Economic Overview

Recent economic data confirm that domestic demand continues to grow strongly and that this growth is broadly based across industry sectors. Moreover, forward-looking indicators suggest that there is considerable momentum to the pick-up in domestic demand. This should lead to continued strong growth in output and employment over the course of 1997-98, particularly in the more cyclically sensitive industries such as the manufacturing, construction, retail and some service sectors.

Trade data suggest that the slowdown in the Asian economies had a significant impact on export volumes to those economies in the December quarter, particularly in respect of manufacturing and service exports. However, total export volumes seem to have held up reasonably, implying stronger exports to non-Asian markets. In addition, while world prices for Australian commodity exports have fallen in recent months, Australian dollar returns for commodity exporters have increased, reflecting the depreciation of the Australian dollar against major world currencies.

Slower external demand will progressively affect export volumes over the course of 1998. Some further weakness in commodity prices is also likely. This will reduce returns in industries reliant on exports, and particularly the mining and agricultural sectors and, to a lesser extent, the manufacturing sector. Some service producers will also be affected, although service exports form a relatively small proportion of overall service sector output.

In the first section of the Overview international economic conditions are briefly reviewed. The following section looks at recent and prospective economic conditions within an industry framework. Later sections outline recent sectoral employment experience, and briefly discuss developments with respect to wages, prices and the external current account balance.

INTERNATIONAL ECONOMIC CONDITIONS

Economic growth in the major industrial countries (excluding Japan) remained strong in the latter part of 1997, with growth of 3¾ per cent in North America and 2½ per cent in Western Europe. For the year ahead growth in Western Europe is expected to remain steady at 2½ per cent, while growth in the United States should slow towards 2½ per cent. In contrast, some East Asian economies have been severely affected by financial turbulence. This turbulence has detracted from activity in 1997 and will have a fuller impact in 1998, with growth prospects for several economies expected to be negative.

Recent data for the **United States** confirm that growth is continuing at a high momentum, at a rate of around 3¾ per cent. Growth has been driven by strong private consumption and investment spending, and has supported robust employment growth. Despite this level of activity and a tight labour market, there has been little sign to date of inflationary pressure. The economic upswing is into its seventh year and the durability of the growth phase of the cycle has been remarkable. Most forecasters' expectations of a slowing in growth closer to the long term trend rate (around 2½ per cent) have been repeatedly deferred. The combined effects of a significantly stronger currency on US exports and the increased competitiveness of imports from Asia should see a larger detraction from growth from net exports this year. Domestic demand is, nevertheless, expected to remain robust and market forecasts for growth in 1998 have been revised up — from 2 to 2½ per cent over the past 12 months. Without the impact of the Asian crisis, growth in the US economy would likely have remained significantly above its long-run potential, which would have raised significant inflationary concerns. The Asian crisis, therefore, looks like helping to ease the pace of US activity to more sustainable levels.

Western Europe is expected to maintain growth in 1998 similar to that experienced in 1997, around 2½ per cent. Within Europe, however, the United Kingdom economic cycle is out of synchronisation with the Continent. The UK has been growing strongly (3½ per cent in 1997) but there are signs that activity is beginning to slow in response to tighter domestic policy settings and weaker net exports — growth is expected to slow to around 2½ per cent in 1998. The Continental European recoveries on the other hand are strengthening, but to date have been largely dependent upon net exports, and will need to broaden into stronger domestic demand to offset the likely impact of Asia on European exports.

Economic growth in **Japan** stalled in 1997, with growth entirely dependent upon net exports. Private domestic demand remains weak in the face of negative consumer sentiment — exacerbated by a 2 per cent increase in the value added tax on 1 April 1997, and the uncertainty generated by high profile financial institution closures. Industrial production has weakened substantially, and there is also evidence that businesses are finding credit availability difficult, as banks attempt to consolidate their own balance sheets. Growth has slowed from 3.7 per cent in 1996 to an estimated 1 per cent in 1997.

The Japanese Government has responded with a number of policy initiatives — contained in two Budget Statements, both delivered on 25 December 1997 (a supplementary FY1997 Budget and the FY1998 Budget) — aimed at stimulating domestic demand and restoring financial market confidence. The stimulatory measures, equivalent to 1 per cent of GDP (Y5 trillion), consist of tax reductions of Y3 trillion — the cornerstone of which was a one-off income tax cut of Y2 trillion — and additional expenditure of Y2 trillion. These measures are expected to largely have their effect in FY1998. To stabilise the financial sector,

Y30 trillion will be injected into the Deposit Insurance Corporation, directed primarily at depositor protection.

The fiscal measures mentioned above, however, take place against a background of fiscal tightening. This reflects the adjustment path that Japanese public finances are required to follow under the Fiscal Reform legislation recently enacted to reduce the combined central and local government deficit from around 7 per cent of GDP currently to 3 per cent or less by 2003. The FY1997 Budget (announced December 1996) imposed a significant tightening of fiscal policy (equivalent to around 2 per cent of GDP), and the FY1998 Budget (delivered December 1997) continues the contractionary stance. The stimulus contained in the FY1997 supplementary budget (announced December 1997) provided only a partial offset. In recognition of this, there have been indications of a further stimulatory package in coming months.

With domestic demand likely to remain flat, and little or no contribution to growth likely from net exports as a result of depressed regional conditions, recent private sector forecasts suggest little growth for Japan in 1998.

Growth in **ASEAN** economies is expected to weaken further in 1998. **Thailand** and **Indonesia** have been hit hard, with negative growth expected in Thailand. The Indonesian Government has agreed with the International Monetary Fund (IMF) to zero growth and 20 per cent inflation as budget parameters for 1998 — but clear downside risks remain. **Malaysia** introduced a package of measures to deal with the financial instability and to reduce its current account deficit to 3 per cent of GDP. Growth in Malaysia in 1998 is expected to fall to less than half the 7.4 per cent achieved in 1997, and inflation to pick up from 2.9 per cent to around 6 per cent.

Korea has experienced a marked contraction in domestic demand and dislocation in the industrial and traded sectors. In the year ahead, growth is expected to be flat (compared to 5.9 per cent in 1997). Inflation is expected to double in 1998 compared with 4½ per cent in 1997. The current account is expected to move from a deficit equal to 2.0 per cent of GDP in 1997, to a small surplus in 1998.

Growth in **China** is expected to slow from 8.8 per cent to between 7 and 8 per cent in 1998, reflecting some weakening in domestic demand, a build up in inventories, a commercial property overhang in some regions and a slowing in export growth and foreign investment. Inflation is expected to remain low following the decline from 8.3 per cent in 1996 to 3.4 per cent in 1997.

While 1998 looks like seeing a significant deterioration in the performance of many Asian economies, there are some signs that financial market sentiment may be stabilising. Korea, Indonesia and Thailand have agreed to IMF restructuring packages — and Japan seems to be firming in its resolve to tackle the entrenched problems facing its financial sector. The shape and speed of economic recovery in the region will be heavily dependent upon a return of

investor confidence, and this will require a demonstrated commitment to undertaking the necessary structural reforms made evident by this financial crisis.

DOMESTIC ECONOMIC ACTIVITY

The *Mid-Year Economic and Fiscal Outlook 1997-98*, which was released in December last year, outlined revised forecasts for 1997-98 and preliminary forecasts for 1998-99. These forecasts indicated that, while strong growth in domestic demand would provide considerable support for growth over the next eighteen months, the slowdown in Asia will progressively affect growth over the course of 1998. These effects — and the indirect impact of slower growth in sectoral incomes — are likely to constrain GDP growth relative to what it would otherwise have been, particularly in 1998-99, and result in some increase in the current account deficit. The *Mid-Year Economic and Fiscal Outlook 1997-98* concluded that, in the absence of developments in Asia, the momentum of the pick-up in economic activity evident over the course of this financial year would have been maintained into 1998-99. That would have resulted in very strong growth, stronger than forecast for 1997-98. Hence, the preliminary forecast of 3¼ per cent GDP growth in 1998-99 outlined in the *Mid-Year Economic and Fiscal Outlook 1997-98* incorporates a significant impact from events in Asia.

Agriculture

Gross farm product rose strongly in 1996-97, following a sharp rebound in 1995-96, and as a result continued to provide the major impetus to growth in overall primary production. In constant 1989-90 price terms, farm product in 1996-97 reached a record level, primarily due to very large cropping areas and exceptionally high yields across a range of commodities.

The September quarter 1997 National Accounts incorporated preliminary estimates consistent with a modest fall in farm product in 1997-98.[1] This fall reflected both reduced crop areas and expected lower yields, the latter a result of the drier than normal weather conditions throughout much of Eastern Australia associated with an *El Nino* weather pattern. While there were concerns a few months ago that adverse weather conditions could result in a very sharp decline in aggregate farm output, timely rainfall appears to have maintained crop production at above its long-term average level. Nevertheless,

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1 Initial estimates of seasonally adjusted farm product incorporate both observed outcomes (for example, for livestock products) and expected outcomes (for example, for crop production). The seasonal adjustment process involves the equal allocation over the four quarters of the financial year of these expected outcomes. Changes in expectations, as firmer indications become progressively available, are incorporated in successive publications, until such time as an estimate of the actual outcome becomes available.

while crop production in 1997-98 will still be well below the record level of the previous year, its effect on total farm product will be countered by more favourable outcomes for other categories.

A large proportion of agricultural produce is exported, either as unprocessed commodities or simply processed goods.[2] Not surprisingly, there is a close long-run correspondence between movements in farm product and rural exports, though significant variations on a year-to-year basis can result from changes in stock levels. For example, a run-up in stocks resulting from weakening external demand in a situation of high domestic production might, at a later date, be used to help maintain export orders if production eases.

While carryover stocks at the end of 1996-97 were not particularly large, it appears that some decumulation has occurred, helping to buffer and delay the impact of the expected modest decline in farm product in 1997-98 on rural exports. Expressed in constant 1989-90 prices, rural exports rose sharply in the September quarter 1997, despite a fall in seasonally adjusted farm product. Data available for the December quarter on rural export values and associated price indicators suggest that rural export volumes have remained at a relatively high level, despite easing from the September quarter outcome.

The importance of East Asian economies as a destination for Australia's rural commodity exports in 1996-97 is indicated in Chart 1.[3] These economies are particularly important markets for Australia's beef, wool and dairy products, accounting for more than half of total exports in each case. In aggregate, the East Asian economies accounted for at least 41 per cent of rural exports in 1996-97, although this figure is likely to be higher given that some of the commodity exports for which no country details are available would have been destined for markets in East Asia. Other important destinations for agricultural exports are Europe and the Middle East.

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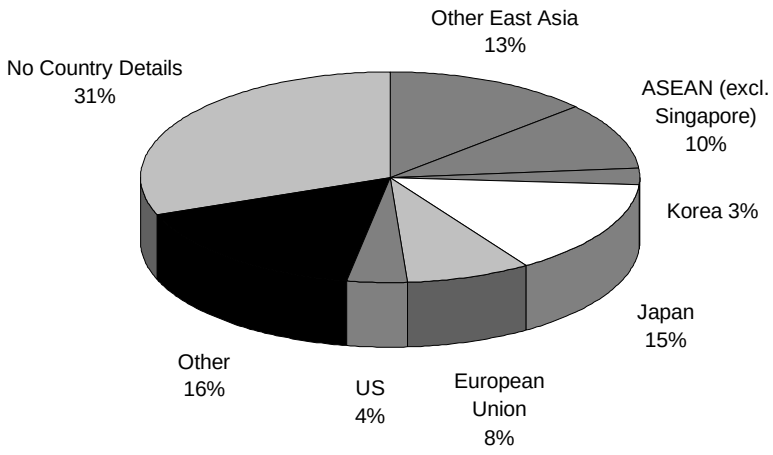
2 The balance of payments commodity specification for rural exports is based on the United Nations Standard International Trade Classification, and accords with this broader definition. However, the Australian Bureau of Statistics (ABS) also publishes export data classified by industry of origin, in which case only that portion of rural exports which involve no element of processing is allocated to agriculture; that portion for which some degree of processing is involved is allocated to manufacturing. For the year ending in the September quarter 1997, for example, a little under 40 per cent of rural exports were designated as originating from the agricultural sector.

3 For reasons of commercial confidentiality the destinations of certain commodities are not published. These commodities, which include major exports such as wheat, dairy products and sugar, are shown in the chart under the group 'no country details'.

