used routes where the average fare fell by 12.2 per cent in real terms between the September 1990 and June 1991 quarters. These price reductions have greatly stimulated traffic which, despite the marked deterioration in macroeconomic conditions, increased between the December 1990 and September 1991 quarters by 31 per cent. A particularly striking feature of this growth was the number of passengers who had previously never used air-service but rather relied on buses or trains.

Though more recent, the Government's decisions first, to privatise the domestic satellite operator, AUSSAT, and license its purchaser to operate a second telecommunications network, and second, to liberalise entirely the resale and shared use of telecommunications facilities, have already produced a significant response. The incumbent government-owned firms, Telecom and Overseas Telecommunications Commission Ltd., were merged into the Australian and Overseas Telecommunications Corporation (AOTC) in January 1992. AOTC proposes to continue a major cost-cutting exercise, already started by Telecom, seeking to reduce its staff by some 12 000 over a five year period (from a current level of about 78 000) and to wind back the cross subsidies which have heavily distorted their pricing structures. OTC, which has always operated relatively close to world best practice, has also sought to improve its efficiency, notably by further drastically reducing its international call charges, which are already the lowest in the OECD area. The Government has also announced that the duopoly would remain for five years (to 1997) with fully open competition in telecommunications thereafter.

Liberalisation has, however, raised a number of important competition policy issues which the Government will need to tackle. With respect to aviation, access to airport terminal gateways and passenger handling facilities remains a major barrier to entry for potential new entrants. Several other factors warranting further examination include: the pricing and allocation of landing slots; and their impact on the relative competitive positions of the incumbents relative to new entrants. Further changes are needed to ease the former incumbents' privileged access to these facilities.

The problems raised by the dominance of the incumbents are even greater in telecommunications; and the Government has chosen to address these by providing far-reaching powers to an industry-specific regulatory agency, AUSTEL. However, there can be risks inherent in relying wholly on industry-specific regulatory bodies: they may extend their regulation into segments of the industry where it is not needed; they are inevitably tempted to perpetuate industry-specific regulation even after the circumstances which justified it no longer persist; and their decisions may lead to inconsistencies between the competition policy regime bearing on the industry they regulate and that for industry as a whole. It consequently appears desirable to ensure that the transition away from industry-specific regulation is made as quickly as possible and that greater reliance is placed on reinforcing general, economy-wide, instruments of competition policy.

The Special Premiers' Conference initiative

There is a growing public awareness that the pace of reform needs to be speeded at *all* levels of government, on as broad a front as possible. A breakthrough in establishing a consensus was the agreement in 1990 by the heads of the Commonwealth, States and Territorial Governments of Australia, and representatives of local government to establish regular Special Premiers' Conferences (SPC) – to pursue a common microeconomic reform agenda. This approach will have particular benefits in areas where reforms need to be cross-border in nature (e.g. public utilities, railroads and electricity, and regulatory standards).

An area of particular concern in this regard has been overlapping and often different regulatory controls and laws between individual states in such diverse areas as transport, food and packaging standards and occupational qualifications.

Regulatory barriers severely reduce the scope of competition and constrain the exploitation of regional comparative advantage and economies of scale. Progress in standardising regulations (food and packaging, building codes and national vehicle standards) has been very slow, with reforms tending to *increase* rather than reduce the level of state regulation. Indeed the Industry Commission has noted that in the absence of reform, trade between Member states of the EC when the measures proposed for 1992 are fully implemented, would be less restrictive than between the States and Territories of Australia.

This situation is now to be addressed. The Commonwealth and State Governments agreed in July 1991 to accept common standards for goods marketing and occupational qualifications. A start in this respect has been made in the area of food, where a National Food Authority has been established to propose uniform standards for adoption by the National Food Standards Council, thus eliminating the necessity of having to comply with eight different standards. In other areas, the States have agreed to work towards common standards and, in any event, to move towards the principle of mutual recognition for each other's product standards and occupational entry qualifications by 1st January 1993[49]. New Zealand will also participate towards establishing common regulatory standards as part of Closer Economic Relations. The Government's aim is to develop national competency standards for all registered occupations and professions by the end of 1992.

Many other microeconomic issues were also addressed at the July 1991 SPC. An ambitious structural reform agenda was set at this conference, including *inter alia:*

- agreement between the Commonwealth and several State Governments to establish a *national rail corporation* to ensure an efficient national freight network[50];
- the establishment of a *national road transport* commission to regulate heavy vehicles in a consistent manner nation-wide and to implement road user charging for heavy vehicles;
- the establishment of a *national electricity grid,* to encourage more efficient electricity generation in heavily populated eastern and southern Australia;
- a framework for *monitoring the performance of* Commonwealth *and state business enterprises.*

In addition, a number of other reforms are now being discussed in consultation with the States and Territories including:

- extending road charges to light vehicles;
- extending coverage of the Trades Practices Act to sectors currently exempted (government trading enterprises, marketing authorities, government procurement and unincorporated bodies).

The reform process will receive further impetus from the extension of IC reports on areas of state responsibility such as government non-tax charges, marketing arrangements for primary products, energy generation and distribution and rail transport. The IC will continue to report on the need for further deregulation of industry and accelerated reform, including privatisation of public enterprises (including the State governments). Finally, an examination of the scope for redistributing spending and taxation responsibilities between the State and Commonwealth Governments has been proposed, with the aim of improving the efficiency and quality of goods and services supplied by the public sector[51]. To some extent, the pace of structural reform in other areas of the agenda may be independent of progress in redistributing taxing powers between the Commonwealth and State Governments. It is to be hoped that the sharp disagreements and the cancellation of the SPC meeting in November 1991 regarding taxing powers will not jeopardise progress in structural reform in other areas.

Corporatisation and privatisation

Reforming Australia's extensive government sector has proved to be a slow process, especially at the State Government level where the bulk of social infrastructure is owned and operated. Privatisation, and to a more limited extent corporatisation, is often viewed as an indicator of the Government's resolve to enhance public sector efficiency[52]. The Commonwealth Government has undertaken a limited privatisation programme[53]. Some State Governments have been more reticent to privatise[54]. Both Commonwealth and State Governments have moved to corporatise as a means of improving management practices.

Concern over the past poor performance of Government Business Enterprises (GBE) has promoted management reforms by removing government from direct day-to-day operations and by exposing GBEs to more advanced manage-

ment practices. Notwithstanding significant improvements in productivity in recent years[55], rates of return on capital have been disappointing and absolute levels of productivity remain low by international standards. To assess the performance of selected GBEs, the IC has adopted an 8 per cent real rate of return benchmark for the period 1985/86 to 1987/88 (the real rate on long-term government bonds, with a small margin for risk)[56]. On balance, estimated real rates of return on capital between 1985/86 and 1987/88 were well below the Commission's benchmark – with results ranging from –2.3 per cent for Australian National (shipping) Line, 1 per cent for Australian Post and 1.5 per cent for the Water Industry to 4 per cent for Qantas and 5.5 per cent for Telecom. Even allowing for the added costs of providing obligatory community services, rates of return on GBEs were well below the benchmark[57].

While the principle of user pays for public utilities (water, electricity, etc.) is widely applied, there are varying degrees of under-recovery and cross-subsidisation between different users – with consequences for resource utilisation and the quality of public investment. To give orders of magnitude of possible budgetary savings, the IC estimates that if state water authorities set charges to earn an 8 per cent rate of return, this could generate added income equivalent to 10 per cent of State Government revenue. Consultants have noted that the delivery costs of water services could be cut by 15 per cent a year through competitive tendering for asset replacement and by better management of assets to avoid premature replacement. More rational electricity pricing and a national energy grid could generate large savings through reducing excess regional production capacity, improving the plant mix and allowing more flexible fuel choice. Similarly, if identified inefficiencies were removed from vessels and the waterfronts, Australian National Line would have made a positive rate of return in 1987/88. All in all, experience in the United Kingdom and in New Zealand has shown that the key to improved productivity performance is putting rational incentive structures in place, and removing inefficiencies by exposing GBEs to market competition[58]. U.K. asset sales to date total £33.0 billion, more than 20 times the figure in Australia in absolute terms, while sales in New Zealand already exceed NZ$ 6 billion. The emphasis Government has placed on corporatisation represents an improvement on past practice, but a government corporation is not subject to the same incentives and risks as commercial business, as it is not faced

with the market sanctions of bankruptcy or take-over, and may be subject to Ministerial and Departmental interference in what should be purely commercial decisions.

Areas warranting further attention

The Special Premiers Conference's and IC's structural agenda is wide-ranging. If realised, it would radically change Australia's economic climate. However, inertia at the State/local level of government and possible conflicts over revenue sharing in a federal nation should not be underestimated. To cite one example, until recently little substantive progress has been made in water-front reform, despite long-acknowledged inefficiencies and attempts at reform since the Second World War. There are now some positive signs, with substantial reductions in stevedoring employment (37 per cent) being achieved since reform commenced in 1989, and reports of crane productivity rates rising to levels comparable with European ports. The Australian Wheat Board has stated that loading times of grain vessels have halved since 1989, along with stevedoring charges for grain. However, there remains further scope for improvement, particularly in those areas that are the direct responsibility of State Governments. In the area of shipping reform, there has also been significant progress, but more remains to be done. The average crew number on Australian flag vessels has been reduced from 33 in 1983 to an anticipated 21 in 1992 (comparable to those on other OECD vessels). Cabotage practices continue to limit competition in shipping on the Australian coast; a union accord has a similar effect on trans-Tasman shipping. As regards tax reform, the present Government proposed a single-stage retail sales tax (called a broad-based consumption tax) in 1985, but the proposal received little support, notably from business. Although a number of distortions have been removed from the present wholesale tax system (notably the recent removal of tax on many business inputs used by goods producers), the system still does not fully remove the indirect tax impost on business inputs in the way that a GST can do; official Australian estimates show that the wholesale sales tax adds less than 2 per cent to the cost of business inputs for virtually all categories of industry. Australian private sector studies estimate static efficiency gains from introducing a GST in the range 0.5 to 1 per cent of GDP[59]. However, the Government's view is that the potential GDP gains from introducing a GST are

insufficient to justify the risks involved for macroeconomic management, the disruption to business, and the difficulties of adequately compensating households for the price effects of GST.

Now that a more transparent decision-making framework is in place and significant labour market reform a possibility, what is critical is to progress on a wide-ranging structural agenda by changing entrenched attitudes of managers and workers and by reducing the market power of special interest groups. After a decade of slow progress, greater exposure of previously sheltered sectors of the economy to competition holds out the potential for more rapid structural reform in the 1990s.

IV. Conclusions

Following several years of rapid nominal income growth and the emergence of excess demand, the Australian economy slipped into sharp recession in mid-1990. By the September quarter 1991, real GDP (on an income basis) was 3.2 per cent lower than its peak in the June quarter 1990 – while there was an even larger peak to trough decline in non-farm product. Employment has been hard hit. Unemployment has risen sharply, reaching around 10½ per cent of the labour force by December. Inflation has dropped rapidly. The increase in the CPI over the year to the December quarter 1991 fell to 1.5 per cent (albeit, partly reflecting special factors) and was around 2 points below the OECD average (excluding Turkey). The current account deficit narrowed to an estimated 3½ per cent of GDP in 1991, but in relative terms remains the third largest among OECD countries.

A moderate recovery in the non-farm economy, led by exports and private consumption, is thought to have started in the second half of 1991. Real growth in retail sales appears to be continuing while private housing finance and building approvals are up significantly on the lows recorded in early 1991. There are also signs that the deterioration in the labour market is slowing. Business surveys report a more positive tone but overall remain relatively subdued. Private investment is likely to lag substantially in the current upturn – owing to a heavily indebted corporate sector, previous over-building in the commercial property sector, and a relatively moderate outlook for world trade growth and commodity prices.