Chart 1: Rural Commodity Exports by Destination

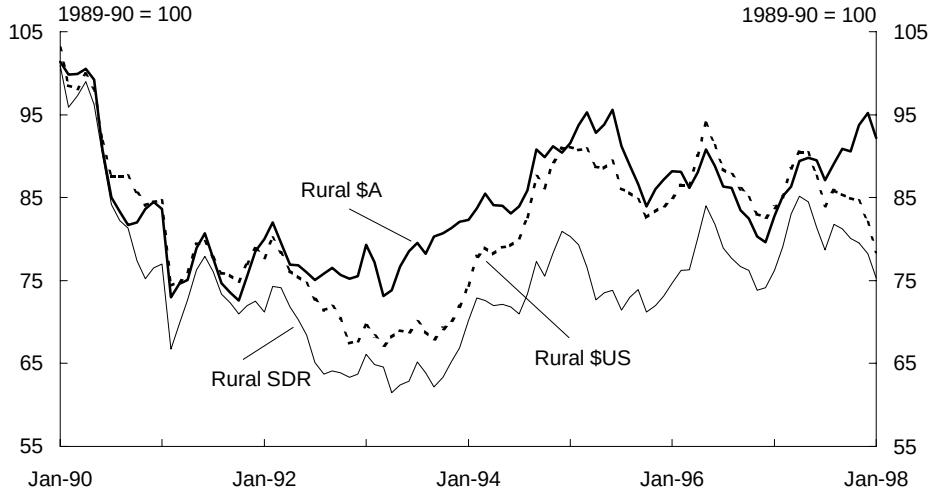


Note: Other East Asia defined as the economies of China, Hong Kong, Singapore and Taiwan.

Notwithstanding the importance of East Asia as a market for Australia's rural exports, it is by no means clear the extent to what rural export volumes will be affected, at least at an aggregate level, by the downturn in some East Asian economies. Possible mitigating factors include: the favourable outlook for some other important markets for Australia's rural exports; the fact that demand for some agricultural exports is not particularly sensitive to variations in income growth in export markets; the possibility that demand for some of Australia's rural commodities as inputs into Asian manufacturing may be bolstered by the latter's improved export competitiveness as a result of exchange rate movements; and the existence of supply difficulties elsewhere in the world which should work to the advantage of Australian suppliers.

Rural commodity prices expressed in Australian dollar terms have risen in a fairly sustained and pronounced fashion since the end of 1996 (see Chart 2). Despite a recent fall as a result of weakness in wool and sugar prices in particular, the Reserve Bank of Australia (RBA) Rural Commodity Prices Index in January 1998 was 11 per cent higher than its level a year earlier, and high relative to historical experience. The importance of the depreciation of the Australian dollar in maintaining export returns for rural producers is highlighted by a comparison of the index expressed in Australian dollar terms with that expressed in either Special Drawing Right (SDR) or US dollar terms, both of which have fallen since mid-1997.

Chart 2: Rural Commodity Prices



Another notable feature of Chart 2 is the current relative strength of rural commodity prices, despite some sharp falls in recent months. For both the US dollar and SDR measures, the fall over the past six months or so has not been large relative to historical experience. For example, while the SDR index has declined by 10 per cent relative to its June quarter 1997 average, the index is still higher than that experienced in the first half of 1995 and the second half of 1996, periods in which expectations of international activity were much stronger than at present.

As noted previously, rural export volumes in the second half of 1997 appear to have held up well in the face of lower domestic production and international developments, with carryover stocks being reduced to support exports. If the international environment does adversely affect demand for Australia's rural exports in coming quarters to a greater extent than expected, the immediate impact (that is, for the remainder of this financial year) is more likely to be in terms of some renewed stock accumulation than reduced production; the overall contribution of the farm sector to aggregate activity is thus unlikely to vary significantly.

Production in 1998-99 will be largely determined by a combination of commercial decisions and weather conditions. Some of those commercial decisions (for example, those relating to winter crop planting intentions) will be made in the relatively near future. To the extent that those decisions are based on recent outcomes relating to Australian dollar export prices and export volumes, the outlook appears to be relatively favourable. Weather conditions might therefore remain the most significant determinant of future activity levels in the rural sector. The Bureau of Meteorology's latest forecasts imply a weakening of *El Nino* related conditions over 1998. However, with sub-soil moisture low and with good rainfall by the end of June 1998 crucial for winter

crop production, the outlook for farm production beyond 1997-98 remains particularly uncertain.

Mining

Despite considerable quarterly volatility, mining output has grown at an average rate of about 4 per cent per annum over the past three years, more than double the rate of growth experienced over the previous three years. Particularly strong mining investment in recent years has resulted in stronger capital stock growth, lifting the potential for this sector to achieve more rapid rates of output growth in the future. Available data suggest that mining investment will remain strong over the remainder of 1997-98. Investment intentions in the ABS Private New Capital expenditure (CAPEX) survey, taken in October / November 1997, suggest mining investment will grow by around 25 per cent in nominal terms this financial year, and the *Delta Electricity and Access Economics Investment Monitor* outlines the range of very large projects underway which are underpinning this growth. Over the longer term, the strong growth in mining productive capacity flowing from this investment would be expected to lead to continued strong growth in exports, given the close relationship between mining export volumes and production — with around 60 per cent of mining production going directly into export sales.[4]

Mining commodity exports are more concentrated on Asian markets than is the case with rural commodities (see Chart 3). This raises the likelihood that mining exports may be more affected in the near term by the downturn in East Asia than is the case for rural commodity exports. The importance of Asian markets for mining exports also raises the possibility that the downturn in their short-term growth prospects may lead to some downward revisions to the very strong investment plans outlined above. However, given that mining investments tend to require long gestation periods and have relatively long payback periods it is not clear to what extent investment intentions will be affected by the prospect of lower short-term returns.

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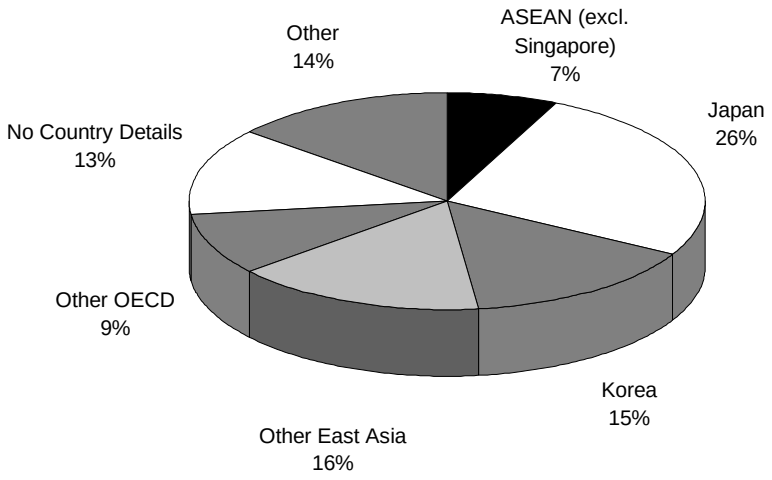
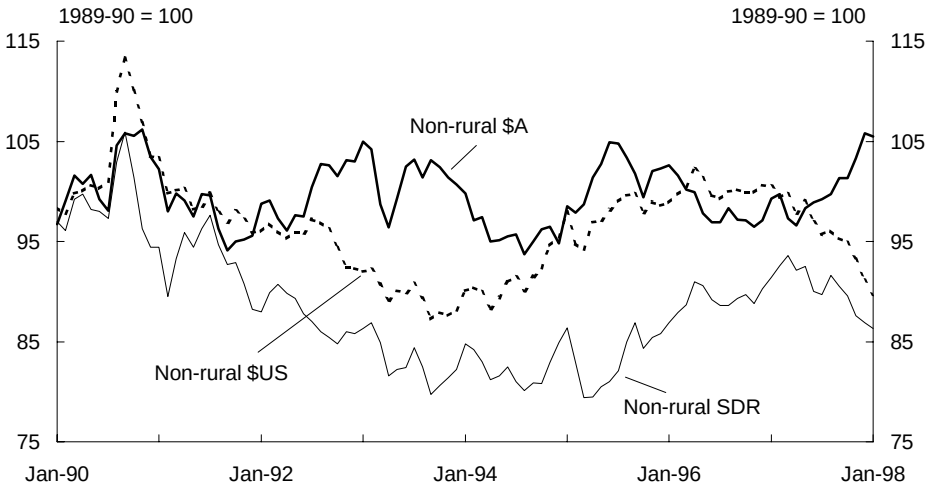
4 This figure was derived using 1991-92 input-output data. When partly processed mineral exports are accounted for the figure would be higher.

Chart 3: Export Destination of Non-Rural Commodities



Movements in Australia's non-rural commodity prices are outlined in Chart 4. Non-rural commodity prices expressed in SDR or US dollars have fallen significantly over the past six months or so. As with rural prices, non-rural commodity prices have risen over this period when expressed in Australian dollar terms, as a result of the depreciation in the Australian dollar. The reduction in demand growth from Asia is an important influence behind the fall in world non-rural commodity prices. However, other factors have also contributed to this decline. For example, the fall in the gold price has accounted for around one-third of the fall in aggregate world prices of Australian commodities, and this has been largely related to anticipation of the behaviour of holders of gold stocks rather than demand influences.

Chart 4: Non-Rural Commodity Prices



Movements in world mineral commodity prices to date, while significant, are well within the range of movements in previous cycles, particularly abstracting from the effect of gold price falls. Recently negotiated bulk commodity prices will be a source of further falls in Australian export prices in world currency terms, with coal prices (for both steaming and coking coal) facing fairly significant price falls offset by an increase in iron ore prices.

As would be expected given the lags involved, there is little evidence to date of the events in Asia impacting on non-rural commodity export volumes. In constant price terms, non-rural commodity exports increased strongly in the September quarter 1997 and preliminary evidence suggests further strong growth occurred in the December quarter. The National Australia Bank's December quarter survey suggests mining production remained strong in the quarter, with a marked improvement in reported trading conditions and exports.

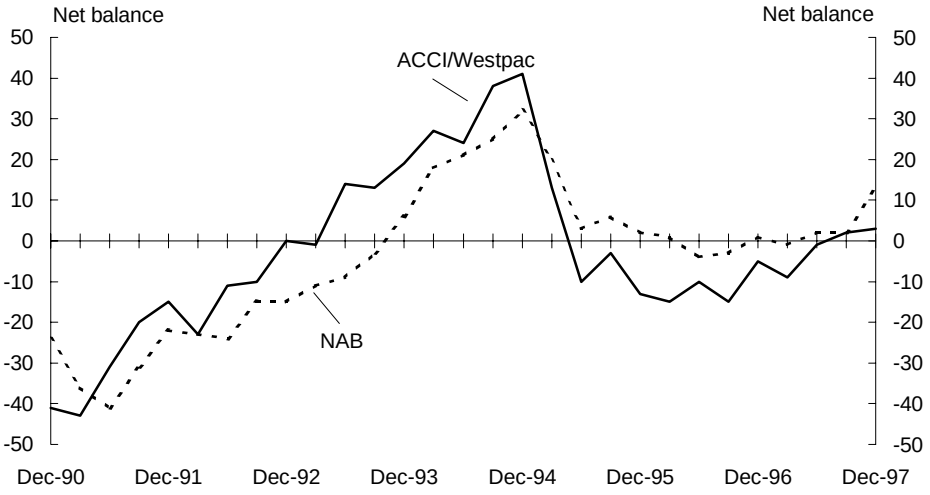
Further impacts on prices and volumes are to be expected as the slowdown in Asian demand flows onto lower levels of world industrial production. As with rural commodities, however, the impact of the slowdown in Asian demand on future export volume growth will be ameliorated by several factors, including the improved competitiveness of Asian economies, and the strength of other important world markets. There also appear to be a number of market-specific factors assisting export volumes — for example, Japanese and Korean steel production plans are still very high and this will provide support for bulk commodity volumes for some time.

Manufacturing

Manufacturing production picked up significantly in the six months to the September quarter 1997, rising in aggregate by 1.9 per cent after falling by 0.8 per cent in the previous six months. The strengthening of private final demand growth during 1997, following a period of temporary weakness over the second half of 1996, significantly increased demand for manufactures. In this stronger demand environment, a sharp contraction in stocks in the March quarter 1997 largely enabled excessive stock-holdings to be eliminated, allowing ongoing strong demand growth to be reflected in rising manufacturing production.

Survey outcomes suggest a continued pick-up in manufacturing production in the December quarter 1997. The Australian Chamber of Commerce and Industry / Westpac Survey of Industrial Trends and the quarterly NAB survey suggest that trading conditions continued to improve in the quarter (see Chart 5). The September quarter ABS Survey of Stocks and Sales contains expectations of manufacturers sales for the December quarter and, using historical realisation ratios, this also suggests manufacturers expected sales to strengthen considerably in the quarter.

Chart 5: Survey Measures of Trading Conditions in the Manufacturing Sector



As outlined in the *Mid-Year Economic and Fiscal Outlook 1997-98*, continued solid growth in domestic demand is expected, which provides a positive outlook for manufacturing production. An important consideration influencing this outlook is the expectation that equipment investment will remain strong over the remainder of 1997-98. Factors supporting a favourable outlook for equipment investment include the high corporate profit share, a high net return on capital stock, a relatively high rate of capacity utilisation and low nominal interest rates. The fourth CAPEX estimate for equipment investment in 1997-98

was over 13 per cent higher than the third estimate taken in July / August 1997 and over 12 per cent higher than the equivalent estimate for 1996-97. These expectations point to very strong growth in equipment investment in 1997-98.

Whether the planned strong growth in plant and equipment investment is realised will depend to a significant extent on whether there is a marked change in business confidence regarding the outlook. In the period ahead the factors which will be impacting on business confidence will be the strength of domestic demand offset, in part, by the uncertainty and adverse effects coming from developments in East Asia. Perhaps reflecting these divergent influences, surveys taken late in 1997 recorded mixed results on business confidence, although manufacturers' perceptions of the outlook over coming quarters remained reasonably firm. Surveys taken after the new year, such as the smaller sample NAB monthly surveys, suggest that business confidence has held up recently.

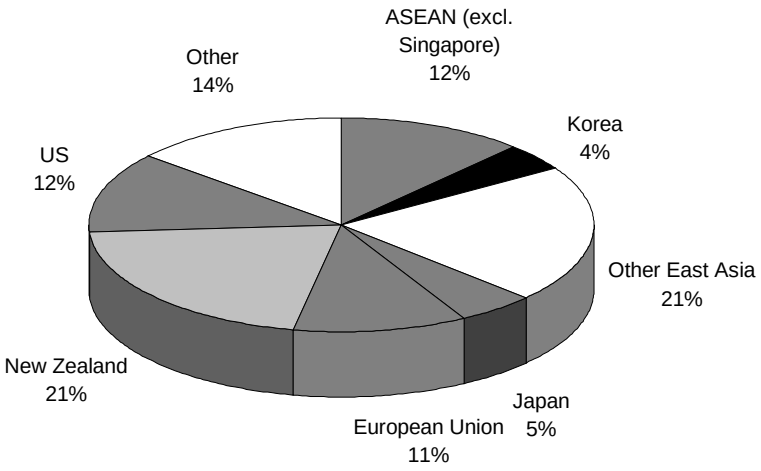
In summary, signs of actual and prospective strength in domestic demand appear to be providing support for business confidence in the face of expectations that slower growth in Asia will restrain domestic growth in the period ahead. If the existing strong investment plans are realised this suggests a substantial rise in plant and equipment investment is in prospect, and this will provide an important source of demand for manufacturing output.

While the bulk of Australia's manufacturing production is directed towards the domestic market, manufactured exports have been increasing over recent years. Consequently developments in export markets will be an important influence on the future course of manufacturing production.

The most rapidly growing segment of manufacturing exports is ETMs. Australia's major export markets for ETMs are New Zealand, the European Union and the United States, with East Asia taking around a third of ETM exports in aggregate (see Chart 6).

While this trade orientation will provide some support for ETM exports in that a large proportion is directed to markets that are continuing to experience relatively strong growth, much of the increase in ETM exports in recent years has arisen from very strong growth (off a low base) to East Asian economies, particularly the ASEAN countries.

Chart 6: Export Destination of Elaborately Transformed Manufactures



In addition to the effect of slowing demand in East Asian markets, Australian ETM exports are likely to lose competitiveness against Asian products as a result of the appreciation of the Australian dollar against the East Asian currencies. However, at the same time our competitiveness will have improved against some other importers into those markets. The combined impact of demand and competitiveness effects could be expected to see a decline in ETM exports to East Asia and, given the nature of ETMs, there may be less scope to easily divert export volumes to alternative markets. In contrast, strong demand growth in some of our major ETM markets and improved competitiveness in these markets should provide a partial offset to declining ETM exports to East Asia.

ETM export volumes grew strongly in the June quarter 1997, although bolstered by the export of an ANZAC frigate to New Zealand. While ETM exports fell in the September quarter 1997, if allowance is made for the impact of the ANZAC frigate on the June quarter results, ETM exports continued to grow strongly in the September quarter. However, ETM export value data suggest volumes fell in the December quarter.

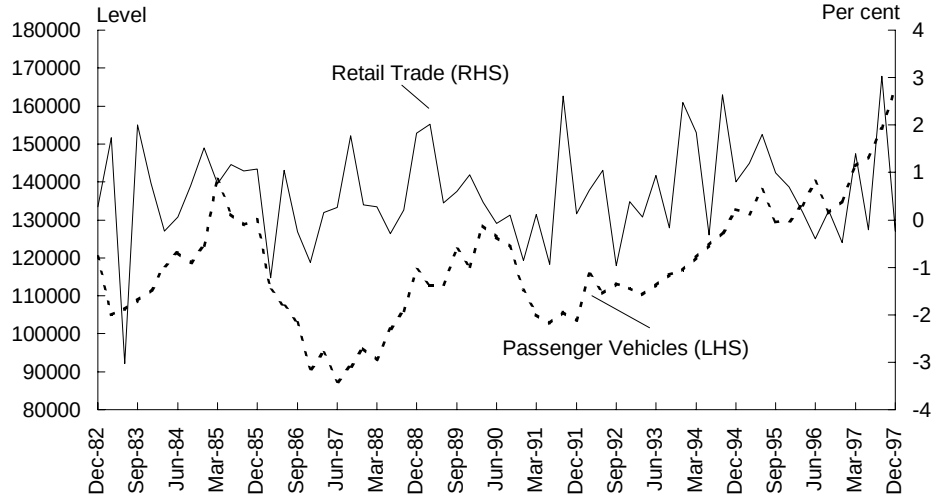
A large segment of the manufacturing sector competes with imports and the depreciation of the Australian dollar against the currencies of countries which supply most of our manufactured imports should provide some stimulus to the sector over and above the effect of strengthening domestic demand. However, some sub-sectors are likely to experience increased competition from imports as prices for manufactured goods from Asian countries fall as a result of very large devaluations of their currencies and attempts to divert product from depressed domestic markets.

Retail and Wholesale

A significant contributor to the resurgence in private final demand in 1997 was consumer spending, and retail trade in particular. Quarterly retail trade outcomes during 1997 were volatile, perhaps in part reflecting seasonal adjustment problems associated with the timing of Easter and mid-year sales. Nevertheless, in constant price terms, retail trade increased by 4 per cent through 1997, after declining by 0.5 per cent through 1996. Expenditure on motor vehicles has also strengthened, with December quarter 1997 passenger motor vehicle registrations 21.8 per cent above levels a year earlier and 16.7 per cent above the previous peak in March 1985.

With motor vehicle registrations continuing to increase but retail trade falling slightly, retail sector output is likely to have been broadly flat in the December quarter 1997 (see Chart 7). However, this follows very strong growth in the September quarter. Consistent with this overall picture of strength, the NAB survey reports a marked improvement in trading conditions for the sector in the December quarter. The NAB and Dun and Bradstreet surveys suggest that retailers' expectations for the March quarter remain firm.

Chart 7: Retail Trade Growth and Passenger Vehicle Registrations



The continued strength in consumer spending forecast in the *Mid-Year Economic and Fiscal Outlook 1997-98* should underpin growth in retail sector activity in coming quarters. A key factor supporting the favourable outlook for consumer spending is the expected ongoing pick-up in employment growth. As outlined in more detail subsequently, there was a strong resurgence in employment growth over the second half of 1997 and forward-looking indicators, such as job vacancies series, point to ongoing strength in the labour market. Also supporting the outlook for consumer spending is the improvement in consumer sentiment, which rose in the December quarter 1997 and again in January 1998.

In particular, concerns about unemployment have eased as a result of improving labour market conditions.

Wholesale industry activity has also strengthened considerably over 1997, reflecting both stronger retail trade and domestic activity in general. This improvement is likely to have continued into the December quarter, with the sector recording strong rises in trading conditions in the NAB survey. Expectations for the March quarter are mixed, with the NAB survey recording continued improvement, while the Dun and Bradstreet survey recorded a fall in expectations, reflecting perhaps perceptions regarding the impact of slower Asian growth on manufacturing exports. Nevertheless, activity in the wholesale sector is largely oriented towards domestic activity, and the strong outlook for domestic demand should support continued growth in the industry.

Construction

Changes in the level of construction activity are largely driven by movements in the level of dwelling investment and in public and private non-residential building and construction investment. Construction activity has risen fairly solidly since around the middle of 1996, with ongoing strength in non-dwelling building and construction investment being complemented by an upturn in dwelling investment.

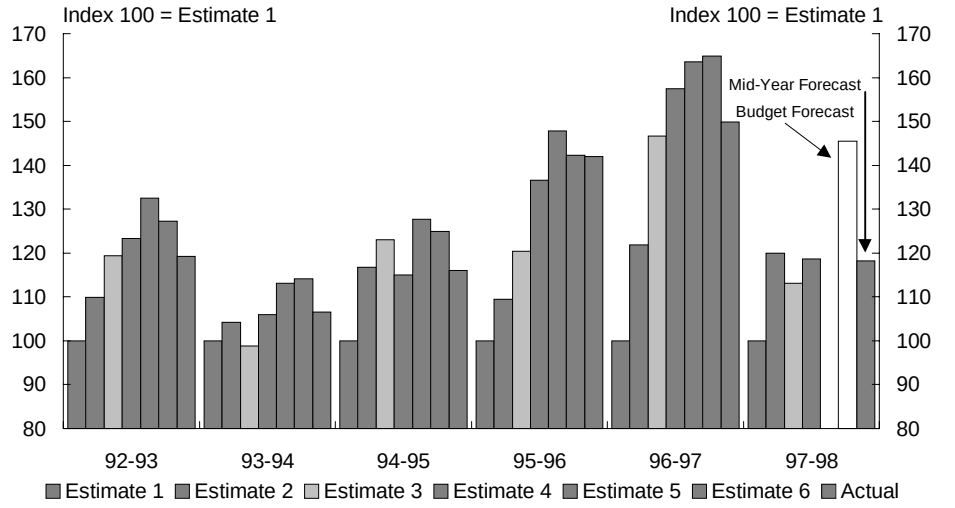
Leading indicators of activity foreshadow a continuation of the housing recovery. Monthly building approvals, although volatile (especially those for medium density dwellings), have strengthened over the second half of 1997 on a trend basis after weakening during the middle of the year. In December 1997 private house approvals reached their highest level in almost three years. Moreover, a solid increase in the average value of dwelling approvals means that the total value of dwelling approvals has increased faster than the number of approvals over the past year. While the trend number of approvals increased by 16.4 per cent in the year to December 1997, the value of approvals increased by 22.9 per cent.

In addition, finance approvals for the construction of new dwellings, which also exhibit monthly volatility, rose to their highest level in almost three years on a trend basis in December 1997. The likelihood of the housing recovery continuing is also supported by the very high level of housing affordability that is a result of low interest rates and low house price inflation.

Private non-residential building and construction investment rose sharply from a recent trough in early 1993 to a recent peak in the September quarter 1996. Although subsequent outcomes have fallen a little, current levels of investment remain high, and not significantly below peaks in the late 1980s. The outlook for non-residential construction investment, however, has become more uncertain over recent months.

The most recent building investment intentions for 1997-98, published in the ABS CAPEX survey undertaken in October/November 1997, recorded an estimate which was 5 per cent higher than the preceding estimate (taken in July/August 1997). However, the most recent estimate was almost 5 per cent lower than the equivalent estimate for 1996-97 and was still below the estimate collected six months earlier (that is, in April/May 1997). This weakening of building investment intentions contributed to the forecast for non-residential building and construction investment being revised down in the *Mid-Year Economic and Fiscal Outlook 1997-98* compared with the Budget forecast.