On the assumption that fiscal policy and monetary conditions continue to be restrained, the OECD projects output growth of some 2 per cent in 1992; it is projected to remain below the growth of potential output until early 1993. Unemployment is likely to remain high at over 10 per cent of the labour force, albeit declining in 1993. Given persisting economic slack, inflation will probably

remain subdued, albeit picking up to around 4 per cent over the coming two years, as the effects of special factors wane and the 7 per cent decline in the effective exchange rate (from early December 1991 to mid-January 1992) feeds through into higher prices. The current account deficit is projected to stay in a range of 3½ to 4 per cent of GDP, with continuing strong export performance. This outcome may result in a stable foreign debt-to-GDP ratio and a declining debt-to-export ratio, thus removing, at least for a time, concerns about the sustainability of Australia's international payments position.

Over the medium term the Australian authorities place a high priority on maintaining a stable net external debt-to-GDP ratio as part of an overall strategy to promote sustainable economic growth. Macroeconomic policies will need to be sufficiently firm so that growth in production exceeds growth in spending for an extended period. Given the substantial consolidation during the 1980s, there is some room for manoeuvre on the fiscal side. However, fiscal policy settings during the recovery phase will need to be consistent with seeking a substantial structural public sector surplus to boost national savings in the longer term. Recent initiatives to encourage the spread of superannuation should encourage higher private savings over time. Microeconomic reform can also assist by encouraging growth in production and, through more efficient use of the existing capital stock, reducing investment requirements and hence demands on national savings.

The severity of the recession in part reflects the legacy of a period of unsustainably strong demand growth. With the benefit of hindsight, monetary conditions were eased too much in 1987. Reinforced by financial market deregulation, high profits, capacity constraints and a boost to the terms of trade, policy easing fed demand growth and a boom in the commercial property sector. The corporate sector became heavily geared and vulnerable to reduced cash flows. Monetary policy was subsequently tightened in April 1988 – Australia being one of the first countries to do so after the October 1987 sharemarket crash – but by then excess demand and the speculative asset price boom had gathered further momentum.

Given the erratic nature of short-term indicators, as well as inevitable recognition lags, the authorities initially reacted hesitantly. But, once the underlying strength of demand became clear, short-term interest rates were raised in successive steps through 1988, with, however, limited immediate effect either on

asset prices or on domestic demand. Eventually, by mid-1989, short-term interest rates reached some 18 per cent, implying virtually unprecedented *ex post* real interest rate levels by post-war or international standards. Once the asset price boom broke, powerful deflationary forces were unleashed – the severe squeeze on the cash-flow positions of heavily indebted firms provoked adjustments to stockbuilding, capital investment and employment levels – and, together with a sharp decline in the terms of trade, ultimately drove the economy into recession. Stress emerged in the financial sector.

As recovery begins, a central objective of policy should be to avoid another cycle of "boom and bust". This is an important consideration for monetary policy. Through much of the 1980s, monetary policy was assigned to more than one objective, including controlling inflation, reducing the current account deficit and supporting economic growth. Monetary policy was considered the instrument with greatest flexibility to respond to shocks. Fiscal policy was taken up by the task of medium-term budget consolidation and raising national savings, while the Wage Accord was intended to contribute towards inflation control and employment growth. This overall policy approach had limitations, although Australia had one of the highest rates of employment growth in the OECD region and fiscal policy was successful in progressively reducing budget deficits and government debt. Given inevitable uncertainties concerning the size and timing of changes in interest rates on the economy, which was exacerbated at times by inconsistent signals to markets about the authorities' intentions, monetary policy had little success in stabilising the real economy in a deregulated financial environment. Moreover, monetary policy could not be successful in permanently addressing current account problems as these are predominantly the result of real rather than monetary variables. Finally, wages policy did not deliver inflation performance comparable to Australia's trading partners'. In view of these considerations, monetary policy has been reoriented since the late 1980s more towards the single medium-term objective of inflation control.

The Australian authorities have at times allowed domestic demand to expand too rapidly and one manifestation of this in the 1980s was a relatively poor inflation record. These shortcomings probably reflected a view that the social costs of achieving low inflation were too high, or that the benefits of low inflation were too uncertain to warrant foregoing short-term growth for lower

trend inflation. However, low inflation is now a reality – although as in other countries, achieved at high short-term cost in terms of lost employment.

Australia's record as a low inflation country is recent. Inflation expectations have been reduced to relatively low levels. There is now a stronger recognition of the advantages of orienting monetary policy towards medium-term inflation control; and there is also a stronger recognition of the need to build credibility in the monetary authorities' commitment to maintaining low inflation. Given the susceptibility of the economy to terms-of-trade shocks, tying the Australian dollar to a "hard currency" is probably not a good option for building credibility. New Zealand and Canada have chosen to address the issue of policy credibility by adopting explicit intermediate inflation targets and by increasing the accountability of their central banks for inflation outcomes. However, the value of such an approach depends upon a range of factors and experience with it is too recent for any general lessons to be drawn.

Irrespective of how the Australian authorities choose to build anti-inflation "credibility" in monetary policy, it is essential that further cuts in interest rates be warranted by clear evidence of further declines in inflation expectations, the more so as wage fixing will increasingly be based on decentralised bargaining. Ultimately, low inflation is unlikely to be maintained unless monetary policy is placed in a firm, transparent, and accountable medium-term context and microeconomic reforms pursued more vigorously.

The Australian authorities have recognised that microeconomic reforms can reduce the adjustment costs of achieving low inflation and structural change, as well as raise potential output. A number of microeconomic reforms have been pursued since 1983, notably: phased unilateral tariff reduction; financial market deregulation; and, as in other OECD countries, tax reform to improve work, savings and investment incentives. Notwithstanding these initiatives, reform in these areas is far from complete. Even though effective tariff rates have been cut, they remain high, and notoriously so for textiles, clothing, footwear, and motor vehicles. As regards tax reform, there is further room for improvement and a number of issues are being addressed. Simplification of sales taxes, while not necessarily a priority issue, may be beneficial for the economy in the longer term.

Progress in other areas of microeconomic reform has been patchy but there has recently been encouraging progress in labour market reform. The wage determination system has reached a decisive cross-roads. Against the background

of a fragmented craft-based union structure, the system of highly centralised wage fixing delivered stable nominal wage increases, a high degree of real wage flexibility at the aggregate level and an excellent job creation record in the 1980s. But progress in implementing work-place reform and lifting productivity levels proved elusive. The highly centralised industrial relations system has hampered sound workplace employee relations as well as constraining the development of management skills to deal directly and productively with key features of industrial relations – especially the introduction of new and more efficient work practices. A consensus has emerged that faster progress in labour market reform is badly needed, and that the shift to more decentralised, enterprise-level bargaining holds out the best chance.

The Australian Industrial Relations Commission's (AIRC) October 1991 decision to abandon centralised wage fixing in favour of a decentralised enterprise-based wage bargaining system is a landmark decision. The guidelines it has established (notably pay increases subject to work-place reform, single bargaining units, no extra claims during the terms of contracts) should help to ensure a smooth transition to a market-based wage fixing system. Given the need to accelerate work-place reform and to change entrenched labour-management attitudes, the AIRC's decisions to return to its earlier role of setting minimum award wages and basic working conditions and to play a conciliatory role are a step forward. The Commission's decision to put in place a number of "checks" to limit wage "flow-ons" was prudent. Even though a complex set of occupation-based minimum awards will remain in place, the shift to market-based wage bargaining holds out the potential for fundamental change in labour and management attitudes and labour market behaviour.

Other areas of microeconomic reform warranting attention include:

- The domestic transport sector (railways, road transport, air travel, shipping and the ports), where productivity levels still lag behind those in other OECD countries and thus continue to impose deadweight costs on the economy. This sector has attracted much reform attention and initiative in the past twelve months, including the establishment of the National Rail Corporation and road transport reform. Port reform has not featured highly on the reform agenda but the Commonwealth is planning to ask the Industry Commission in 1992 to report on the need for further reform.

- State-run Government Business Enterprises (water, electricity, etc.) where productivity has also remained low and there is considerable scope for improved pricing policy. Electricity has recently been the subject of reform endeavours by the States, and in conjunction with the Commonwealth in the Special Premiers' Conference process. These reforms have already produced significant productivity gains, as well as a decision, flowing from the Special Premiers' Conference, to establish a National Electricity Grid. While the States have generally not favoured privatisation, there has been some limited progress in this area.
- Education, manpower training and R&D. Raising human capital and the skill levels of the labour force remains a priority. Participation rates in post-compulsory education are low by international standards. The system of education and training has not been capable of keeping up with increases in educational attainment overseas and has been biased against vocational skills – producing too few skilled workers, and training them too narrowly. Spending on training and R&D as a proportion of GDP severely lags that in the largest OECD countries – a situation possibly related to Australia's past industrial relations system.

In July 1991 the Special Premiers' Conference, having already set an ambitious agenda in a number of these areas and other areas where inter-governmental co-operation is the key, saw reform progress achieved in several of them. Apart from policies referred to above, these have included harmonising regulatory control and setting common road and safety standards. As regards training and work qualification, it is intended to harmonise standards where relevant or to have mutual recognition. Although hastening microeconomic reform is difficult in a federal nation where tax, spending and legal powers are shared, rapid success in these areas is critical. Such reforms hold out the possibility of ending the web of inconsistent regulations and controls which have impeded the free inter-state movement of goods and services and labour – and hence the exploitation of regional comparative advantage and economies of scale.

More vigorous microeconomic reform is urgently needed. Such action holds out the potential for sizeable welfare and efficiency gains for the Australian economy, estimated at some 6 per cent of GDP by the Australian Industry Commission. If realised, over say a five year period, such gains would double recent productivity growth – a welcome bonus, given continued uncertainty

surrounding the outcome of the Uruguay round and prospects for more liberal world trade in agricultural products, for which Australia is among the world's most efficient producers.

The challenge to the authorities in the 1990s is to match their excellent record in debt reduction, tariff and agricultural reforms in the 1980s by locking in low inflation and by further advancing structural reform. Monetary policy must play the key role in maintaining low inflation. Pursuing microeconomic reform more vigorously, by increasing competition throughout the economy, would boost economic performance and reduce the costs of keeping inflation low. With its rich natural resource base, Australia would thus be well placed to become a competitive, low inflation country in the fastest growing region of the world economy.

Notes and references

1. Recent research shows that stockbuilding behaviour in the 1980s became more procyclical in Australia – and that despite a lower stock/sales ratio its impact on the economy has increased. This development has occurred because more efficient management control techniques since the 1980s have allowed non-farm stock movements to be aligned to changes in sales more rapidly than in the 1970s – thereby amplifying the impact on demand of shocks to the economy. See *Economic Roundup,* Winter 1991, pp. 10-19, The Australian Treasury.

2. In September 1991, the female labour force participation rate was 52.3 per cent, unchanged from its year earlier and down only 0.4 percentage points from its July 1990 level. This was about one-half the drop recorded between August 1980 and August 1982. Empirical research in Australia suggests that participation rates are on average highly sensitive to cyclical factors, and would "normally" have dropped twice as much to date. See Chapman B., "The labour market in the Australian macroeconomy in the 1980s", pp. 7-79, Reserve Bank of Australia 1990, Ed. S. Grenville.

3. The job vacancy rate is the number of vacancies as a percentage of total employees plus vacancies.

4. See *Labour Force Status and Educational Attainment in Australia,* February 1991 ABS Catalogue No. 6235.0.

5. See *Job Search Experience of Unemployed Persons in Australia,* July 1990, ABS Catalogue No. 6222.0.

6. *Op. cit.* February 1991.

7. Farm commodity prices measured in Australian dollars dropped by roughly a third in the first half of 1991.

8. Ordinary-time earnings exclude wage compensation for overtime. Award wages are legally-binding minimum wage rates payable to a particular category of workers. The work-type categories are numerous and tend to be craft-based.

9. Fiscal years in Australia begin on 1 July.

10. Special factors included: crude oil and gas exports rose by 28 per cent in volume in reaction to the sharp rise in world energy prices in the second half of 1990 in the wake of the Gulf crisis; and gold exports rose by over 30 per cent in anticipation of a tax on gold mining in 1991.