Chart 8: Non-Residential Building Investment Intentions



Note: 'Budget forecast' is the forecast for 1997-98 contained in the 1997-98 Budget. 'Mid-Year Forecast' is the revised forecast for 1997-98 incorporated in the *Mid-Year Economic and Fiscal Outlook 1997-98.*

In contrast to the weakening in building investors intentions, other indicators of construction investment have remained strong — and arguably have continued to strengthen — raising the possibility of stronger outcomes than currently forecast. Abstracting from some very large individual projects, the value of non-residential building approvals strengthened in the second half of 1997 relative to outcomes in the first half of the year. Furthermore, a number of large projects which are scheduled for approval and commencement in coming months should sustain this strength. Although extremely volatile from month to month, the value of commercial finance commitments for non-residential buildings and structures in the second half of 1997 were at exceptionally high levels by historical standards. In addition, the level of work yet to be done for both building and engineering activity remains at high levels, helping to underpin future levels of construction for some time to come. While the *Delta Electricity and Access Economics Investment Monitor* suggests that the value of investment projects under construction or committed in the manufacturing, transport and communications, mining and power and water sectors fell

slightly in the December quarter, it had nevertheless risen strongly over the past year. In line with earlier discussions in the sections of mining and manufacturing some of this investment may be affected by developments in Asia; nevertheless, the magnitude of investments suggests that non-residential construction will remain firm.

Other Service Industries

The remaining industries in the economy not discussed previously account for around one half of total activity. Reflecting the diversity of this group, growth in activity of these industries tends to be influenced by a range of factors. Variations in the rate of growth of personal consumption expenditure on services (such as health, entertainment and recreation, and financial services) will play a part. Public sector spending on salaries and on some transfer payments will also be important. The services provided by these industries are used as inputs in the activities of other industries, so that developments elsewhere in the Australian economy can be expected to have an interrelated impact upon them. In addition, one of the important structural changes evident since the mid-1980s has been an increasing outward orientation of Australian industry in general, including service providers. This has resulted in stronger growth in exports of services and a more important role for external developments in influencing domestic conditions in the services industries. Other structural changes are also important; for example, the continuing introduction of new products in the telecommunications area is providing an ongoing influence on demand and output.

Following an easing in growth in the services sector during 1996, stronger growth has resumed in more recent quarters. However, the aggregate movement in activity in this sector masks varied performance across individual industries, with some industries more cyclically sensitive than others. The communications industry has experienced continued rapid growth in trend terms over the last two years, as it has for some years, while a number of other service industries have experienced a more pronounced cycle related to movements in components of demand.

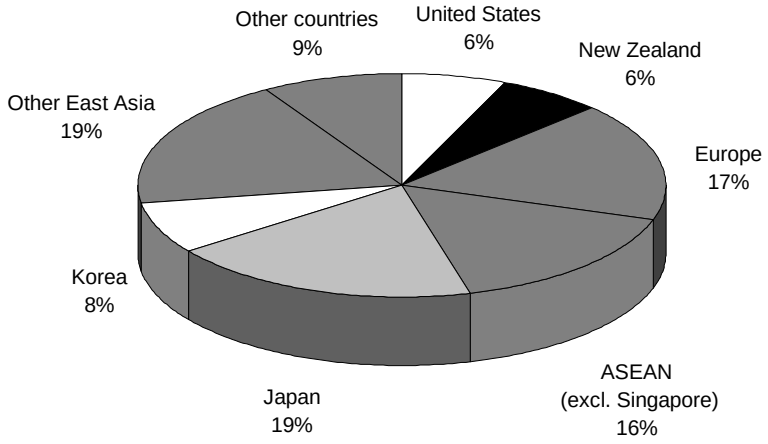
While, as noted above, services exports have become increasingly important over the past decade, they still account for only around 10 per cent of the sector's overall output. Around a quarter of service exports are 'transportation services', being largely related to the volumes of merchandise trade into and out of Australia. The 'Other services exports' category also makes up around a quarter of total service exports. The most significant sub-category is the export of business services, and this has been a rapidly growing area. The most important markets for 'Other services' are North America and Europe, which take around 48 per cent of these exports.

Travel exports make up around one half of total services exports and a substantial proportion of these exports are to the Asian region (see Chart 9). As

outlined in the *Mid-Year Economic and Fiscal Outlook 1997-98*, travel exports are likely to be more affected by changes in incomes in export markets than are many other categories of exports.

Data on the value of services exports suggest that service export volumes fell in the December quarter. A fall in exports of travel services is likely to have contributed to this decline, with the number of overseas visitor arrivals falling in the December quarter. Anecdotal information suggests that further falls in overseas visitor arrivals are likely, particularly from Korea, Indonesia, Thailand and Malaysia. A partial offset may be provided by increased numbers of visitors from North America and Europe, as recent exchange movements have made Australia a relatively more attractive destination for travellers from these areas (but not of course in relation to Asian destinations). These exchange rate effects, as well as stronger economic growth in Australia (domestic tourism is estimated to make up around three quarters of tourism expenditure), can be expected to support tourism related industries.

Chart 9: Travel Exports

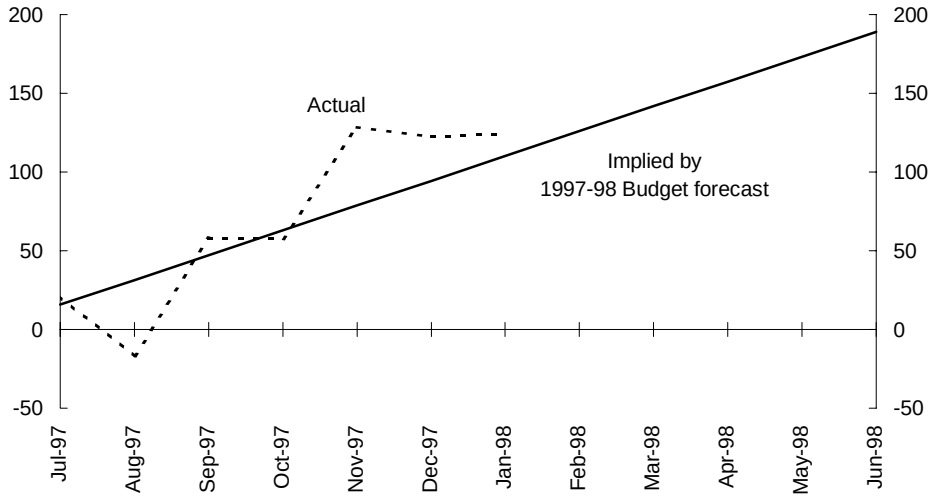


LABOUR MARKET

Trends in aggregate employment were examined in some detail in the Winter 1997 edition of the *Economic Roundup*. In particular, the virtual absence of any employment growth over the first half of 1997 was identified as being a lagged reaction to slower growth in GDP in the second half of 1996 coupled with increasing real wages over the same time period. Conversely, it was suggested that the step-up in GDP growth during the first half of 1997, combined with some moderation in real wage growth, could be expected to result in a resumption of employment growth through 1997-98 in line with the 1997-98 Budget forecast. Stronger employment outcomes have eventuated during the

second half of 1997. As outlined in Chart 10, cumulative employment growth in the seven months to January 1998 is running ahead of that required to satisfy the Budget forecast of 2¼ per cent employment growth in the year to June 1998. The forecast was not revised in the *Mid-Year Economic and Fiscal Outlook 1997-98*.

Chart 10: Cumulative Monthly Employment Growth Required to Meet 1997-98 Budget Forecast



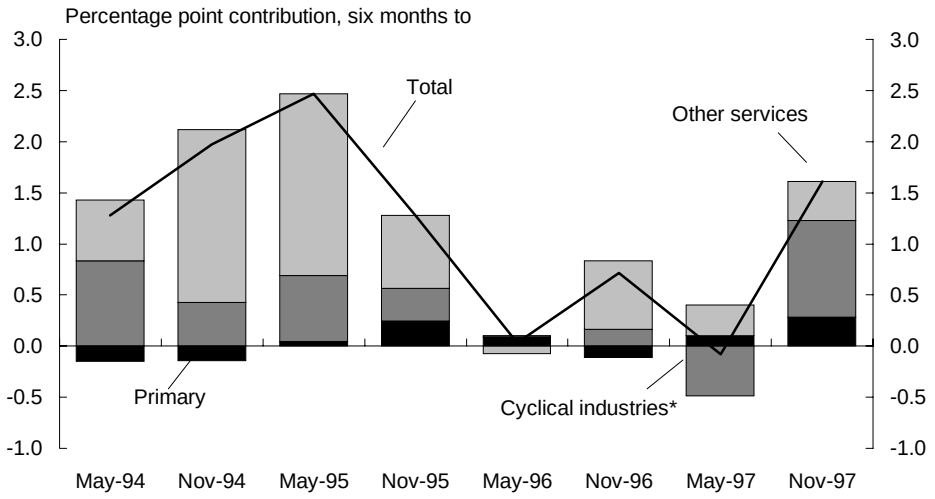
The participation rate was broadly stable over the latter half of 1997 and, as a result, most of the employment growth translated into a sharp fall in the unemployment rate. The extent to which further employment growth translates into further reductions in the unemployment rate will depend on movements in the participation rate as labour market conditions strengthen.

Employment by Industry Sector

Chart 11 shows the contribution to employment growth of three broad categories of industry: primary, including agriculture and mining; 'cyclical', including the manufacturing, construction, retail and wholesale industries; and 'other services', which is made up of all other industries. The improvement in aggregate employment in the second half of 1996 primarily reflected the resumption of growth in 'other services' employment, following declines in the previous six months. In particular, the pick-up in 'other services' employment in the latter part of 1996 was underpinned by an increase in employment in property and business services, accommodation, cafes and restaurants, and health and community services. Employment in the cyclical industries also picked up in the second half of 1996, with falls in wholesale and construction employment being offset by growth in manufacturing and retail employment.

The easing in activity experienced in the second half of 1996 largely reflected slower private sector demand, and hence it is not surprising that the weakness in aggregate employment in the first half of 1997 mainly consisted of a decline in employment in the cyclically sensitive industries; retail and construction employment recorded considerable falls while manufacturing employment was flat and the wholesale sector recorded a small increase. Nevertheless, ongoing growth in 'other services' employment and a resumed increase in primary sector employment offset these declines to leave aggregate employment broadly unchanged over this period.

Chart 11: Contributions to Employment Growth



Note: * Includes manufacturing, retail, wholesale and construction.

The strong growth in aggregate employment in the six months to November 1997 reflected a positive contribution across all broad industry sectors. The rise in employment in the cyclical industries consisted mainly of very strong growth in retail and construction employment, reflecting a lagged response to the strong pick-up in output experienced by these sectors over 1997. In contrast, wholesale employment grew only slightly while manufacturing employment remained flat, in line with the less significant growth in manufacturing output to the September quarter 1997 compared with the retail and construction sectors. The increased contribution to total employment growth from the primary sector is largely due to a considerable rise in agricultural employment, possibly in response to high levels of farm production and incomes. Services sector employment continued to make a similar contribution to overall employment growth as in the previous period.

At the aggregate level, the outlook for employment remains firm. Employment growth is likely to remain broadly based across sectors, reflecting continued strong growth in most components of domestic demand. Job vacancies remain at high levels, supporting the near-term outlook for employment.

WAGES AND PRICES

Average weekly ordinary time earnings (AWOTE) growth has been volatile in recent quarters, rising by 0.4 per cent in the December quarter following rises of 0.3 and 1.9 per cent in the June and September quarters respectively. Nevertheless, over the last six quarters, AWOTE growth has averaged around 1 per cent per quarter, consistent with broadly stable annual growth of around 4 per cent (see article in this Roundup 'Interpreting Wage Measures').

Nominal unit labour costs have grown more moderately than average earnings reflecting improvements in labour productivity. This, combined with the remaining effects of declining import prices during 1996-97, has contributed to the very low rates of underlying inflation experienced in recent quarters. Underlying inflation was 0.3 per cent in the December quarter 1997 or 1.4 per cent in through-the-year terms — the lowest rate since the series commenced in 1972.