11. Endogenous imports account for around 90 per cent of total merchandise imports and exclude lumpy items such as fuels, civil aircraft, associated aircraft equipment, defence equipment, ships and certain other government goods.

12. Treasury estimates are that wealth effects added 2 percentage points to the growth of consumption expenditure from 1987 to 1989. See *Budget Paper No. 1* 1991/92, Part II, pp. 2-29. The treatment of wealth effects in consumption behaviour is highly uncertain. While the Australian Treasury's estimate is large, equally large or larger effects can be found in U.K. models. See Church, K.B., P.R. Mitchell, D.S. Turner, K.F. Wallis and J.D. Whitley, "Comparative Properties of Models of the U.K. Economy", *National Institute Economic Review,* August 1991, pp. 59-74.

13. The authorities took the unusual step of imposing a standard 12 month notice of redemption period for unlisted property trusts in mid-1991, owing to the illiquid financial position of certain trusts.

14. A small increase in spending (A$ 313 million in calendar 1992) was subsequently announced in November 1991, including A$ 130 million for education and the expansion and bringing forward of infrastructure investment (A$ 102 million).

15. The general government budget balance is not affected by the State Governments' debt repayments to the Commonwealth Government – only the split of the deficit between the Commonwealth and state/local levels of government is affected by this transaction.

16. General government is defined to include: i) central government; ii) state and local government; and iii) social security funds. Public enterprise debt is not, therefore, included in the total for general government debt.

17. In assessing inflation trends, the private consumption deflator is often a preferred measure. The CPI can be a poor guide to inflation in the short run, as its movements are amplified when interest rates change rapidly, owing to the inclusion of mortgage interest rates in the home ownership component of the index. Even though the housing component is published separately, this statistical feature has important side-effects on the economy because the *total* CPI plays a central role in the public debate concerning inflation and in *de jure* indexation, contract decisions and national wage claims. Similarly the GDP deflator is strongly influenced by terms-of-trade movements.

18. A checklist of indicators was used at this time to help determine the appropriate stance of monetary policy. The main indicators included in the checklist were: money and credit aggregates, interest rates, the exchange rate, the external accounts, economic activity and inflation (see *Annual Report,* Reserve Bank of Australia, 1986).

19. These studies are: Murphy (1991), IMF (1990) and Coe *et al.* (1988). The cumulative GDP loss is the sum of differences between simulated and baseline GDP during the period in which simulated GDP is below baseline. The respective cumulative GDP losses (and increases in unemployment) in these studies are:

	Murphy	Multimod	Interlink
GDP (per cent)	–2.3	–2.0	–1.8
Unemployment rate	+0.9	n.a.	+1.5

Sources: Murphy, C. (1991) "The transitional costs of reducing inflation using monetary policy", in EPAC background Paper No. 11; IMF (1990) World Economic Outlook,

May 1990; Coe, D.T., M. Durand, M. Stiehler (1988), "The disinflation of the 1980s", OECD *Economic Studies* No. 11, pp. 89-121.

20. EPAC, "Improving Australia's inflation performance", Paper No. 48, p. 15, May 1991.

21. Wages are assumed to have a unitary elasticity with respect to prices in the long run.

22. The problem of time inconsistency in monetary policy was first formally explored in Finn Kydland and Edward Prescott, "Rules rather than Discretion: The Inconsistency of Optimal Plans", *Journal of Political Economy 85,* June 1977. A recent survey of this issue is in A. Steven Englander, "Optimal Monetary Policy Design: Rules versus Discretion Again", *Federal Reserve Bank of New York Quarterly Review,* Winter 1991.

23. In the market sector of the economy, which excludes those industries where no growth in labour productivity is assumed by national account conventions, hourly labour productivity grew on average by 1.9 per cent a year between 1982/83 and 1989/90, but by only 1.0 per cent between 1985/86 and 1989/90. This compares with an average growth rate of 2.9 per cent over the fifteen year period 1967/68 to 1982/83.

24. Of the major industry groups, TFP growth in the five years to June 1990 was 10 per cent in manufacturing, 15 per cent in mining, and 30 per cent in government business enterprises (albeit the latter from a low base). By contrast, TFP in wholesale and retail trade fell by 2 per cent, while that in construction and in recreation and personal services fell by 9 and 12 per cent, respectively, over the five years to June 1990.

25. The Bureau of Industry Economics (BIE) has surveyed productivity at four plants manufacturing water heaters owned by SA Brewing Holdings Ltd. and Kodak's production of colour photograph paper. In both cases, labour and capital productivity in U.S. plants were several times higher than Australian plants. The BIE has attributed a large part of this difference to better work practices and the awareness of employees of the need to become competitive *vis-à-vis* Mexico and other states *(The Australian Financial Review,* September 17, 1991, p. 8). Similarly, a comparison of Australian and American Smelters indicated that 108 out of a total workforce of 830 employed in Australia were to satisfy additional holiday entitlement. See the *Business Council Bulletin* April 1991, p. 12.

26. See "The size and efficiency of the public sector", Economic Planning Advisory Council, October 1990, Appendix C and "Productivity Growth for Government Business Enterprises and the Private Sector", Economic Planning Advisory Council, July 1991. In November 1990, the Government announced measures to open telecommunications to greater competition, by allowing further industry entry. The National Rail Freight Corporation has recently been established with the aim of rationalising inter-State freight operations.

27. See S. Englander and A. Mittelstadt, "Total factor productivity: macroeconomic and structural aspects of the slowdown", *OECD Economic Studies* No. 10, 1988.

28. See the OECD *Survey of the United Kingdom* 1990/91, pp. 54-60.

29. In 1988, the participation rate in upper secondary Australian education was 65.6 per cent compared with 96.3 per cent for Japan, 96.5 per cent in the United States, 72.8 per cent in the U.K. and 66.6 per cent for New Zealand. Full time participation in university education was 11.2 per cent compared with 12.8 per cent in Japan, 10.4 per cent in New Zealand, 23.0 per cent in the United States, 19.1 per cent in Germany and 17.7 per cent in France. In 1983, 39 per cent of school leavers continued with some kind of further formal education, either on

a full or part-time basis, at higher education institutions, technical and further education colleges, or attended training courses conducted by commercial and industrial enterprises. By 1991 this figure had increased to nearly 54 per cent. See Department of Employment, Education and Training, *Retention and participation in Australian schools 1967-1990,* monograph series No. 6, April 1991, and ABS, Catalogue No. 6227.0, "Transition from Education to Work", May 1983 and 1991.

30. See *Structural Adjustment and Economic Performance,* OECD 1987, p. 95.

31. Employers with an annual national payroll of A$ 214 000 or above are required to spend at least 1 per cent of that payroll on eligible training activities (rising to 1.5 per cent from July 1992). ABS training expenditure survey data show average spending as a percentage of payroll for all employers rising from 2.2 per cent to 2.6 per cent between the September quarters of 1989 and 1990. It is not certain how much of this increase simply reflected accounting changes made by firms to comply with the levy.

32. The Commonwealth Government is constitutionally constrained from setting wages or legislating directly on industrial relations. This is the responsibility of the industrial tribunals, with the Australian Industrial Relations Commission (AIRC) at the Commonwealth level and independent but parallel commissions in the six States. Wages and conditions of employment are prescribed by "awards" which are legally enforceable documents and have been traditionally determined largely on an occupation or craft basis. For a survey of the industrial relations system see the OECD *Survey of Australia* 1989/90, Chapter III and Annex II, April 1990.

33. In general, the number of working days lost in Australia from 1983 to 1988 was below the OECD average, in marked contrast to earlier periods. In 1990, 216 working days were lost per 1000 employees, the second lowest figure since 1967 – the lowest being 190 per 1000 in 1989.

34. A 1989 survey of larger enterprises showed that the "average firm" was covered by four awards and negotiated with five different unions. Rationalisation of the trade union movement since 1989 has reduced the number of unions in enterprises, to roughly three in the metal trades industry and is expected to reduce the number of bargaining units overall by about a third by the end of 1991. There has recently been a limited number of single unions established on green-field sites and in new businesses. Recently, the Victorian, Western and South Australian Governments have experimented with more flexible contracting arrangements – thereby by-passing formal union structures. For details on the structure of trade unions and award coverage, See the OECD *Survey of Australia* 1989/90, p. 61 and the Submission of the Commonwealth Government to the National Wage Case, September 1991, p. 59. Finally, the requirement of the October 1991 National Wage decision for the development of single enterprise bargaining units within an enterprise will also streamline negotiations at the enterprise level. The Commission's October decision also foreshadowed a review of award structures which has commenced and which should further contribute to the streamlining of award coverage.

35. In theory, the AIRC can limit "flow-ons" by limiting the coverage of awards. In practice, these options were not often pursued due to the high perceived costs of industrial unrest. Key bargains have knock-on effects in all OECD countries. However, wage "flow-ons" appear to

be particularly marked in Australia, perhaps strengthened by the ability of firms to pass on costs through so-called "rise-fall" clauses and/or due to weak product market competition.

36. The Metal Industry award covers a substantial number of occupational groups and dozens of disparate industries. As a result, workers in quite different industries (e.g. the food industry) have had their wages and working conditions affected by developments in a key bargain, where economic conditions are quite different. This key award affects a substantial number of enterprises, although the precise number is not known.

37. Prior to 1983, incomes policy had limited effectiveness. The AIRC controlled award wages – which are essentially minimum wages – but allowed "over-awards", which were prevalent during periods of rapid wage/price increases to be negotiated in the field. In 1983, the Labor Party Government established a consensus for wage restraint. From 1983 to 1987, the Accords between the ACTU and the Government included commitments to wage restraint and a return to centralised wage fixing in exchange for government commitments for social expenditure, income support, tax cuts and the establishment of a national superannuation fund. Centralised wage fixing was conducted through the AIRC, with compliance enforced by the requirement that unions make a "no extra claims" commitment before receiving increases in line with National Wage decisions. Since 1987, while the basic principles of the Accord have largely remained unchanged, wages policy has increasingly taken on the role of a catalyst for productivity improvements and labour market reform, gradually moving away from the highly centralised wage determination process initiated in 1983.

38. Some empirical studies, have found that wage equations estimated for Australia tend to overpredict wage increases since the 1983 Accord, with dummy variables set at unity from 1983 being significant. For a survey of the labour market debate see Chapman, B., "The Labour Market", in the *Australian Macro Economy in the 1980s,* Editor S. Grenville, The Reserve Bank of Australia 1990, pp. 7-65. and Lewis P.E.T. and D.J. Spiers, "Six Years of the Accord: An Assessment", *The Journal of Industrial Relations* March 1990, pp. 53-68.

39. See Chan-Lee J., D.T. Coe, and M. Prywes, "Microeconomic changes and Macroeconomic wage disinflation in the 1980s" *OECD Economic Studies* No. 8, 1987 pp. 121-156. Subsequent OECD analysis finds widespread wage moderation among most OECD countries in the 1980s. Although wage equations estimated by the OECD also tend to over-predict actual changes, unlike many Australian studies there is little or no statistically significant evidence of a structural break in behaviour. See Poret P., "The 'Puzzle' of Wage Moderation in the 1980s", ESD, OECD Working Paper No. 87, p. 13 and p. 40.

40. Data on inter-industry wage differentials indicate a trend towards decreasing dispersion since 1983, with a slight reversal of the trend in 1990. The coefficient of variation which was 14.66 per cent in 1983 rose to 16.22 per cent by 1986. It subsequently fell steadily to 12.82 per cent in 1989, followed by a slight rise to 13.1 per cent in 1990. See Borland J., "Incomes Policy and the inter-industry wage structure in Australia", University of Melbourne, 1991, *Research Paper No. 287* and Watts, M. and W. Mitchell, "The impact of incomes policy on the male inter-industry wage structure", *Journal of Industrial Relations,* 1990, pp. 353-369.

41. The latter to be granted under a "restructuring and efficiency principle" to include, *inter alia,* changes in work and management practices, reduced demarcation barriers and increased multi-skilling of job classifications.