In the period ahead both these influences will unwind somewhat. Stronger growth in nominal unit labour costs is expected to exert some upward pressure on underlying inflation as productivity growth slows cyclically in the context of a strengthening labour market. Wages growth is expected to be broadly stable as the impact of lower inflation expectations (which appear to have contributed to recent declines in wage increases reached in new enterprise bargaining agreements) are broadly offset by upward pressure on wages arising from stronger employment growth. In addition to stronger growth in nominal unit labour costs, rises in import prices in the December quarter as a result of the depreciation of the Australian dollar against major world currencies will gradually flow through to retail prices. The impact of these factors on underlying inflation will continue to be tempered by competitive pressures in the economy resulting from structural change.

THE CURRENT ACCOUNT

As indicated in the *Mid-Year Economic and Fiscal Outlook 1997-98*, the current account deficit is expected to increase in both dollar terms and as a share of GDP in 1997-98. This is the outcome of strengthening domestic demand — which will lead to firm import growth — and weaker external conditions — which are likely to lead to a weakening of export volumes. Export prices are expected to weaken during the year as the current strong Australian dollar commodity prices are unwound.

Recent trade data support this outlook. The December quarter 1997 balance on goods and services trade is estimated to be a deficit of around $550 million (current price, seasonally adjusted) and compares with a slight surplus in the previous quarter of almost $300 million (excluding the impact of the RBA gold sales). The turnaround reflected a deterioration in the balance on goods and services in the month of December which, in turn, reflected strong

growth in imports. Much of the growth in the value of imports in the quarter is likely to be due to stronger import prices, resulting from the depreciation in the Australian dollar late in 1997. Combining this price information with the value of imports allows an approximate estimate to be made of changes in import volumes in the quarter: this suggests import volumes also increased in the December quarter, which is indicative of the overall strength of domestic demand. In line with the discussion in earlier sections, some weakening in the volume of exports of goods and services is also likely to have contributed to the deterioration in the balance on goods and services in the December quarter.

The Wholesale Sales Tax: Sixty-Eight Years On

The principal indirect tax in Australia is the wholesale sales tax (WST). The WST was introduced in 1930 as a general measure to raise revenue during the Depression.

This article briefly discusses the principles that should guide the design of a good tax system and then highlights some features of the current WST that are inconsistent with these principles. The article draws on some historical information to demonstrate that the original motivations for the design of the tax may no longer be relevant.

PRINCIPLES OF GOOD INDIRECT TAXES

The purpose of most taxes is to raise sufficient revenue to fund government services and undertake redistributive activity.[1] However, in raising revenue other design features must also be taken into account. The most important factors to consider are efficiency, equity and administrative simplicity.[2]

Except in those rare cases of taxes being used successfully to correct instances of market failure, an efficient tax system will not distort the allocation of resources. Decisions are distorted when the **relative** attractiveness of an activity changes. Furthermore, the greater the change in the relative attractiveness of an activity, then the greater the efficiency cost.[3] In the context of indirect taxes, the larger the

1 There is also a class of corrective (Pigouvian) taxes that are intended to internalise social costs. The discussion in the paper does not cover these taxes. This is consistent with the view that the WST is essentially a general revenue raising tax. Given the genesis of multiple rates within the WST this is not an un-controversial assertion, though it would certainly not be possible to explain the multiplicity of rates by reference to Pigouvian principles.

2 Revenue adequacy, efficiency and equity are generally considered to be the main design issues for taxes. However, there are other dimensions that should be considered in a more complete analysis. For example, vertical fiscal imbalance considerations may be important when considering the overall design of the tax system.

3 In fact, it can be demonstrated that the efficiency cost increases more than proportionally with the tax rate. For example a doubling of a tax rate will lead to a greater than doubling of the efficiency cost.

changes in relative prices caused by the tax, then the greater the distortions and efficiency costs.[4]

A good tax will be fair and equitable. Equity has two dimensions:

- horizontal equity, which means that people in similar circumstances should be treated similarly; and
- vertical equity, which means that people in different situations should be treated differently, with those who are better off bearing a greater share of the tax burden.[5]

A good tax system should also be simple and easy to comply with. There are three dimensions to simplicity:

- the tax should be simple so that taxpayers do not waste resources complying with the tax;
- the tax should be simple for the revenue authorities to administer so that resources are not diverted from more productive uses; and
- taxpayers should be able to calculate with certainty the impact of the tax.

It is rarely possible to simultaneously accommodate all these design principles in a single tax. In practice, a balance must be struck between often competing objectives. The structure of a particular tax often reflects the weight given to each of these design features at the time of introduction or amendment. In extreme circumstances many of the key design features may be virtually ignored in order to target the most important dimension at the time.

The tax and expenditure systems should also be considered as a whole when forming a judgement on the desirability of a particular tax. For example, some elements of the tax system may be vertically inequitable, but this may be acceptable if other elements are progressive and the tax in question has a large and stable revenue capacity.

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4 Two factors need to be considered: the level of taxes and the dispersion of the rates. The higher the rates and the greater the dispersion, then, in general, the greater the efficiency cost. In special cases this general rule may not be correct. For example, there may be a theoretical case where varying rates on different goods can be justified on purely efficiency grounds. However, whilst these cases may exist in theory, the data required to undertake 'optimal taxation' is rarely available, and pursuing optimal tax policies creates incentives for unproductive rent-seeking behaviour.

5 Determining an appropriate measure of well-being is not straightforward. This paper implicitly uses income as a measure of well-being.

PROBLEMS OF THE WHOLESALE SALES TAX

The WST has five fundamental flaws. First, the tax is levied on a narrow base. Second, the tax is levied at multiple rates. Third, the tax is levied at the wholesale level. Fourth, the tax is complex and administratively cumbersome. Fifth, the tax imposes an arbitrary and hidden tax on business, including exports.

The Narrow Base of the Wholesale Sales Tax

The conceptual base of the WST is domestic consumption.[6] A completely broad base would tax all forms of final domestic consumption expenditure.

However, the actual base of the WST is much narrower as services are not directly taxed. In 1930, when the tax was introduced, this did not pose a major problem as a much smaller proportion of economic activity was taken up by services. However, services now make up almost 70 per cent of private final consumption expenditure. The base is further narrowed by the fact that many goods and institutions are also exempt from the WST. This means that a much higher rate is required on the goods that are directly taxed in order to raise an equivalent level of revenue.

Although services are not directly taxed they are indirectly taxed, as many business inputs are subject to WST. However, the effective tax rate on services is lower than that applying to most goods as the labour component is not subject to sales tax.[7] In general, the effective tax rate on goods and services varies depending on the composition of inputs (which themselves face varying tax treatments).

- Therefore, even if the WST were a single rate tax there would be widely divergent effective tax rates on final consumption.[8]

The narrow base of the WST means that quite high rates are required to raise sufficient revenue. As the proportion of services in the economy continues to grow, the rate required to raise the same revenue also increases. When the WST was introduced the rate of tax was 2.5 per cent. The current 'general rate' is 22 per cent and the highest rate is 45 per cent.

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6 The WST is the closest tax in Australia to a tax on domestic consumption. Whilst, as noted below, the tax is levied on a number of business inputs, these tend to be inputs to services that do not face output taxes. As such, input taxation translates into a concessional rate of tax on the consumption of services.

7 However, some services will bear a higher effective tax rate than some goods. For example, some services may have a low labour component and be produced with goods subject to high rates of WST whilst some goods are exempt from WST.

8 For example, Treasury estimates that effective tax rate on private final consumption expenditure is 1.88 per cent for communications services, compared with 11.91 per cent for electronic equipment.

The narrow base with different effective tax rates is not consistent with accepted tax design principles.

- The narrow base reduces the amount of revenue that can be raised without the need for prohibitively high rates.
- Differences in effective tax rates lead to distorted price signals. As services are more lightly taxed, we would expect that investment will be biased towards service industries and away from the taxable goods sector. As this investment is based on distorted prices and not underlying fundamentals, the quality of investment may be compromised with adverse implications for growth and employment.
  - Divergent tax treatments lead to inefficiencies.[9] Furthermore, as the narrow base leads to higher rates to collect sufficient revenue, the magnitude of the rate dispersion is higher than it would need to be with a broader base.
- The different effective tax rates are horizontally inequitable as individuals with the same capacity to pay will bear different amounts of tax depending on their individual tastes and preferences.
- The existence of exemptions and multiple rates leads to classification problems that add complexity and increase administration and compliance costs.

Multiple Rates of Wholesale Sales Tax

The WST taxes different goods at different rates. Some goods are tax exempt, others are taxed at 12 per cent, 22 per cent, 32 per cent, 37 per cent, 41 per cent and 45 per cent. Multiple rates were first introduced in 1940 as a war-time measure to encourage resources to flow to 'essential' war-related activities. Goods were classed according to the standards of the time. Subsequent classifications and re-classifications have also reflected the values that prevailed at the time of classification. Many of these judgements no longer appear appropriate given the rapid changes in technology and consumption patterns. For example, radios, watches, and tape recorders are currently taxed at the 32 per cent rate.

Box 1 gives some quotations from the Parliamentary debates surrounding the introduction of multiple rates. It is clear from these quotations that the introduction of multiple rates was a response to the specific circumstances of the war. Overall revenue needs were high and there was a high priority placed on channelling resources into war-related activities. It is also important to note that differential rates were established not to tax 'luxuries' more heavily, but to channel resources into more 'essential' areas in time of war.

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9 See the next section for more detail.

Box 1: Comments on Multiple Rates

'In commending the Bill (to amend the *Sales Tax* (Exemptions and Classification) *Act*)) to the favourable reception of honourable members, I would urge that in their consideration of the individual items comprising the respective schedules, they do not lose sight of the fact that what would be a proposal not to be contemplated in times of peace becomes an inescapable necessity in time of war.'

Mr Fadden MP, Treasurer, 21 November 1940

'Proposals such as these would not be submitted in times of peace.'

Senator McBride, 12 December 1940

'In my budget speech, I expressed the view that difficulties would be encountered with the imposition of differential rates of sales tax. This procedure will, I am sure, be a bugbear to small business people.'

Mr Duncan-Hughes MP, Member for Wakefield, 10 December 1940

'In the circumstances, I must ask honourable members to have regard to the fact that the two main purposes for which this Bill has been introduced are: First, the raising of revenue; and secondly, the raising of it quickly. In the extraordinary circumstances in which the country finds itself, this course is essential to our safety.'

'The sales tax was introduced originally in order to meet the unforseen circumstances of the depression. This Government has now found it necessary to introduce a differential rate of tax, and also to vary certain principles of the tax, in order to meet the extraordinary cost of the war in which we are now involved.'

'The items included in the 15 per cent category are not necessarily luxury goods, though they are of a less essential nature than those included in the 10 per cent category. They are, if not non-essential in time of war, at least less essential than the items included in the 10 per cent rate.'

Mr Fadden MP, Treasurer, 10 December 1940

Multiple rates lead to enormous complexity in the system. This increases the amount of resources that must be devoted by both business and the Australian Taxation Office (ATO) to ensure that goods are correctly classified. Many distinctions appear arbitrary, require fine judgements, or provide enormous scope for avoidance and evasion. Many tests used to classify goods are difficult to enforce. For example, goods are often classified on the basis that they are 'intended for the use' in a particular activity. This can be very difficult to enforce, particularly where the 'intention' can alter over time. Another common test used to classify goods is one where a judgement is made as to what a good is 'principally marketed' as being. This test is open to abuse

through repackaging or altering marketing campaigns to reduce the tax that will be paid.

The complexity associated with multiple rates can also lead to confusion and misunderstanding concerning the application of the tax. In some cases consumers will not realise that they are bearing hidden tax. In others they may believe they are paying tax when in fact the items they are purchasing are exempt. This lack of clarity reduces the transparency of the tax.

- For example, tampons and sanitary pads are exempt from sales tax under Item 92 of the Sales Tax (Exemptions and Classifications) Act, yet the Government continues to receive representations from concerned individuals that they are subject to the 'luxury' rate of tax. Tampons and sanitary pads have been specifically exempted from WST since 13 October 1950. Alternatively, many people are unaware that foods such as biscuits and muesli bars bear WST.