42. Award restructuring was to be addressed through *inter alia:* establishing skill-related career paths, multi-skilling, broad-banding of job classifications, rationalising of union structures, improved training arrangements, creation of appropriate relativities, more flexible work patterns and rationalising respondents to awards.

43. For details, see the *Department of Industrial Relations,* "Report on the Operation of the Restructuring and efficiency Principle", 1990, and the April 1991 structural efficiency principle in "Review of Wage Fixation Principles", *Submission by the* Commonwealth Government, September 1991.

44. These concerns included *inter alia*: what productivity criterion should be used; potential for flow-on; whether such arrangements were to lie within the award system or take the form of over-awards; the relation between enterprise agreements and national wage case standards; and whether the AIRC should set a wage ceiling.

45. By mid-August, around 31 cases had been ratified under the April 1991 structural efficiency principle, representing roughly 30 per cent of wage and salary earners. Where the parties have sought ratification of agreements, the Commission has granted 2.5 per cent award rate increases and deferred consideration of productivity components. Other agreements have seen a range of time horizons: short-term agreements defer productivity claims until November; agreements ending in mid-1992 provide for two productivity-linked increases; and long-term agreements, ending in late 1992 allowing for three phased productivity-related increases. As regards the public sector, a 2.5 per cent increase in pay, in place of the $A 12 a week increase originally proposed has been granted. The agreements noted above allow for modification in the light of a general wage increase.

46. See "Changes to manufacturing industry assistance March 1991", *Industry Commission,* July 1991. It should be noted that around 40 per cent of imports enter duty free. However, as these are typically products which are not produced domestically, this raises the *effective* rate of protection for industries which do receive protection. The Commission *op. cit.* p. 13 notes that the credibility of the move to a more liberal trade regime may have been undermined by other forms of assistance, e.g. bounty assistance to Kodak and intervention to increase local content in construction platforms on the North West gas project.

47. For the United Kingdom, unweighted nominal and effective tariff rates in 1986 were 1.52 and 1.20 per cent respectively, see "Effective Tariffs in the United Kingdom: Estimates for 1986 and effects of simulated tariff reductions". *Department of Trade and Industry,* Contract No. EC/0811/88. The tariff-based measure understates the ERA for the United Kingdom. Estimates for the United States and Canada indicate considerably lower levels of effective protection than in Australia, see the OECD *Survey of Canada* 1988/89 pp. 63-74.

48. Industry Commission, *op. cit.* 1991 p. 2.

49. The only exceptions will be fringe products in which States wish to apply different standards. These would include pornography, gaming machines, fireworks and guns. At the time of writing, the Commonwealth had not yet joined this agreement between the States.

50. The railways are owned and operated by the State Governments often with incompatible wheel gauge systems and regulations.

51. The objective was to examine options to reduce "vertical fiscal imbalance", whereby the States raise about a quarter of all government revenue, but undertake about one-half of all outlays.

52. Government business enterprises (GBEs) represented roughly $70 billion in 1987/88, or some 8 per cent of total capital stock – with a large proportion of social infrastructure being owned by State Governments.

53. Since 1986, fourteen major Commonwealth asset sales and the recent sale of 30 per cent of the Commonwealth Bank of Australia have produced gross proceeds of about A$ 4 204 million.

54. The State Governments have differing positions with respect to privatisation and corporatisation. The *New South Wales* Government is privatising the Grain corporation and the State Bank. It has corporatised the Electricity Commission and the Hunter Water Board. While the *Victorian* Government has generally not favoured privatisation, it decided to sell part of the Loy Yang B Power Station and has commenced the sales process, and sold the State Bank of Victoria to the Commonwealth Government with the knowledge that the Commonwealth was planning to sell 30 per cent of the Commonwealth Bank of Australia. Further, Victoria has corporatised the Gas and Fuel Corporation, the State Electricity Commission, and the Melbourne ports and water works. It was the first to introduce rate of return targets for GBEs and has probably gone furthest in the reform of electricity, water and hospitals. *Queensland* has corporatised the Queensland Investment Corporation. *West Australia* has corporatised the R&I Bank and the Government Insurance Office. Active consideration of corporatising other government enterprises is under way. *South Australia* has no explicit policy on privatisation, but has put the operations of GBEs (e.g. water supply) on a more commercial basis. *Tasmania* is corporatising several government enterprises and will subject such enterprises to competitive neutrality, with respect to taxation and targeted rates of return.

55. Available estimates indicate that cumulative TFP growth in the GBE sector was nearly 30 per cent in the five years to 1990, compared with only 0.3 per cent for the private sector. However, productivity levels in GBEs were often only 50 per cent of those in other OECD countries (see above).

56. See "Measuring the performance of selected government business enterprises", *Industry Commission,* Information Paper August 1990.

57. *Op. cit.,* p. 2.

58. See for example, the OECD *Survey of New Zealand* 1990/91, and Hartley H., D. Parker, S. Martin, "Organisational status, ownership and productivity", *Fiscal Studies,* May 1991, pp. 46-60.

59. Butlin, M. (1990), "The Case for a Broad-based Consumption Tax", paper presented at the Victorian Employers' Federation Conference, "Goods and Service Tax, a Closer Look" and "Some Issues in the Consumption Tax Debate", *Business Council of Australia Discussion Paper,* March 1991.

Annex I

Technical annex

Diagram of contributions to price changes (Diagram 21)

The decomposition of the domestic demand deflator is based on the following identities:

$$P_G = GDP/GDPV = (D + E - M)/GDPV$$

$$P_G = P_D\,(DV/GDPV) + P_E\,(EV/GDPV) - P_M\,(MV/GDPV) \quad (1)$$

$$P_G = (W + Q + T)/GDPV = ULC + UQ + UT \quad (2)$$

where:

GDP	=	gross domestic product
GDPV	=	gross domestic product volume (i.e. V denotes volume, same as below)
W	=	total compensation of employees
T	=	net indirect taxes
Q	=	gross non-wage factor income (''profits'') defined as GDP minus (W + T)
D	=	total domestic demand
E	=	exports of goods and services, N.A. basis
M	=	imports of goods and services, N.A. basis
ULC	=	W/GDPV
UQ	=	Q/GDPV
UT	=	T/GDPV
P_G	=	GDP deflator
P_D	=	total domestic demand deflator
P_E	=	export deflator
P_M	=	import deflator

Combining two equations (1) and (2) above, the following is derived[1]:

$$\dot{P}_D = ULC\ \frac{(\dot{W})}{(D)} + UQ\ \frac{(\dot{Q})}{(D)} + UT\ \frac{(\dot{T})}{(D)} - \dot{P}_E\ \frac{E}{D} + \dot{P}_M\ \frac{M}{D} + R$$

The various components of per cent changes in the domestic demand deflator are defined as per cent changes in unit labour costs, unit profits, unit tax and terms-of-trade effects, respectively: R indicates effects of compositional changes and equals:

$$R = \frac{GDP}{D} \times \frac{\dot{(GDPV)}}{(DV)} - \frac{E}{D} \times \frac{\dot{(EV)}}{(DV)} + \frac{M}{D} \times \frac{\dot{(MV)}}{(DV)}$$

1. A dot on each variable represents $\frac{dx/dt}{x}$.

Annex II

Calendar of main economic events

1990

January — **Interest rates**

A reduction of between one-half and one percentage point in cash rates was announced.

February — **Wages Accord**

The Government and the Australian Council of Trade Unions (ACTU) reached an agreement on the key elements of Accord VI. This agreement called for two general wage increases in 1990/91, the introduction of principles to guide enterprise bargaining, further tax cuts from 1st January 1991 and additional employer contributions to superannuation.

Authorised dealers

The Reserve Bank announced changes to the ownership and operation of authorised money market dealers. Apart from other requirements still holding, ownership is now allowed by a single entity, and the limit of 50 per cent on foreign ownership was removed. Operational changes were also made in order to enhance the market's effectiveness and allow dealers more flexibility.

Prime Assets Ratio

The Reserve Bank announced that the Prime Assets Ratio would be reduced from 10 per cent to 6 per cent by May 1990, along with a minor variation to the definition of Prime Assets.

Interest rates

Cash rates were reduced by up to half a percentage point.

March **Federal elections**

The Federal Labor Government was re-elected.

April **Interest rates**

Cash rates were reduced from about 16½ per cent to a range of 15 to 15½ per cent.

June **Premiers' Conference**

The 1990 Premiers' Conference and Loan Council meeting was held, at which it was agreed to reduce the level of general purpose assistance to the States and the Northern Territory for 1990/91 by an estimated 2.4 per cent in real terms while maintaining basic global borrowing limits for State and Territory authorities at the same nominal level as in 1989/90.

The Loan Council also agreed that from July 1990 the States would arrange the supplementary finance required to meet the redemption at maturity of the debt issued by the Commonwealth on their behalf under the Financial Agreement. Analogous agreements would apply for the Territories.

In addition, it was agreed that a Special Premiers' Conference on microeconomic reform would be held later in 1990.

July **Commonwealth State relations**

A number of measures were announced by the Federal Government regarding relations between the Commonwealth and the State governments, including the ceding of financial institutions tax to the States and the scheduling later in the year of a Special Premiers' Conference to examine ways of reducing duplication in funding and services.

August **Interest rates**

Cash rates were reduced by about one percentage point.

Federal budget

The Treasurer delivered the 1990/91 Federal Budget to Parliament, foreshadowing a surplus of A$8.1 billion. This compared with an A$8 billion surplus in 1989/90. The budget contained personal income tax cuts of A$1.2 billion in 1990/91 and A$2.5 billion in subsequent years. Total revenue was expected to be A$101 billion, a real increase of 0.1 per cent over 1989/90. Total outlays were expected to be A$93 billion, a real increase of 0.6 per cent over 1989/90. Projections

for 1990/91 included a 2 per cent increase in real GDP, a CPI increase of 6.5 per cent, an unemployment rate of 7.25 per cent and a current account deficit of A$18 billion.

Banking

The Treasurer and the Victorian Government announced that the Commonwealth Bank would purchase the State Bank of Victoria and fund the purchase by the issue of non-government equity. Conditions of the purchase included that the Government maintain majority ownership and control of the Commonwealth Bank in perpetuity and that non-government equity be restricted to 30 per cent of the issued capital of the bank.

September **Wages**

The ACTU did not lodge a national wage claim (as previously expected) but announced that it would seek wage agreements consistent with Accord VI on an industry-by-industry basis.

Privatisation – aviation

The Australian Labor Party announced approval for government plans to sell Australian Airlines and 49 per cent of Qantas.

Privatisation – telecommunications

Cabinet approval was given for the merger of Telecom and the Overseas Telecommunications Corporation. The merger will be finalised in January 1992 with the formation of the Australian and Overseas Telecommunications Corporation (AOTC). The sale of the domestic satellite carrier AUSSAT was announced as the basis of introducing a second, private, telecommunications carrier into Australia. It was also announced that the resultant duopoly would remain for five years (to 1997) with fully open competition in telecommunications thereafter.

October **Greenhouse gas emissions**

The Government announced adoption of an interim planning target to reduce greenhouse gas emissions by 20 per cent below 1988 levels by the year 2005. The interim planning target is to be reviewed by Federal Cabinet in October 1991.

Interest rates

A reduction in cash rates of one percentage point was announced.

Statutory marketing authorities

The Federal Minister for Primary Industries and Energy, Mr. Kerin, announced a number of reforms to Statutory Marketing Authorities (SMAs). These included a loosening of the controls on SMA borrowings and the requirement that all SMAs hold annual general meetings in order to increase accountability to industry levy payers.

Special Premiers' Conference

A special Premiers' Conference was held to consider reforms to Federal State financial relations. The Conference agreed to establish a review of Federal State financial relations, although the level and incidence of taxation and public sector borrowing would continue to be determined primarily by the Federal Government. A progress report of the review would be presented to the May 1991 Premiers' Conference and a final report would be presented to the November 1991 meeting. The Premiers also agreed on reforms to road and rail transport and electricity supply.