A number of examples illustrate the arbitrariness that is inevitable when multiple rate classifications exist. Soft drinks are taxed at the general rate of 22 per cent whilst fruit juice that has at least 25 per cent fruit juice is taxed at the concessional rate of 12 per cent. Tea and coffee are exempt from WST. Household carpets are taxed at 12 per cent whereas carpets for business are taxed at 22 per cent. Toothbrushes are exempt but toothpaste is taxable at 22 per cent.

- Interestingly the toothbrush/toothpaste distinction, as well as a number of other anomalies, were commented on in the debates surrounding the introduction of multiple rates. However, no member was prepared to vote against the Bill due to a cross party agreement to allow passage in order to quickly raise revenue for the Second World War.

There are also many examples of cases where the original reason for an exemption may no longer be relevant. However, exemptions are rarely withdrawn after their introduction. Box 2 provides an example of an exemption which was introduced for reasons that no longer appear as relevant today.

Box 2: The Exemption for Ice

Item 175 of the Sales Tax (Exemptions and Classifications) Act provides an exemption for ice and dry ice. The exemption was first introduced on 13 October 1950. The then Treasurer, Mr Fadden MP, noted in the Second Reading Speech that the:

'...exemption of ice is in line with the fact that sales tax is not payable in respect of electricity, gas and kerosene, which are used in refrigerators for the same purpose'.

The issue of the inequity between the taxation of ice and refrigerators was raised in Parliament almost 10 years earlier by the then Deputy Leader of the Opposition, Mr Forde MP:

'...ice which protects food is subject to the tax. This imposition will place another burden upon workers, because they purchase large quantities of ice. Persons in receipt of moderate and high incomes have refrigerators'.

Multiple rates also tend to distort business decisions. Businesses move to produce a greater proportion of low taxed items rather than making decisions based on underlying fundamentals. These distorted decisions adversely affect Australia's long-term economic performance by diverting investment from potentially more productive areas.

Multiple rates are also horizontally inequitable as individuals pay different levels of tax depending on the particular goods that they consume. For example, coffee drinkers pay less tax on their beverages than those who prefer fruit juices.

Multiple rates are sometimes defended on vertical equity grounds as many perceive that they tax 'luxuries' more heavily than 'necessities'. However, it is very difficult to robustly define 'luxuries' and 'necessities'. In general, it can be very difficult to define classes of goods that are consumed disproportionately by different income groups. For example, 'food' is a category that includes caviar and rice. 'Clothing' would include both inexpensive singlets and designer suits. There is often far greater variation within categories of goods than between categories of goods.

An alternative approach to differentially taxing categories of goods would be to attempt to specify and tax differently 'expensive' and 'inexpensive' goods in a particular category. However, even if an appropriate boundary can be defined (which reflects the barrier between items within the category purchased by different income groups) it can be very difficult to effectively enforce the boundary as businesses will have some scope to unbundle products to keep them below the threshold.

Furthermore, what may be a luxury (or be purchased disproportionately by high income groups) can evolve over time. For example, as noted above, one of the reasons for the exemption of ice was to exempt a good that at the time was disproportionately consumed by the less well-off. This motivation no longer appears relevant given the proliferation of refrigerators.

- In essence, indirect taxes are not well suited to targeting vertical equity objectives as there is often a poor correlation between income status and purchasing patterns.

Finally, one of the consequences of multiple rates is that they lead to constant pressures for further changes in the base as there will always be arguments for 'fair' treatment with similar products. Individuals and organisations have an incentive to devote resources to lobbying for re-classification. These resources could be allocated to more productive activities in the economy. As a result, the resources devoted to lobbying activity may represent a pure social loss.

The Point of Taxation of the Wholesale Sales Tax

Wholesale sales tax is paid on the value of the good at the last wholesale transaction. This means that effective tax rates vary depending on the value of the retail margin. The higher the retail margin the lower the effective tax rate at the retail level. As a result, some businesses can structure their affairs to reduce the effective tax rate on their products by shifting value into the retail margin.

Taxing at the wholesale level may have made sense in 1930. In 1930 most goods passed through a relatively simple and uniform chain, all the way to the final consumer. A manufacturer would sell product to a legally separate wholesaler who would then sell to a legally separate retailer. Taxing at the wholesale level reduced administrative costs as there were far fewer wholesalers than retailers.

However, even by 1940 the ability of firms to shift value up the production/distribution chain was already a cause for concern. A good illustration is given by Mr Blackburn MP, the member for Bourke in 1940. At the time differential rates were introduced with special arrangements for boots.[10] Boots above a wholesale value of 15 shillings were to be taxed, whilst boots below a wholelsale value of 15 shillings were exempt from WST.

> 'In this trade there are some persons who are both manufacturers and retail sellers of footwear. The proprietor of Ezywalkin Proprietary Limited is one of them. He operates under several company names, and manufactures several different products, which he sells to the public through retail shops. There is nothing to prevent him — though he might be too scrupulous to do so — from evading the sales tax by writing down

10 The special arrangement was an attempt to address vertical equity concerns. However, the measure was controversial partly because slippers were not extended any exemption. At the time slippers were commonly worn as a cheap substitute for more robust footwear.

to below 15s a pair the price at which he invoices his products to himself in various incarnations.'

This is a dramatic example of value-shifting leading to a reduction in the amount of tax paid. In most cases shifting value does not completely evade payment of the tax. However, shifting value does reduce tax in proportion to the value that is shifted to the retail level. Allowing tax to be avoided may lead to higher rates which will be borne by those who do not have the ability to undertake similar behaviour.

Today's economy is far more complicated. In many cases manufacture, wholesaling and retailing are all vertically integrated in one company. Complex agency arrangements may mean that it is difficult, even conceptually, to identify the last wholesale transaction. Manufacturers often go direct to the public rather than going through intermediaries. The development of electronic commerce is making this approach more cost effective every day.

The taxpayer is forced to estimate the 'notional' value of the last wholesale sale when no such sale occurs. This estimate must be defensible before the ATO, significantly increasing the administrative complexity of the tax. For example, a recent ATO ruling gave 23 possible ways of calculating the appropriate value for sales tax depending on the specific circumstances.[11] These approaches were intended to give taxpayers guidance in determining the appropriate values. However, the ruling has not completely eliminated additional complexity as taxpayers may still devise their own methods provided they are prepared to document and defend their decisions.

Such estimation, and the ability to shift items out of the wholesale price, provides enormous scope for minimising the tax paid. Often large businesses have the resources and a greater incentive to structure their arrangements to minimise the tax paid. This can place small businesses at an unfair competitive disadvantage with respect to large businesses. For example, large businesses can structure their affairs to move freight and marketing costs beyond the wholesale level.

Administrative Complexity

The examples given above illustrate the administrative complexity of the WST. In addition to the difficulties caused by exemptions, multiple rates and taxing at the wholesale level, there are also problems associated with the need to determine the end-use of particular goods.

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11 The ruling (SST6) provided 23 'safe harbours' that could be used by taxpayers. Some of these dealt with arm's-length transactions where actual wholesale prices exist.

The WST only applies at one point — the point of final wholesale sale (or its deemed equivalent). Businesses that buy goods earlier in the chain can be exempted from paying WST if they can 'quote' a registration number. This means that businesses selling goods must distinguish between different types of buyers, keep records that will satisfy an audit, and maintain systems that will enable identical goods to be charged for at different prices. This increases administration costs and the scope for avoidance and evasion.

There are also exemptions that only apply when goods are used by a particular group. These groups also need to be identified by exemption declarations. The scope for avoidance and evasion is significant as it can be very difficult to trace the use of goods after they have been purchased by a consumer. This is unfair on those who comply with the tax and either reduces the revenue available for funding necessary government services, or leads to higher rates than would otherwise be necessary.

Hidden Tax on Exports

The WST has many exemptions that are conditional on how the good is used. Many of these exemptions are an *ad hoc* attempt to remove tax on business inputs. However, these attempts have not been very successful. It has been estimated that approximately half of WST revenue is raised on goods used as business inputs.

For example, an Australian business will pay WST on a computer that it buys to do the accounts and a car that it uses to run deliveries. There is no mechanism to refund the tax they have paid. The tax paid on the computers and cars will drive up the price at which they can produce their product which can make their exports less internationally competitive.[12]

SUMMARY AND CONCLUSION

The WST does not measure up well against key tax design features.

- The narrow base has led to an erosion of revenue that has only been curbed by significant rate increases and *ad hoc* revenue protection measures.
- The narrow base and multiple rates result in significant horizontal inequities as those with similar incomes bear different tax burdens depending on their tastes and preferences.

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12 The precise impact on international competitiveness depends on any movements in the nominal exchange rate. Ultimately, if removal of the WST does not lead to a change in the saving-investment imbalance, then we would expect that the nominal exchange rate would adjust to counteract the removal of WST. However, even if this were to occur, there would be efficiency benefits in removing distortions between activities in the tradeable goods sector.

- It is not clear that multiple rates and exemptions lead to better vertical equity outcomes as classifications become quickly outdated and it is very hard to consistently identify goods disproportionately consumed by particular income groupings.
- The high and differentiated rates distort business and individual decisions which may reduce the overall productivity of the economy.
- The tax is complex and difficult to both enforce and comply with. This increases the resources that must be tied up in the ATO and in businesses who must comply with the tax.

The WST performs badly against standard design criteria partly because it was tailored to meet special circumstances that no longer apply. In 1930, during the Depression, and in 1940, during the war, the overwhelming consideration was to raise revenue. Other design principles were compromised in deference to this objective. Ironically, developments in the economy have undermined the WST as a robust source of revenue. Therefore, the WST does not rate well, even when assessed in terms of the one criterion that dominated its design at introduction. Almost 70 years on it is appropriate to consider replacing the WST with a tax better suited to Australia's current and prospective needs.

Interpreting Wage Measures

This article examines available measures of wages and reviews their suitability for assessing wages growth. A difficulty with assessing wages growth in recent years has been the divergence between the various measures. The assessment is that the current range of wage measures is not well suited to measuring wages growth because the measures were constructed for other purposes. The article notes that the introduction of the Wage Cost Index by the Australian Bureau of Statistics will provide measures specifically designed for assessing growth in wages.

INTRODUCTION

Growth in labour income has important implications for disposable income, consumption and GDP growth. Income growth that reflects increased wage rates (ie the price of labour) may increase unit labour costs with consequent implications for inflation and employment.

- When considering the implications of earnings growth for inflation, it is important to distinguish between increases in labour income that reflect increased hours of work or workforce changes, such as increased employment of skilled staff, from those that purely reflect changes in wage rates, since the former would be associated with higher output and so would not necessarily add to unit labour costs.
- While it is common to focus on wages as a key business cost, non-wage costs have grown in significance in recent years in part reflecting the introduction of the Superannuation Guarantee. Accordingly, information on both wage and non-wage costs are relevant for assessing growth in total business labour costs.

In recent times, there has been an increased emphasis by commentators on quarterly movements in average earnings for assessing wages growth and drawing conclusions on the implications for policy settings. This article reviews the suitability of the current range of wage measures for assessing movements in wage rates over time.

Trends in different wage measures have diverged in recent years, which has complicated the assessment of wages growth. In discussing these trends, differences in the scope, coverage and construction of the measures are discussed. The development of a set of labour cost indexes by the Australian Bureau of Statistics (ABS) to address many of the problems with existing measures is also discussed. A wage cost index will be released for the first time

in March 1998 while a broader index, taking account of non-wage costs, is scheduled for release in 1999.

WAGE MEASURES

The ABS currently publishes three main measures of non-farm average earnings each quarter:

- average weekly earnings (AWE);
- average weekly ordinary time earnings for full-time adults (AWOTE); and
- average earnings, national accounts basis (AENA).

The first two measures are derived from the Average Weekly Earnings (AWE) Survey while the third is derived from the Survey of Employment and Earnings (SEE) and the Labour Force Survey (LFS).

Measures of average earnings in the AWE survey and national accounts have been developed for different purposes.

The AWE survey was developed primarily to provide an indication of the *level* of average weekly earnings. Estimates of average weekly earnings (AWOTE and AWE) are derived by dividing weekly earnings by the number of employees (both of which are collected as part of the AWE survey). The survey enables comparisons of the level of weekly earnings by State, industry, sector (private / public) and sex.

AENA is derived as a by-product of statistics collected to measure the level of income received by each factor of production (ie the components of the income based measure of GDP). The factor share of labour is measured by wages, salaries and supplements.