Two Airline Agreement

The domestic airline industry was deregulated, allowing for the entrance of new carriers into the industry and greater competition on routes and fares.

November **Telecommunications**

The Prime Minister, Mr. Hawke, announced a number of changes to the regulations governing the telecommunications industry including the introduction of unlimited competition from 30th June 1997.

Wages

The Government reached agreement with the ACTU to replace the first of two proposed general wage increases under Accord VI with income tax cuts of equivalent value. This action was taken in response to an unexpectedly low increase in the September quarter CPI (0.7 per cent). It was also agreed that wages growth would be held to no more than 6.25 per cent for 1990/91, lower than the agreggate target of 7 per cent for 1990/91 mentioned in the original Accord VI.

December **Interest rates**

A reduction in cash interest rates of one percentage point was announced.

1991

January **Waterfront reform**

The first enterprise agreement under the Government's waterfront reform programme was approved by the Waterfront Industry Reform Authority. The agreement, between National Terminals (Australia) Ltd. and stevedoring unions, was aimed at improving productivity. New work practices would be introduced and the existing work force would be reduced by 34 per cent.

February **Wool industry**

The Federal Minister for Primary Industries and Energy, Mr. Kerin, announced the suspension of the Reserve Price Scheme for wool until 30th June 1991. Instead, the price of wool would be determined freely by the market.

March **Industry policy**

The Industry Statement was announced in Parliament. Major items included a reduction in the general level of assistance from 10 per cent and 15 per cent in 1992 to a general rate of 5 per cent by 1996, tariff reductions on passenger motor vehicles and textiles, clothing and footwear and a reduction in general agricultural assistance. Also included were measures to exempt from sales tax certain inputs into goods production and proposals for the simplification of depreciation provisions for tax purposes.

April **Interest rates**

A reduction in cash interest rates of one-half of a percentage point was announced.

Public sector banking

The Queensland Government announced that it would put its banking requirements, previously handled exclusively by the Reserve and Commonwealth Banks, up for competitive tender. Queensland was the first State government to open its banking business to tender.

Wages

The Australian Industrial Relations Commission (AIRC) handed down its National Wage Case decision, rejecting key elements of Accord VI. A 2.5 per cent general wage increase was granted instead of the flat A$12 preferred by the Government and the ACTU; enterprise level bargaining was not endorsed; and a decision on superannuation was postponed.

The ACTU announced its intention to pursue the implementation of the Accord VI wage agreement through direct bargaining at the company level.

Government finance

The Commonwealth resumed the issue of Treasury Bonds with a tender, the first since July 1989.

The restriction on borrowings in the Australian capital market by foreign governments and international organisations was relaxed.

May

Wages

Waterfront employers and unions settled on a wage and productivity agreement which contained most elements of the Accord VI package.

The Federal Government released a set of guidelines for enterprise bargaining based on Accord VI.

The Federal Government and the ACTU reached an agreement on a wage package based on Accord VI for all public sector employees.

Building industry employers and unions reached an agreement based on the Accord VI wage package.

Interest rates

An easing of monetary policy was announced, with a reduction in cash interest rates of 1 percentage point.

Premiers' Conference

The Premiers' Conference and Loan Council Meeting was held at which it was decided that States' grants would be maintained at real levels and basic global borrowing limits maintained at nominal levels. The Premiers' Conference also endorsed a new framework for nationally co-ordinated and uniform State supervision of building societies and credit unions.

June **Wages**

The Australian Industrial Relations Commission handed down its decision on the waterfront agreement. In accordance with its April National Wage Case decision, the AIRC substituted a 2.5 per cent general wage increase where a flat A$12 was requested and deferred consideration of the second two of the three productivity-related wage rises.

Wool industry

The Reserve Price Scheme for wool, which had been suspended in February, was terminated.

July **Budget outturn**

The Treasurer and Minister for Finance announced that the actual 1990/91 Federal Budget surplus was A$1.9 billion compared with a budgeted figure of A$8.1 billion.

Banking

The Commonwealth Bank Board announced its public share issue representing almost 30 per cent of the shares in the Commonwealth Bank.

Wages

The AIRC amended its decision on the building industry agreement, substituting a 2.5 per cent general increase for the requested increase of a flat A$12, allowing a 2.5 per cent wage increase for work-related expenses, and rejecting most other elements of the agreement.

The Metal Trades Industry Association and metal unions reached a wages and enterprise bargaining agreement, based on the elements of Accord VI. This agreement was subsequently submitted to the Australian Industrial Relations Commission for ratification.

Special Premiers' Conference

The Special Premiers' Conference was convened. Major agreements included the establishment of a road charging system for heavy vehicles, the establishment of the National Rail Freight Corporation, which will bring together State rail freight operations under one body, and the establishment of a National Electricity Grid Management Council.

August **Wages**

The AIRC handed down its decision on part of the metal industry agreement, substituting a 2.5 per cent general wage increase for the requested general increase of a flat A$12, and announcing that other elements of the agreement would be used to initiate a review of wage fixing principles. The Commission sought written submissions from industrial relations parties and commenced its deliberations in September.

Federal budget

The 1991/92 Commonwealth Budget was presented. A deficit of A$4.7 billion was projected, compared with a surplus of A$1.9 billion in 1990/91. Total revenue was expected to be A$96.8 billion, a decrease of 4.1 per cent in real terms. Total outlays were expected to be A$ 101.5 billion, a real increase of 2.6 per cent over 1990/91. Projections for 1991/92 included a 1.5 per cent increase in real GDP, a CPI increase of 3 per cent, an unemployment rate of 10.5 per cent and a current account deficit of A$14 billion.

Privatisation – shipping

The Government announced that it would sell a substantial proportion of the Australian National Line (ANL). The sale process is expected to commence mid-1992.

September **Interest rates**

A reduction in cash interest rates of 1 percentage point was announced.

October **Wages**

The AIRC handed down its decision on the Review of the Wage Fixing Principles which included the establishment of a new Enterprise Bargaining Principle. This principle opens up greater scope for work-place bargaining and has the potential to achieve greater flexibility in the wages system in a manner designed to facilitate better productivity performance. The AIRC has also indicated that it supports the basic thrust of the metal industry agreement, but has asked that it be re-submitted under the new principle. The AIRC's decision attracted widespread support from government, employer groups and the trade union movement.

Waterfront reform

Following the earlier resolution of stevedoring wage issues, enterprise agreements were completed in all major capital city ports, allowing the immediate implementation of major work-practice restructuring. This should result in significant ongoing productivity increases.

November **Interest rates**

A reduction in cash interest rates of 1 percentage point was announced.

Government expenditure

The Government announced a number of spending measures to enhance existing training and education programmes. Some foreseen infrastructure investment would also be brought forward to FY 1991/92.

Government finance

The Government announced the introduction of a 5 week Treasury Note to complement the existing 13- and 26-week Notes.

Telecommunications

The Government selected Optus Communications as Australia's second telecommunications carrier. Optus will pay the Government A$800 million to acquire the Government's satellite company AUSSAT and the right to compete with AOTC.

December **Privatisation – aviation**

Information memoranda were issued to all parties interested in purchasing equity in Qantas, with a similar document on Australian Airlines expected to be issued in early 1992.

1992

January **Interest rates**

A reduction in cash interest rates of 1 percentage point was announced.

STATISTICAL AND STRUCTURAL ANNEX

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Selected background statistics

	Average 1981-90	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
A. Percentage changes from previous year at constant 1984/85 prices											
Private consumption	3.1	4.3	2.7	1.4	3.0	4.8	1.3	2.1	3.6	5.1	2.5
Gross fixed capital formation	3.1	9.5	–2.4	–8.5	9.1	10.1	–2.0	2.6	8.1	10.7	–5.9
Public	2.0	–7.2	–2.2	3.1	8.4	11.1	8.8	–5.0	–11.8	6.4	7.9
Private	3.4	11.9	–2.4	–9.9	9.2	10.0	–3.4	3.7	10.9	11.2	–7.4
Residential	0.7	2.8	–13.1	–10.9	20.9	2.2	–8.3	0.2	21.4	4.3	–12.4
Non-residential construction	6.8	16.9	2.9	–20.2	1.0	23.1	9.5	13.9	20.8	9.4	–9.2
Machinery and equipment	5.3	19.0	–1.2	–11.2	14.0	11.8	–4.0	5.4	15.2	15.0	–10.9
Public enterprises	2.6	11.6	8.1	1.1	–5.6	9.6	–5.2	–3.1	–20.7	16.5	13.9
GDP	3.3	3.7	–0.2	0.6	7.4	4.8	2.3	4.4	3.5	4.4	1.7
GDP price deflator	7.7	9.6	11.1	8.2	6.4	6.2	7.2	7.5	9.0	7.9	3.9
Employment	2.3	2.1	–0.0	–1.8	3.0	3.1	4.1	2.2	3.7	4.4	1.8
Compensation of employees (current prices)	11.0	15.9	16.3	3.7	11.0	9.5	10.9	8.5	10.9	13.5	9.9
Productivity (GDP/employment)	1.0	1.6	–0.1	2.4	4.3	1.7	–1.7	2.1	–0.3	0.0	–0.1
Unit labour costs (compensation/GDP)	7.5	11.7	16.5	3.1	3.3	4.5	8.4	4.0	7.2	8.7	8.1
B. Percentage ratios											
Gross fixed capital formation as % of GDP at constant prices	23.9	25.5	25.0	22.7	23.1	24.2	23.2	22.8	23.9	25.3	23.4
Stockbuilding as % of GDP at constant prices	0.4	0.8	–0.1	–0.8	1.1	0.5	–0.2	–0.1	0.6	1.5	0.2
Foreign balance as % of GDP at constant prices	–2.0	–3.1	–3.2	–1.6	–2.4	–1.8	–0.5	0.6	–1.5	–4.8	–2.1
Compensation of employees as % of GDP at current prices	51.4	53.1	55.8	53.2	51.5	50.8	51.5	49.6	48.9	49.1	50.6
Direct taxes as % of household disposable income	21.9	20.3	21.9	19.5	21.3	21.3	23.2	23.3	23.8	22.9	22.0
Unemployment as % of total labour force	7.6	5.7	7.1	9.9	8.9	8.2	8.0	8.0	7.1	6.1	6.9
C. Other indicator											
Current balance (US$ billion)	–10.2	–8.5	–8.4	–6.0	–8.8	–9.0	–9.4	–8.1	–10.4	–18.0	–15.0

Source: Australian Bureau of Statistics and OECD Secretariat.

Table A. **Gross domestic product**

A$ million

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
	Current prices									
Private consumption[1]	88 567	100 407	111 264	121 895	136 785	150 601	166 074	184 200	206 582	224 715
Government current expenditure[1]	26 644	30 322	34 054	38 233	42 463	47 068	50 189	54 458	59 109	64 867
Gross fixed capital formation[2]	38 770	42 245	41 567	47 275	56 508	61 107	66 918	76 793	89 527	86 769
Private	28 426	29 826	27 843	32 891	39 462	42 516	47 975	60 139	69 624	63 810
Public enterprises	6 414	8 008	8 770	8 715	10 352	10 756	11 084	9 413	11 750	13 716
Government	3 930	4 411	4 954	5 669	6 694	7 835	7 859	7 241	8 153	9 243
Change in stocks	1 093	–57	–1 641	2 122	1 290	–646	65	1 920	5 214	511
Exports of goods and services	22 475	24 769	26 269	31 104	37 929	40 195	46 221	52 494	56 833	62 468
Imports of goods and services	26 703	30 103	28 832	35 449	43 909	46 880	49 602	55 807	66 548	66 550
Statistical discrepancy	–1 398	–1 877	–2 335	797	–1 837	–95	2 133	4 058	7 502	6 830
Gross domestic product at purchasers' values	149 451	165 707	180 347	205 979	229 231	251 351	281 998	318 118	358 221	379 611
Indirect taxes less subsidies	15 846	18 277	20 486	23 969	28 219	29 157	34 741	38 675	42 438	44 757
Gross domestic product at factor cost	133 605	147 430	159 861	182 010	201 012	222 194	247 257	279 443	315 783	334 854
	Average 1984/85 prices									
Private consumption[1]	116 956	120 127	121 836	125 466	131 491	133 224	136 055	140 990	148 236	151 898
Government current expenditure[1]	35 551	35 434	37 346	39 090	41 273	42 807	43 451	44 600	45 823	47 567
Gross fixed capital formation[2]	50 119	48 920	44 749	48 840	53 775	52 712	54 061	58 439	64 675	60 851
Private	36 042	34 255	29 813	33 992	37 415	36 305	38 294	45 342	50 011	44 519
Public enterprises	8 767	9 473	9 581	9 043	9 908	9 388	9 096	7 215	8 407	9 579
Government	5 310	5 192	5 355	5 805	6 452	7 019	6 671	5 882	6 257	6 753
Change in stocks	1 508	–150	–1 515	2 325	1 077	–441	–257	1 549	3 881	406
Exports of goods and services	27 355	29 089	28 387	32 888	36 130	37 992	41 885	43 145	44 326	49 327
Imports of goods and services	33 501	35 318	31 581	38 038	40 131	39 115	40 399	46 740	56 681	54 791
Statistical discrepancy	–1 784	–2 205	–2 158	1 052	–1 792	–357	1 902	2 911	5 403	4 841
Gross domestic product at purchasers' values	196 204	195 897	197 064	211 623	221 823	226 822	236 698	244 894	255 663	260 099

1. Not adjusted for the impact of the introduction of Medicare from 1 February 1986, which had the effect of transferring certain expenditures on healthcare, formely included as private consumption expenditure, to public consumption expenditure.
2. Not adjusted to remove the impact of the sale to the private sector of public sector assets under leaseback and similar arrangements.

Source: Australian Bureau of Statistics.

Table B. **Income and expenditure of households (including unincorporated enterprises)**

A$ million, current prices

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Compensation of employees	79 335	92 207	95 633	106 131	116 222	128 846	139 812	155 108	175 970	191 669
Income from property and entrepreneurship	25 335	26 379	30 381	34 891	39 136	44 578	50 572	57 894	67 979	69 935
Farm	2 565	1 274	1 804	2 692	2 183	1 318	2 394	4 185	3 680	2 268
Non-farm	22 770	25 106	28 576	32 199	36 953	43 261	48 178	53 709	64 299	67 667
Current transfers from government	12 178	14 309	17 742	20 178	22 092	23 962	26 256	28 365	30 859	34 679
Grants to non-profit institutions	1 508	1 718	1 947	2 586	2 899	3 208	3 250	3 781	4 119	4 561
Third party insurance transfers	605	703	938	1 349	1 496	1 500	1 512	1 538	1 660	1 705
Unrequited transfers from overseas	751	881	1 152	1 234	1 691	1 982	2 478	2 971	3 552	3 428
Income	119 712	136 197	147 793	166 369	183 536	204 076	223 880	249 657	284 139	305 977
less :										
Income taxes	19 896	24 023	23 663	28 678	31 520	37 478	41 361	46 812	51 363	53 713
of which :										
Direct taxes paid on income	3 461	3 819	4 204	5 062	6 009	7 331	8 859	9 190	9 433	10 110
Consumer debt interest	1 465	1 962	2 246	2 443	3 027	4 124	4 426	4 974	7 724	8 481
Transfers paid by households	470	563	679	699	692	749	765	797	887	947
Disposable income	97 881	109 649	121 205	134 549	148 297	161 725	177 328	197 074	224 165	242 836
Consumption expenditure	88 567	100 407	111 264	121 895	136 785	150 601	166 074	184 200	206 582	224 715
Saving	9 314	9 242	9 941	12 654	11 512	11 124	11 254	12 874	17 583	18 121
as per cent of disposable income	9.5	8.4	8.2	9.4	7.8	6.9	6.3	6.5	7.8	7.5

Source: Australian Bureau of Statistics.

Table C. **Prices and wages**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
	Index FY 1984/85 = 100										
Price deflators											
Gross domestic product	69.5	76.2	84.6	91.5	97.4	103.4	110.8	119.2	129.9	140.2	146.0
Private consumption	69.2	75.7	83.5	91.3	97.1	103.9	113.0	121.9	130.5	139.3	147.8
Gross fixed capital formation	69.9	77.4	86.6	93.0	96.9	105.2	116.1	123.9	131.5	138.6	142.8
Exports[1]	79.3	82.4	85.3	92.8	94.8	105.2	106.0	110.6	122.1	128.6	127.0
Imports[1]	76.4	79.7	85.3	91.3	93.1	109.3	119.8	122.8	119.6	117.3	121.5
Terms of trade[1]	103.7	103.3	100.0	101.6	101.8	96.3	88.4	90.0	102.1	109.5	104.5
Consumer price index[2]											
Total	69.7	76.5	85.0	93.6	97.4	103.9	113.2	122.9	131.7	141.8	152.1
Food	69.3	76.1	85.4	94.0	97.3	104.0	113.5	124.0	132.8	142.4	153.8
Award rates of pay, adult persons	68.9	76.0	86.8	91.8	98.2	101.8	107.3	111.8	118.1	125.3	132.4
Average weekly earnings, all employees	..	..	82.9	89.0	97.8	102.5	109.7	115.4	123.1	131.7	140.4

1. Goods and services.
2. Not adjusted for the effects of Medicare. Based on the six state capital cities prior to 1981.
Source: Australian Bureau of Statistics and OECD Secretariat.

Table D. **Balance of payments**

A$ million

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Current account										
Exports, fob	18 462	20 471	21 644	25 965	31 953	33 159	37 461	41 835	45 977	49 835
Imports, fob	20 489	22 992	21 618	27 016	33 835	36 289	38 145	43 115	51 048	49 869
Trade balance	–2 027	–2 521	26	–1 051	–1 882	–3 130	–684	–1 280	–5 071	–34
Invisibles, net	–5 318	–5 809	–6 662	–8 940	–11 029	–10 957	–10 822	–12 054	–17 639	–19 262
Current balance	–7 345	–8 330	–6 636	–9 991	–12 911	–14 087	–11 506	–13 334	–22 710	–19 296
Capital account										
Government	317	1 064	529	1 969	4 158	5 211	4 793	5 965	2 436	–1 292
Balancing item[1]	760	842	1 459	1 558	–164	1 600	976	–2 948	5 111	8 225
Capital account balance	6 585	7 488	5 177	8 433	13 075	12 487	10 530	16 282	17 599	11 071
Official monetary movements										
Change in official reserve assets	27	4 967	3 222	–1 669	–3 388	1 028	396	6 811	763	2 267
Allocation of SDR	51	39	–8	158	99	–10	–6	–21	–23	–31
Other transactions	–3	–262	128	90	2	0	0	26	61	0
Net official monetary movements	75	4 744	3 342	–1 421	–3 287	1 018	390	6 816	801	2 236
Changes in market value of official reserves assets[2]										
Gold[3]	–1 120	718	–182	–348	680	917	672	–1 456	218	–136
Currency assets	19	5 235	3 310	–1 204	–806	2 344	1 166	3 963	1 406	3 591
IMF: Gold tranche	–16	–260	126	96	82	42	22	–48	89	39
Special Drawings Rights	46	42	1	164	202	42	9	–117	2	8
Total	–1 071	5 735	3 255	–1 292	158	3 345	1 869	2 342	1 715	3 502

1. Includes discrepancies in the current account as well as errors, omissions and timing differences related to capital transactions.
2. Includes changes due to fluctuations in the foreign currency value of assets, variations in exchange rates and the receipt of compensation under the Sterling Agreement. Foreign currency value of currency assets has been based on market quotations. From 1st September 1984, figures for official reserve assets are not fully comparable with earlier data due to changes in the Reserve Bank's accounting procedures.
3. Prior to 1976, gold is valued at the IMF official price in SDRs converted to Australian dollars at the derived SDR/dollar rate. From 1976, gold holdings are valued at the average London gold price for the month, converted to dollars at a market rate on the last day of the month.

Source: Australian Bureau of Statistics.

Table E. **Foreign trade by commodity**

	1980	1985	1988	1989	1990	1980	1985	1988	1989	1990
	US$ million					Per cent of total				
SITC sections:										
Total exports, fob	21 309	21 899	29 919	33 027	35 626	100.0	100.0	100.0	100.0	100.0
Food and live animals	7 171	5 227	5 477	6 497	6 802	33.7	23.9	18.3	19.7	19.1
Beverages and tobacco	48	45	140	118	155	0.2	0.2	0.5	0.4	0.4
Crude materials, inedible, except fuels	6 116	6 281	7 427	7 552	6 657	28.7	28.7	24.8	22.9	18.7
Mineral fuels, lubricants and related materials	2 363	5 853	4 972	5 082	6 656	11.1	26.7	16.6	15.4	18.7
Animals and vegetable oils, fats and waxes	114	95	70	48	45	0.5	0.4	0.2	0.1	0.1
Chemicals and related products, n.e.s.	475	368	625	729	830	2.2	1.7	2.1	2.2	2.3
Manufactured goods classified chiefly by material	2 483	2 224	3 829	4 277	4 408	11.7	10.2	12.8	13.0	12.4
Machinery and transport equipment	1 149	751	1 480	1 670	2 258	5.4	3.4	4.9	5.1	6.3
Miscellaneous manufactured articles	378	346	656	677	775	1.8	1.6	2.2	2.0	2.2
Commodities and transactions not classified according to kind	1 012	709	5 243	6 377	7 040	4.7	3.2	17.5	19.3	19.8
Total imports, cif	19 863	23 738	33 170	40 296	38 462	100.0	100.0	100.0	100.0	100.0
Food and live animals	760	939	1 296	1 479	1 459	3.8	4.0	3.9	3.7	3.8
Beverages and tobacco	182	189	287	304	313	0.9	0.8	0.9	0.8	0.8
Crude materials, inedible, except fuels	865	689	1 165	1 230	1 068	4.4	2.9	3.5	3.1	2.8
Mineral fuels, lubricants and related materials	2 749	1 592	1 339	2 072	2 192	13.8	6.7	4.0	5.1	5.7
Animals and vegetable oils, fats and waxes	79	75	86	96	97	0.4	0.3	0.3	0.2	0.3
Chemicals and related products, n.e.s.	1 784	1 994	3 152	3 490	3 497	9.0	8.4	9.5	8.7	9.1
Manufactured goods classified chiefly by material	3 528	3 773	5 579	6 591	5 870	17.8	15.9	16.8	16.4	15.3
Machinery and transport equipment	7 211	9 885	13 793	18 014	17 192	36.3	41.6	41.6	44.7	44.7
Miscellaneous manufactured articles	2 426	3 095	4 576	5 242	5 320	12.2	13.0	13.8	13.0	13.8
Commodities and transactions not classified according to kind	278	1 506	1 897	1 778	1 454	1.4	6.3	5.7	4.4	3.8

Source: OECD, *Foreign Trade Statistics*, Series C.