AENA is calculated by dividing wages, salaries and supplements (WSS) by the number of wage and salary earners obtained from the SEE and the LFS. AENA is similar to AWE and AWOTE in that it measures the level of earnings in a given period; however, only a single measure can be derived from the national accounts, thus preventing its use for sectoral or industry comparisons.

The construction of average earnings measures by dividing the total wage bill by the number of employees means that the measures will reflect both changes in wage rates as well as changes in the composition of the workforce. Workforce composition effects include changes in the amount of overtime worked, the number of part-time workers and the employment of low or high skilled workers. As discussed below these compositional changes affect the reliability of the measures for assessing growth in wage rates.

Scope

Significant differences in the definition of earnings exist between each of the three measures. AWOTE measures ordinary time earnings (gross earnings attributable to award, standard or agreed hours of work), whereas AWE also takes account of overtime earnings. AENA, the broadest of the three measures, includes both wage (ordinary time and overtime) and a range of non-wage benefits (termination and redundancy payments, superannuation contributions, workers' compensation payments and fringe benefits). The definition of wages used by AENA is also broader than AWE and AWOTE, as it includes pay in advance, back-pay, directors fees and irregular bonuses.

Coverage

AWOTE has the narrowest coverage of the available measures, as it only measures earnings of full-time adult employees (which account for around 65 per cent of employees in the AWE survey). AWE and AENA include earnings of both full-time and part-time workers.

AENA has the broadest coverage of the measures as it takes account of a number of categories of employees not included in the AWE survey, consistent with the broader coverage of the national accounts. The additional employee categories included in AENA are defence services personnel, workers employed overseas in Australian embassies and consulates, employees in private households, and employees on workers' compensation who are not paid through the payroll.

Other Measures

In recent times, increasing attention has been given to wage measures beyond those published by the ABS, such as the Department of Workplace Relations and Small Business' workplace agreement database and the *Cullen Egan Dell* survey of executive remuneration.

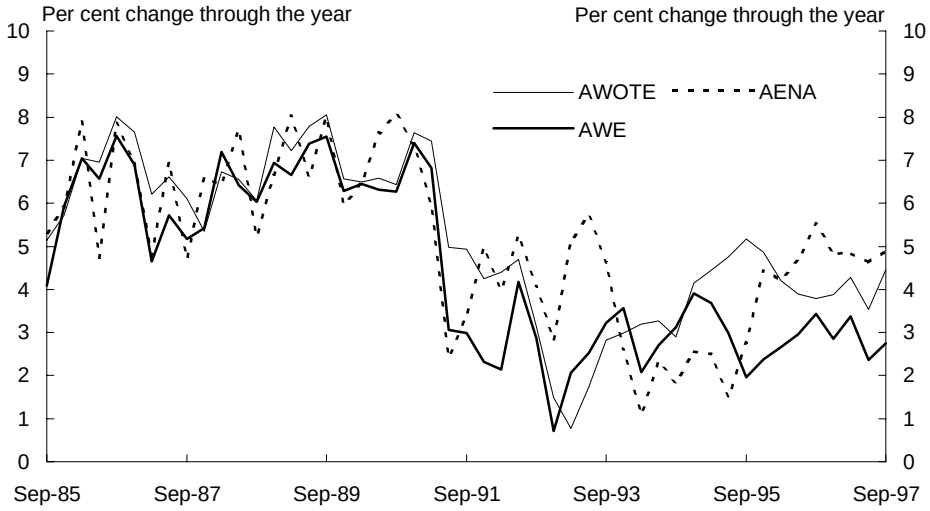
- The workplace agreement database contains information on all known federal enterprise agreements that have been certified or approved ('formalised') by the Australian Industrial Relations Commission.
- The *Cullen Egan Dell* survey measures changes in executive remuneration.

While these surveys provide useful indicators of wage developments for federal enterprise agreements and for executives, their usefulness as measures of aggregate wage movements is limited by their relatively small coverage. Only around 15 per cent of employees are covered by federal agreements, while an even smaller proportion of the workforce is in the executive sector.

RECENT TRENDS IN WAGES GROWTH

Historically, the growth rates of the three earnings measures have been very similar. In the 1990s, however, significant divergences have emerged with AWOTE growing significantly faster than AWE, while AENA growth has varied between being both faster and slower than the other two measures (see Chart 1).

Chart 1: Comparison between AWOTE, AWE and AENA



The divergence between AENA and AWE can be largely explained by differences in scope as well as differences in the share of part-time employees underpinning the two measures.

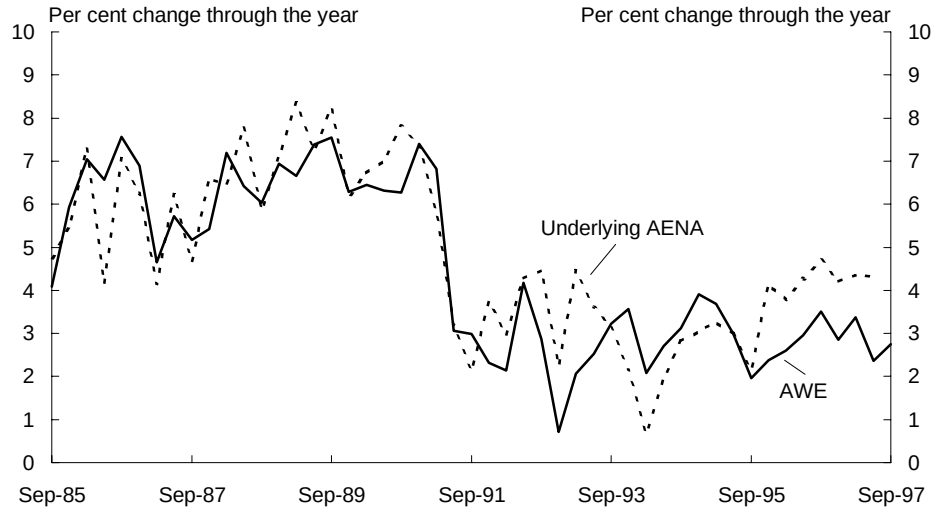
The inclusion of non-wage costs in AENA is one factor that contributes to the divergence between AWE and AENA. The relative importance of non-wage costs has increased in the 1990s, reflecting legislated increases in employer funded superannuation and termination payments associated with workplace restructuring.

Abstracting from the non-wage element of AENA (see Chart 2) provides greater comparability to AWE, although growth in the two measures still diverge significantly from the September quarter 1995.

Residual differences between the measures prior to the September quarter 1995 largely reflect the different employee coverage of AENA together with differences in data sources (AWE and AWOTE use employee data from the

AWE survey, while AENA uses employee estimates from the SEE and the LFS) and construction (the surveys differ in their timing[1] and earnings included).

Chart 2: AWE and Underlying AENA[a]



(a) Underlying AENA excludes non-wage earnings.

Much of the more recent (post September quarter 1995) divergence between AWE and AENA measures can be explained by the different movement in the share of part-time workers underpinning the two measures.

- Part-time workers have lower earnings than full-time workers, so inclusion of their earnings lowers the **level** of average wages per person.
- Differences in **growth** in the share of part-time workers will affect measured average earnings growth.

Faster growth in the share of part-time adult and junior employees recorded by the AWE survey (see Chart 3) compared with AENA substantially explains the relatively moderate **growth** in AWE since March 1995 as shown in Charts 1 and 2.

The different trends in the share of part-time employees in the three surveys shown in Chart 3 reflect differences in sample populations and collection methods (the LFS is a household survey, whereas the other measures survey employers). Of the three surveys, the LFS should be the most reliable indicator of workforce participation, as it is specifically designed for this purpose and has a larger sample size.

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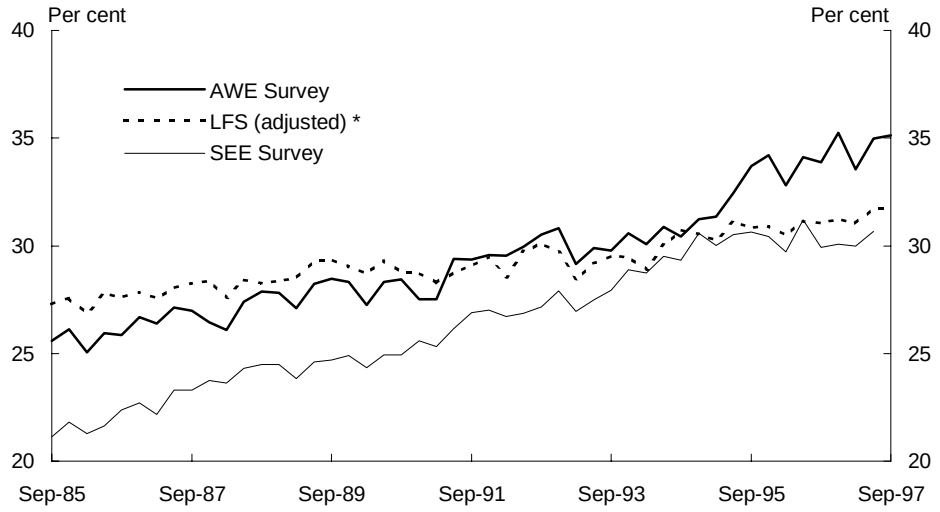
1 AENA is based on estimates of earnings and employee data for the whole quarter, whereas AWE and AWOTE are based on estimates from a specified week in the middle of the mid-month of each quarter.

Chart 3: Proportion of Part-Time Adults



* To enhance comparability between the series, the LFS series has been adjusted to remove differences in scope and the effects of multiple job holders.

The trends in the share of part-time workers shown in Chart 3 suggest that:

- AWE should not be relied upon for assessing wage growth in the period since March 1995 given the distorting effect of growth in the share of part-time employees which is not evident in other surveys; and
- there are doubts about the reliability of AENA and AWE for assessing wages growth over time, given both the SEE and AWE survey have recorded growth in the share of part-time workers in excess of the LFS since the mid-1980s, as shown in Chart 3.

ASSESSMENT OF THE WAGE MEASURES

In light of the issues discussed in the previous section, AWOTE has some advantages for measuring wages growth.

- AWOTE is unaffected by the changes in the mix of part-time and full-time employees or the amount of overtime worked.
- The narrow earnings definition of AWOTE also avoids potential volatility arising from changes in redundancies and legislated superannuation arrangements.

In spite of these advantages, the interpretation of AWOTE has been affected in recent years by increases in ordinary time wage rates in exchange for reductions in penalty payments or benefits such as leave loading, as part of

enterprise or workplace agreements. This appears to have overstated AWOTE as an indicator of movements in ordinary-time earnings. With the incidence of enterprise bargaining increasing over the last few years, it is unclear how much AWOTE has been inflated as a result of this structural factor.

Reviewing the available measures, it is evident that they are far from ideal for assessing growth in the price of labour over time because of their susceptibility to factors unrelated to changes in wage rates. In part this reflects their focus on measuring wage levels rather than wages growth. All three measures have been affected to varying degrees by the following.

- Changes in the composition of earnings and employees can affect measured average earnings even though wage rates have remained unchanged. The impact of changes in the share of part-time employees is one example. Another is the potential for a fall in the number of low paid jobs to increase measured average earnings, even though wage rates may not have changed. It has been suggested that these effects may have contributed to the diverging rates of growth in private and public sector AWOTE.
- The measures are also sensitive to the effects of sample rotation (the updating of the sample of employers each quarter to capture the effects of population change, business change and restructuring and to reduce employers' reporting costs). For example, when sample rotation results in new business units having significantly different wage structures from other business units in the survey, then this will also affect the level of the recorded average wage. This effect has been quite significant in contributing to recent volatility in quarterly AWOTE growth. Additionally, sample rotation will increase the standard errors on the quarterly movements, and as such increase the uncertainty of these estimates for assessing movements in wages over time.
- Changes in the number of paid hours worked per week may lead to changes in the level of average earnings unrelated to changes in wage rates, but because of limited information on paid hours worked, it is difficult to satisfactorily abstract from this effect.

Wage Cost Index

An ideal measure of wage growth would estimate the changing price of labour for a representative sample of jobs. Such a measure would abstract from the effects of sample rotation, compositional changes, changes in the number of hours paid and the rolling of overtime into base salary. The Wage Cost Index, which is currently being developed by the ABS, aims to provide such a measure.

The Wage Cost Index (discussed in Box 1), when fully operational, will provide a range of price indexes which will have significant advantages over existing wage statistics for measuring wages growth.