Table F. **Foreign trade by area**

US$ million

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Exports, fob											
OECD Europe	3 281	2 822	3 211	3 249	3 523	3 321	3 643	4 776	5 272	5 814	6 241
of which:											
United Kingdom	1 043	747	965	1 150	891	777	818	1 139	1 166	1 323	1 399
OECD North America	3 050	2 868	2 594	2 440	2 905	2 596	2 760	3 435	4 088	4 439	4 921
Japan	5 874	6 131	5 702	5 698	6 139	6 304	6 065	6 789	8 882	9 761	10 205
New Zealand	1 044	1 112	1 131	1 133	1 409	1 063	1 032	1 511	1 629	1 891	1 956
Far East	4 246	4 542	4 875	4 275	5 190	5 092	5 125	6 273	8 468	9 830	10 677
Other non-OECD countries	4 436	4 091	3 850	3 164	4 054	3 723	3 531	3 316	3 864	4 491	3 951
Non-specified	126	205	710	787	637	515	381	404	463	762	956
Total	22 062	21 774	22 077	20 750	23 861	22 617	22 541	26 508	32 670	36 991	38 911
Imports, cif											
OECD Europe	5 378	5 556	5 945	4 813	5 947	6 281	6 877	7 713	9 407	10 835	10 630
of which:											
United Kingdom	1 884	1 740	1 751	1 316	1 627	1 653	1 792	1 950	2 467	2 785	2 701
OECD North America	4 964	6 094	5 808	4 643	5 598	5 721	5 710	6 340	7 982	10 228	10 224
Japan	3 452	4 688	4 864	4 264	5 116	5 432	5 348	5 321	6 713	8 319	7 307
New Zealand	690	775	730	685	875	956	918	1 109	1 462	1 661	1 715
Far East	3 015	3 522	3 905	2 763	3 638	3 333	3 572	4 806	5 935	7 299	6 706
Other non-OECD countries	2 631	3 017	2 798	2 126	2 131	1 733	1 464	1 687	1 781	2 511	2 490
Non-specified	79	107	86	99	116	51	25	32	55	91	62
Total	20 212	23 764	24 140	19 397	23 424	23 511	23 919	27 010	33 339	40 948	39 138

Source: OECD, *Foreign Trade Statistics*, Series A.

Table G. **Production structure and performance indicators**

Fiscal years[1]	1974	1980	1985	1988	1989	1974	1980	1985	1988	1989
	GDP share					Employment share				
A. Production structure (constant prices)										
Tradeables										
Agriculture	4.3	3.8	4.1	3.5	3.7	6.9	6.5	6.2	5.7	5.4
Mining and quarrying	6.4	6.0	7.4	6.9	7.4	1.3	1.4	1.5	1.3	1.3
Manufacturing	20.8	19.7	17.3	17.7	17.5	23.5	19.6	16.7	16.2	15.6
Non-tradeables										
Electricity, gas and water	3.0	3.3	3.5	3.5	3.6	1.8	2.0	2.1	1.6	1.4
Construction	7.7	7.9	7.1	7.1	6.9	8.6	7.7	6.9	7.5	7.7
Trade, restaurants and hotels	17.9	16.7	15.8	15.8	15.5	19.9	20.1	22.9	23.8	24.3
Transport, storage and communication	6.1	7.1	7.5	7.9	7.7	7.6	7.4	7.6	7.0	6.9
Finance, insurance, real estate and business services	16.9	18.1	18.6	19.4	19.5	7.3	8.5	10.1	11.0	11.5
Community, social and personal services	14.6	15.0	15.6	15.5	15.4	18.8	22.1	21.2	21.6	21.6
	Productivity growth[2]					Investment share				
B. Economic performance (constant prices)										
Agriculture	–	0.0	4.3	–1.4	10.0	9.0	8.7	6.3	6.3	..
Mining and quarrying	–	–1.0	3.7	4.0	5.8	7.3	9.3	7.9	7.9	..
Manufacturing	–	3.7	2.3	2.2	3.0	16.3	15.7	12.3	14.3	..
Electricity, gas and water	–	0.9	2.5	10.9	15.7	12.8	12.7	10.0	6.4	..
Construction	–	3.8	1.9	–2.3	–4.4	2.7	3.3	4.0	3.8	..
Trade, restaurants and hotels	–	0.1	–2.0	–0.7	–3.4	8.8	10.0	9.3	10.2	..
Transport, storage and communication	–	4.3	2.3	5.2	–0.1	16.1	14.3	18.5	14.0	..
Finance, insurance, real estate and business services	–	0.1	–1.2	–1.0	–3.1	11.0	10.2	13.2	19.6	..
Community, social and personal services	–	–0.7	3.3	–0.3	–0.2	4.8	5.5	8.3	7.3	..

	1976	1978	1980	1984	1985	1986	1987	1988	1989	1990
C. Other indicators (current prices)										
Effective rate of protection, manufacturing	..	24	23	22	20	19	19	17	16	15
R&D in manufacturing / manufacturing GDP	0.9	1.0	..	1.4	1.8	2.2	1.6	1.7	1.7	..
Total R&D / total GDP	1.0	1.0	..	1.1	..	1.2	1.2	..	..	..
R&D financed by government / total R&D	74.7	76.5	..	68.5	..	60.7	..	..	..	..
Debt equity ratio of corporate trading entreprises	99.8	98.8	91.5	92.4	90.5	70.8	57.9	105.9	117.6	115.2
Levels of net foreign debt[3] / GDP	3.1	6.5	5.6	15.4	23.7	31.5	32.6	32.0	34.1	34.1
Levels of foreign direct investment[3] / GDP	..	..	17.1	16.4	17.0	17.0	20.8	21.9	24.4	24.4

1. Beginning 1st July of the year indicated.
2. Average rate of growth between periods.
3. At 30th June of the year indicated.

Source: Australian Bureau of Statistics, NIF-10s Model and *Foreign Investment Australia 1989-90;* Industry Assistance Commission, *Annual Report 1990-91;* OECD, *Main Science and Technology Indicators* and *National Accounts*

Table H. **Labour market indicators**

A. Evolution

	Peak	Trough	1985	1988	1989	1990
Standardised unemployment rate	1983: 9.9	1981: 5.7	8.2	7.2	6.1	6.9
Unemployment rate						
Total	1983: 9.9	1981: 5.7	8.2	7.2	6.1	6.9
Male	1983: 9.6	1981: 4.7	7.8	6.7	5.6	6.7
Female	1983: 10.4	1990: 7.2	8.8	7.9	6.9	7.2
Youth[1]	1983: 17.9	1989: 10.4	14.3	12.8	10.4	13.3
Share of long-term unemployment[2]	1984: 31.2	1982: 19.0	23.7	28.4	23.1	20.0
Non-farm vacancies (thousand)	1989: 68.2	1983: 17.6	54.0	63.2	68.2	48.3
Average hours worked, weekly	1970: 39.5	1983: 35.6	37.0	38.1	37.8	38.2
Overtime hours per week, non-farm	1989: 1.5	1984: 1.1	1.2	1.4	1.5	1.4

B. Structural of institutional characteristics

	1970	1980	1985	1988	1989	1990
Labour force (percentage change)[3]	–	2.0	1.7	2.9	3.9	2.6
Participation rate[4]						
Total	61.2	61.0	60.2	61.6	62.7	63.3
Male	83.0	77.9	75.2	74.2	74.9	75.0
Female	39.6	44.7	45.7	49.4	50.8	51.8
Employment by sector						
Per cent of total						
Agriculture	8.0	6.5	6.2	5.8	5.3	5.5
Industry	36.4	30.8	27.4	26.4	26.6	25.4
Services	55.6	62.7	66.4	67.8	68.1	69.1
Percentage change[3]						
Agriculture	–	–0.6	–0.4	1.0	–5.1	2.8
Industry	–	–0.1	–1.2	2.1	5.8	–2.6
Services	–	2.8	2.4	4.0	5.6	3.2
Total	–	1.5	1.2	3.3	5.1	2.5
Part-time employment (per cent of total employed)	10.6	16.4	18.1	20.1	20.9	21.3
Non-wage labour cost[5]	3.4	5.9	7.9	8.3	8.3	8.3

1. People between 15 and 24 years as a percentage of the labour force of the same age group.
2. People looking for a job since one year or more as a percentage of total unemployment.
3. Average rate of growth between periods.
4. Labour force as a percentage of the corresponding population aged between 15 and 64 years.
5. Total social contributions as a percentage of total compensation.

Source: Australian Bureau of Statistics; OECD, Secretariat estimates.

Table I. **The public sector**

	1973	1980	1985	1988	1989	1990
Budget indicators: General government accounts (per cent of GDP)						
Current receipts (excluding interests)	23.8	28.0	30.6	31.6	30.9	31.9
Non-interest expenditures	24.0	29.3	32.4	29.2	28.2	29.5
Primary budget balance	–0.2	–1.3	–1.7	2.4	2.8	2.4
Net interest (including net capital transfers)	2.2	0.8	–1.4	–1.2	–1.4	–1.3
General government budget balance	2.0	–0.5	–3.2	1.2	1.4	1.1
Structure of expenditure and taxation (per cent of GDP)						
Government expenditure	24.0	30.8	35.2	33.1	32.1	33.4
Transfers	6.9	9.5	11.2	10.3	10.0	10.5
Subsidies	1.1	1.5	1.8	1.5	1.3	1.2
General expenditure[2]						
Education	3.6	4.5	4.3	3.8	3.7	4.0
Transportation	1.5	1.6	1.6	1.4	..	..
Health	2.0	3.1	3.2	3.2	3.1	3.2
Tax receipts[1]	25.3	28.5	30	30.5	30.1	30.9
Personal income tax	10.3	12.5	13.6	14.0	13.4	13.2
Corporate tax	3.8	3.5	2.8	3.2	3.8	4.3
Payroll tax	1.3	1.4	1.4	1.7	1.7	1.9
Taxes on goods and services	7.5	8.8	9.8	8.5	8.5	8.7
of which:						
Specific taxes on consumption	4.7	6.4	6.1	4.6	4.4	4.8
Other indicators						
Income tax elasticity[1]	1.6[2]	1.2	1.1	1.1	0.5	0.1
Income tax as a percentage of total tax[1]	40.5	44.0	45.5	46.1	44.7	42.9
Gross public debt as a percentage of GDP	30.4	24.9	26.2	18.6	14.8	11.1

	Prior to		After
Tax rates (per cent)			
Top rate of income tax	49	1st January 1990	47
Lower rate of income tax	24	1st July 1989	21
Corporation tax rate	49	1st July 1988	39

1. Fiscal years beginning 1st July.
2. 1974 figure.

Source: Australian Bureau of Statistics; OECD, *National Accounts, Revenue Statistics of OECD Member countries* and Secretariat estimates.

BASIC STATISTICS:

INTERNATIONAL COMPARISONS

	Units	Reference period[1]	Australia	Austria	Belgium	Canada	Denmark	Finland	France	Germany	Greece	Iceland	Ireland	Italy	Japan	Luxembourg	Netherlands	New Zealand	Norway	Portugal	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States	Yugoslavia
Population																											
Total	Thousands	1989	16 833	7 624	9 938	26 248	5 132	4 964	56 160	61 990	10 033	253	3 515	57 525	123 120	378	14 849	3 343	4 227	10 337	38 888	8 493	6 723	55 255	57 236	248 762	23 690
Inhabitants per sq. km	Number	1989	2	91	326	3	119	15	102	249	76	2	50	191	326	145	364	12	13	112	77	19	163	71	234	27	93
Net average annual increase over previous 10 years	%	1989	1.5	0.1	0.1	1.0	0.0	0.4	0.5	0.1	0.5	1.1	0.4	0.2	0.6	0.4	0.6	0.6	0.4	0.5	0.5	0.2	0.6	2.4	0.2	1.0	0.8
Employment																											
Total civilian employment (TCE)[2]	Thousands	1989	7 725	3 342	3 670	12 486	2 610	2 460	21 484	27 208	3 671	140	1 077	20 833	61 280	181	6 065	1 461	2 014	4 377	12 260	4 466	3 518	16 771	26 457	117 342	..
Of which: Agriculture	% of TCE		5.5	8.0	2.8	4.3	5.7	8.9	6.4	3.7	25.3	10.0	15.1	9.3	7.6	3.3	4.7	10.3	6.6	19.0	13.0	3.6	5.6	50.1	2.1	2.9	..
Industry	% of TCE		26.5	37.0	28.5	25.7	27.4	30.9	30.1	39.8	27.5	30.7	28.4	32.4	34.3	31.5	26.5	25.4	25.3	35.3	32.9	29.4	35.1	20.5	29.4	26.7	..
Services	% of TCE		68.0	55.1	68.7	70.1	66.9	60.2	63.5	56.5	47.1	59.3	56.5	58.2	58.2	65.2	68.8	64.3	68.1	45.7	54.0	67.0	59.3	29.5	68.4	70.5	..
Gross domestic product (GDP)																											
At current prices and current exchange rates	Bill US $	1989	282.4	126.5	153.0	545.5	106.2	115.5	958.2	1 189.1	54.2	5.2	33.9	865.8	2 869.3	7.0	223.7	41.7	90.2	45.3	380.3	189.9	177.2	79.1	837.5	5 132.0	81.8
Per capita	US $		16 800	16 603	15 393	20 783	20 685	23 270	17 061	19 182	5 399	20 516	9 644	15 051	23 305	18 613	15 063	12 503	21 341	4 623	9 711	22 360	26 350	1 432	14 642	20 629	3 454
At current prices using current PPP's[3]	Bill US $	1989	240.4	102.1	135.0	506.7	74.9	74.6	818.0	929.0	72.8	4.0	31.6	799.7	1 934.4	6.5	203.6	38.2	69.4	72.1	401.2	131.7	119.0	247.4	820.6	5 132.0	..
Per capita	US $		14 304	13 407	13 587	19 305	14 594	15 030	14 565	14 985	7 253	15 870	8 984	13 902	15 712	17 192	13 709	11 446	16 422	7 360	10 244	15 511	17 699	4 481	14 345	20 629	..
Average annual volume growth over previous 5 years	%	1989	3.9	2.7	2.6	3.9	2.0	4.0	2.7	2.6	2.2	3.1	3.2	3.1	4.5	4.4	2.4	0.8	2.2	4.3	4.2	2.3	3.0	5.1	3.8	3.6	..
Gross fixed capital formation (GFCF)	% of GDP	1989	25.5	24.0	19.1	22.2	18.2	27.6	20.8	20.5	18.5	18.7	18.4	20.2	31.0	24.1	21.8	21.0	27.5	26.2	24.0	21.2	27.6	22.8	19.6	16.6	14.5
Of which: Machinery and equipment	% of GDP		10.7	10.2	9.5	7.5	8.0	10.9	9.3	9.3	8.0	5.1	9.9	10.6	13.0	10.9	10.6	10.5	9.4	9.8 (86)	8.5	9.6	9.5	11.7 (87)	9.4	7.8	..
Residential construction	% of GDP		5.4	4.7	4.1	7.4	4.2	7.7	5.1	5.3	4.6	4.3	3.6 (88)	4.8	6.1	4.3	5.5	4.9	4.1	4.8 (86)	4.9	5.2	18.1[9]	5.8 (87)	3.8	4.4	..
Average annual volume growth over previous 5 years	%	1989	6.1	4.6	7.5	8.1	3.5	6.3	5.3	3.5	1.3	1.6	0.5	4.1	8.1	7.8	5.7	3.2	0.2	8.9	11.1	6.5	6.7	4.6	6.9	3.9	..
Gross saving ratio[4]	% of GDP	1989	22.5	26.0	20.9	19.9	17.4	25.6	21.3	26.5	14.7	16.6	19.7	20.2	34.2	60.9	24.3	17.4	24.8	26.0	22.1	18.7	34.0	24.0	15.4	15.6	..
General government																											
Current expenditure on goods and services	% of GDP	1989	16.4	18.1	14.4	18.7	25.1	19.8	18.3	18.7	21.6	19.07	15.4	16.8	9.2	16.0	15.3	16.4	21.0	16.1	15.1	26.0	12.9	16.0	19.4	17.9	14.4
Current disbursements[5]	% of GDP	1989	32.1	44.9	53.3	41.6	56.0	35.1	46.2	41.6	47.7	32.1	49.9 (87)	47.1	25.6	45.0 (86)	51.7	..	50.9	40.4 (86)	35.5 (88)	57.3	29.9	..	37.6	34.6	..
Current receipts	% of GDP	1989	34.2	46.1	48.5	39.6	57.4	39.9	46.5	44.6	31.8	36.6	43.7 (87)	41.1	33.3	52.9 (86)	50.1	..	54.9	37.6 (86)	36.3 (88)	64.1	34.1	..	39.7	31.8	..
Net official development assistance	% of GNP	1989	0.38	0.23	0.43	0.43	0.88	0.57	0.75	0.41	0.07	0.04	0.16	0.39	0.32	0.26	0.97	0.23	1.05	0.18	0.06	0.88	0.33	..	0.31	0.17	..
Indicators of living standards																											
Private consumption per capita using current PPP's[3]	US $	1989	8 258	7 434	8 486	11 225	7 705	7 766	8 733	8 120	5 026	9 447	5 079	8 577	9 068	9 534	8 133	7 007	8 224	4 683	6 443	8 090	10 181	2 768	9 154	13 768	1 638*
Passenger cars, per 1 000 inhabitants	Number	1988	435 (87)	370	349	454 (86)	321	344	394	457	130	488	210 (87)	408	241	443	348	490	388	190 (87)	263	400	419	20 (83)	318	559	129 (87)
Telephones, per 1 000 inhabitants	Number	1987	550 (85)	525	478	780	864	617 (85)	608 (85)	650	413	525	265 (85)	488	555 (85)	425 (86)	639	697	622 (84)	202	396	890 (83)	856 (86)	91	524 (84)	650 (84)	154 (86)
Television sets, per 1 000 inhabitants	Number	1986	472	323	301	546	386	372	332	379	174	306	216	255	585	253	327	358	348	157	322	393	411	165	534	813	176
Doctors, per 1 000 inhabitants	Number	1989	2.3 (86)	2.1	3.3 (88)	2.2 (88)	2.7 (88)	2.0	2.6	3.0	3.2 (88)	2.7 (88)	1.5 (88)	1.3 (88)	1.6 (88)	1.9 (88)	2.4	1.9	2.5 (87)	2.8	3.7	3.1	2.9	0.8	1.4 (88)	2.3 (88)	1.8 (86)
Infant mortality per 1 000 live births	Number	1989	7.9	8.3	8.6	7.2 (88)	7.5	6.1 (88)	7.5	7.5	9.9	5.3	7.6	8.9	4.6	9.9	6.8	10.8 (88)	8.3 (88)	12.2	7.8	5.8	7.3	6.5 (88)	8.4	9.7	24.8 (88)
Wages and prices (average annual increase over previous 5 years)																											
Wages (earnings or rates according to availability)	%	1989	5.3	4.7	2.9	3.9	6.0	7.6	3.9	4.1	16.1	..	6.1	6.9	3.3	..	2.1	9.2	9.0	15.6	8.8	7.9	..	..	8.4	2.7	220.8
Consumer prices	%	1989	7.8	2.2	2.4	4.3	4.3	4.9	3.6	1.3	17.1	23.7	3.7	6.2	1.1	1.8	0.7	11.2	6.6	12.6	6.9	5.6	2.1	50.6	5.3	3.6	210.2
Foreign trade																											
Exports of goods, fob *	Mill US $	1989	37 191	32 448	100 081[7]	117 154	28 113	23 279	179 192	340 987	7 595	1 429	20 782	140 596	274 266	..[8]	107 760	8 883	27 145	12 722	43 408	51 592	51 683	11 557	153 121	363 811	13 363
As % of GDP	%		13.2	25.7	65.4	21.5	26.5	20.2	18.7	28.7	14.0	27.5	61.3	16.2	9.6	..	48.2	21.3	30.1	28.1	11.4	27.2	29.2	14.6	18.3	7.1	16.3
Average annual increase over previous 5 years	%		10.0	15.6	14.0	6.2	12.0	11.5	13.0	14.7	9.5	14.2	16.6	13.9	10.1	..	10.4	10.2	7.5	19.6	13.3	11.9	14.8	10.1	10.3	10.8	9.8
Imports of goods, cif *	Mill US $	1989	40 981	38 902	98 586[7]	114 288	26 721	24 537	186 159	269 403	16 200	1 407	17 490	152 910	209 763	..	104 224	8 822	23 630	18 842	70 971	49 113	58 464	15 793	197 806	473 211	14 802
As % of GDP	%		14.5	30.8	64.4	21	25.2	21.2	19.4	22.7	29.9	27.1	51.6	17.7	7.3	..	46.6	21.1	26.2	41.6	18.7	25.9	33.0	20.0	23.6	9.2	18.1
Average annual increase over previous 5 years	%		12.7	14.7	12.2	9.2	10.0	14.5	13.2	12.0	11.0	10.8	12.5	12.7	9.0	..	10.9	7.4	11.2	18.9	19.8	13.2	14.7	7.8	13.5	7.8	8.6
Total official reserves[6]	Mill SDR's	1989	10 486	6 543	8 192[7]	12 217	4 868	3 889	18 728	46 196	2 453	257	3 087	35 551	63 887	..	12 562	2 303	10 490	7 573	31 554	7 274	19 234	3 638	26 456	48 358	3 147
As ratio of average monthly imports of goods	ratio		3.1	2.0	1.0	1.3	2.2	1.9	1.2	2.1	1.8	2.2	2.1	2.8	3.7	..	1.4	3.1	5.3	4.8	5.3	1.8	3.9	2.8	1.6	1.2	2.6

* At current prices and exchange rates.

1. Unless otherwise stated.
2. According to the definitions used in *OECD Labour Force Statistics*.
3. PPP's=Purchasing Power Parities.
4. Gross saving = Gross national disposable income minus Private and Government consumption.
5. Current disbursements = Current expenditure on goods and services plus current transfers and payments of property income.
6. Gold included in reserves is valued at 35 SDR's per ounce. End of year.
7. Including Luxembourg.
8. Included in Belgium.
9. Including non-residential construction.

Sources : Population and Employment: OECD Labour Force Statistics.
GDP, GFCF, and General Government: OECD National Accounts, Vol. 1 and OECD Economic Outlook, Historical Statistics.
Indicators of living standards: Miscellaneous national publications.
Wages and Prices: OECD Main Economic Indicators.
Foreign trade: OECD Monthly Foreign Trade Statistics, series A.
Total official reserves: IMF International Financial Statistics.

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The Economics and Statistics Department of the OECD offers challenging and rewarding opportunities to economists interested in applied policy analysis in an international environment. The Department's concerns extend across the entire field of economic policy analysis, both macroeconomic and microeconomic, and it is also responsible for the collection, processing and dissemination of a wide range of internationally consistent statistics. On the economic side, its main task is to provide, for discussion by committees of senior officials from Member countries, documents and papers dealing with current policy concerns. Within this programme of work, three major responsibilities are:

- To prepare regular surveys of the economies of individual Member countries;
- To issue full twice-yearly reviews of the economic situation and prospects of the OECD countries in the context of world economic trends;
- To analyse specific policy issues in a medium-term context for the OECD as a whole, and to a lesser extent for the non-OECD countries.

The documents prepared for these purposes, together with much of the Department's other economic work and its statistical output, appear in published form in the *OECD Economic Outlook, OECD Economic Surveys, OECD Economic Studies,* the Department's *Working Papers* series, and an extensive list of statistical publications.

The Department maintains a world econometric model, INTERLINK, which plays an important role in the preparation of the policy analyses and twice-yearly projections. The availability of extensive cross-country data bases and good computer resources facilitates comparative empirical analysis, much of which is incorporated into the model.

The Department is made up of about 100 professional economists and statisticians from a variety of backgrounds from all Member countries. Most projects are done by small teams and last from four to eighteen months. Within the Department, ideas and points of view are widely discussed; there is a lively professional interchange; and all professional staff have the opportunity to contribute actively to the programme of work.

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a) Solid competence in using the tools of both microeconomic and macroeconomic theory to answer policy questions. In our experience this requires the equivalent of a PhD in economics or substantial relevant professional experience to compensate for a lower degree.

b) Solid knowledge of economic statistics and quantitative methods; this includes how to identify data, estimate structural relationships, apply and interpret basic techniques of time series analysis, and test hypotheses. It is essential to be able to interpret results sensibly in an economic policy context.

c) A keen interest in and knowledge of policy issues, economic developments and their political/social contexts.

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g) The Department works on a tight time schedule and strict deadlines. Moreover, much of the work in the Department is carried out in small groups of economists. Thus, the ability to work with other economists from a variety of professional backgrounds, and to produce work on time is important.

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