- The wage cost index will measure changes over time in the cost of a representative sample of employee jobs, not changes in earnings of a representative sample of employees. By focusing on the underlying rate of pay of the job, not the rate of pay of the **employee** in the job, changes in the index will be unaffected by compositional effects (reflecting changes in the proportions of part-time/full-time and low paid jobs, and upward revisions to the pay classification of employees).
- The wage cost index is designed specifically to measure changes between quarters, and will only report on the change. This implies that all quality checks and procedures to minimise errors are applied to the change data. This contrasts with the AWE survey which places its emphasis on the level of average wages. Focussing on change overcomes sample rotation problems arising from new firms having significantly different levels of average earnings than incumbents, because the level of average earnings is not required, only the change between two quarters is needed.
- The wage cost index will not be affected by changes in the number of paid hours. Indexes which abstract from the effects of overtime payments being rolled into base pay rates will also be published.

The new index will allow users to separately identify increases in labour costs arising from changes in the price paid per hour of labour from those that reflect changes in the mix of labour being hired (for example, increased reliance on more skilled or part-time staff) and/or changes in paid hours.

CONCLUSION

Available wage measures are not well suited to measuring movements in wage rates, reflecting their construction for other purposes. It is inappropriate, therefore, to place too much weight on quarterly movements in average earnings for assessing wages growth or for drawing conclusions on the implications for policy settings.

The current range of measures are affected by changes in wage rates as well as changes in hours worked and workforce restructuring. The divergence between available measures reflects these effects as well as differences in scope, coverage, definitions and methodology.

Box 1: Wage Cost Index

The Wage Cost Index is being developed in response to the lack of suitable statistics to measure changes in wage rates. It is the first stage of a two-stage development project comprising:

- the Wage Cost Index (WCI), which is designed to measure changes in the price of labour due to wages and salary movements; and
- the total Labour Cost Index (LCI), which will build on the wage component, incorporating hourly cost changes relating to non-wage labour costs such as employer funded superannuation payments, payments in kind (fringe benefits), workers compensation, payroll tax and paid leave.

The first release of the quarterly WCI will be in March 1998, for the December quarter 1997 (with a base of September quarter 1997 = 100). This release will provide an estimate of wage growth for the December quarter 1997. The first release of the total LCI is scheduled for 1999.

Construction of the Wage Cost Index

The WCI will be an integrated set of quarterly indexes measuring changes in wage and salary costs for employee jobs. Compilation of the indexes will be based on hourly costs collected in the WCI survey for a fixed 'basket' of jobs. To maintain the representativeness of the index over time, the sample will be rotated each September with 20 per cent of the sample being replaced.

Indexes of hourly rates of pay from the WCI will be available for both ordinary time hours and total hours.

The indexes of hourly rates of pay are 'pure price' indexes and reflect changes in hourly rates of pay resulting from changes to awards, enterprise or workplace agreements, individual contracts and other arrangements such as annual salary reviews. The 'total hours' index will be similar to the ordinary-time indexes, but will include the effect of any changes in overtime penalty rates (but not changes in the amount of overtime).

The 'total hours' index will be less affected by enterprise agreements which absorb overtime rates into ordinary time rates. For the 'total hours' indexes, when overtime penalty rates are rolled into ordinary-time hourly rates, the effect on these indexes will be minimal, since the increase in the ordinary-time hourly rate will be offset by the elimination of overtime penalty payments, leaving the index of total hourly rates largely unchanged.

The indexes of hourly rates of pay will be available including and excluding bonuses, with the series including bonuses likely to be more volatile than those that exclude them owing to quarterly changes in performance and productivity payments.

Of the available measures, AWOTE has an advantage over AWE in measuring wages growth in that it is less subject to changes in the proportion of employees working part-time and the amount of overtime worked. AENA provides the broadest labour cost measure, but has the disadvantage of being more subject to changes in hours of work and workforce composition which are unrelated to changing wage rates.

The introduction of the Wage Cost Index should overcome many of the problems with using existing measures to assess changes in wage rates. The ABS has undertaken extensive testing and evaluation to ensure that results from the new survey will be of high quality when they are first released. However, considerable caution is always required in interpreting new measures and a reasonable run of data will be required before conclusions about trends in wage growth can be made using the new series.

The Business Cycle — Developments in the Economy's Response to Disturbances

This article examines some of the developments influencing the Australian economy's response to disturbances such as drought, movements in world commodity prices and changing economic conditions in our trading partners and world financial markets. These developments include changes in macroeconomic policy, the floating of the exchange rate, microeconomic reform and changes in the pattern of business investment.

The assessment is that some of these changes, particularly the current approach to macroeconomic policy and the impact of microeconomic reform, have strengthened the stabilising mechanisms in the economy. This should help make the economy more resilient in the face of economic disturbances.

INTRODUCTION

Aggregate economic activity (as measured by GDP) in Australia, as in other economies, does not follow a smooth trend over time. Unpredictable positive and negative disturbances[1] inevitably occur and impact on economic activity, driving GDP away from its trend level. These disturbances set in train destabilising reactions which amplify and prolong the effect of the disturbances, both positive and negative, as well as stabilising responses which dampen the effects of the disturbances and bring GDP back towards trend.

The deviation of GDP from its trend level generally takes the form of a number of periods of below-trend outcomes followed by a number of periods of above-trend outcomes. This recurrent pattern is commonly referred to as the business cycle.[2] Chart 1 below illustrates the Australian business cycle since 1960.

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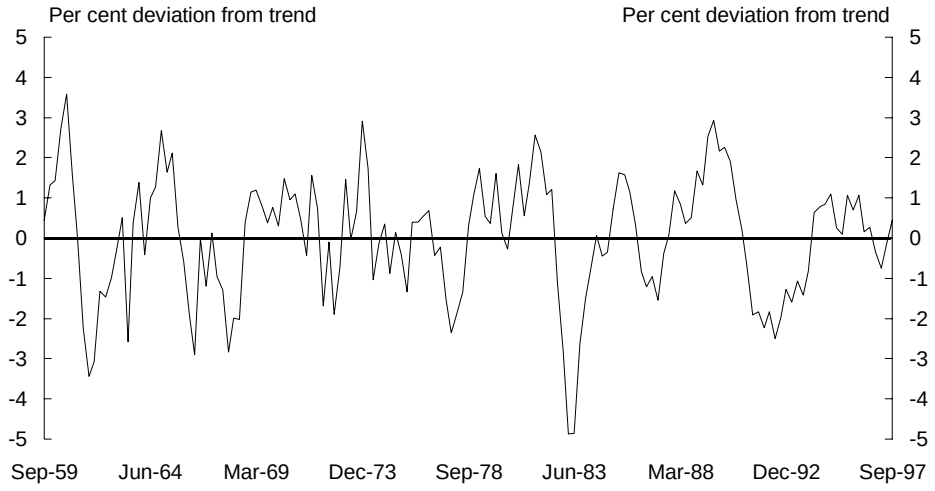
1 Economic disturbances are sometimes referred to as economic shocks.

2 The business cycle can also be defined in terms of growth rates and the pattern of successive expansions and contractions in GDP between recessions. The growth rate formulation, sometimes referred to as the 'growth cycle', refers to the variation in GDP growth around some long term trend rate. The latter concept, sometimes referred to as the 'classical cycle', takes a technical recession (two successive quarters of negative growth) as the start and end point of an individual cycle and focuses on the contrast between negative and positive growth rates. Regardless of the definition of the business cycle, the turning points of the cycle are somewhat arbitrary and depend on the trend measure employed (for the trend-based definition adopted in the main text and the growth cycle concept) and the specification of what constitutes a recession (for the classical cycle concept).

Chart 1: The Australian Business Cycle[a]



(a) Percentage deviation of real GDP (A) from trend, based on Hodrick-Prescott filter ($\lambda = 1600$).
Source: ABS Cat. No. 5206.0

It is clear from Chart 1 that the Australian business cycle does not follow any regular pattern, with significant differences apparent in both the duration and size of deviations from trend in the time period covered. These differences reflect both differences in the number and magnitude of disturbances impacting on the economy over time as well as changes in the economy's response to disturbances.

The Australian economy will continue to be exposed to a range of unpredictable yet significant domestic and external disturbances, such as drought, fluctuations in world commodity prices and changing economic conditions in our trading partners and in world financial markets. Australia will therefore continue to experience cyclical movements in activity. The extent of these movements, both in terms of the duration and amplitude of deviations from trend, will depend to a large extent on the economy's response to disturbances.

This article examines some of the recent developments influencing the Australian economy's ability to respond to disturbances. These include recent changes in macroeconomic policy, the floating of the exchange rate, microeconomic reform and changes in the pattern of business investment.

ECONOMIC DISTURBANCES AND RESPONSES — CONCEPTUALISING THE BUSINESS CYCLE

The business cycle can be conceptualised as the outcome of the interaction of economic disturbances and a set of feedback effects or responses to these disturbances.[3] Economic disturbances such as drought and commodity price fluctuations impact on economic activity and drive GDP away from its trend level. These disturbances give rise to two kinds of feedback effects.

First, a number of destabilising reactions occur which amplify and prolong the effect of disturbances. These reactions are sometimes termed the propagation mechanisms of the business cycle. The key propagation mechanisms operate through business fixed capital investment, stock/inventory investment and construction activity. In each case, economic disturbances trigger changes in investment/activity which operate with a lag (thereby prolonging the effect of disturbances on GDP) and which can magnify the effect of disturbances on GDP.[4]

Second, a number of stabilising responses take place which dampen the fluctuations in GDP and bring GDP back towards its trend level. Part of any fluctuation in demand leaks into imports, reducing the direct impact on GDP. Since consumers do not change their expenditure one-for-one with changes in household income, another part of any demand fluctuation leaks into household saving. In addition, the public sector exercises an automatic stabilising role, with a downturn in activity resulting in reduced taxation receipts and higher expenditures (helping to support activity) and an upturn in activity resulting in higher taxation receipts and lower expenditures (moderating the upturn in activity).

At the same time, prices adjust in various markets, helping to moderate the effects of any disturbance. In the product market, relative and aggregate prices change to restore balance between supply and demand. In the financial market, interest rates and the exchange rate change, stimulating changes in consumption, investment, imports and exports which assist product market adjustment. In the labour market, real wages change to restore equilibrium, resulting in changes in aggregate output which also assist the achievement of product market equilibrium.

Macroeconomic policy can also play a stabilising role, with discretionary changes in fiscal and monetary policy acting to reduce or augment aggregate demand in a counter-cyclical way.

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3 See Downes (1997) for an exposition of this framework using the TRYM model of the Australian economy.

4 Construction activity also exhibits a significant independent influence on the business cycle as a result of internally generated cyclical behaviour. The stage of the (internal) construction cycle is an important influence on the effect of disturbances on aggregate activity.

Figure 1 provides a summary of the conceptual framework outlined above, including some examples of economic disturbances. The distinction between disturbances and feedback effects is not as clear cut in practice as it may appear from Figure 1. Many of the factors that form part of the feedback mechanism are also capable of generating disturbances. In addition, apart from drought and other natural phenomena, all of the disturbances listed are themselves influenced by other disturbances and factors in the economy.

Figure 1: The Business Cycle — A Conceptual Framework

Economic Disturbances	Factors Influencing Economy's Response	Outcome
– domestic financial shocks – drought and other natural phenomena affecting primary production – labour supply disturbances (e.g. reductions in hours worked per worker) – institutional wage adjustments – underlying total factor productivity changes – changes in public and private investment (e.g. as a consequence of mineral discoveries) – commodity price fluctuations – changes in world real interest rates and equity prices – changes in export demand	***Destabilising Factors*** – business investment response – stock / inventory investment – construction activity ***Stabilising Factors*** *Product market adjustment* – relative and aggregate price movements – import response – savings response – automatic public sector stabilisers (cyclical changes in expenditure and taxation receipts) – changes in fiscal and monetary policy *Financial market adjustment* – interest rate adjustment – exchange rate adjustment *Labour market adjustment* – real wage adjustment	Recurring deviations from trend in aggregate economic activity and the rate of growth of activity.

CHANGES IN THE ECONOMY'S RESPONSE TO DISTURBANCES

The Australian economy has undergone considerable structural change over the past four decades, with microeconomic reform, increased integration with

the global economy, financial deregulation, the floating of the exchange rate and reforms of the labour market all having a major impact. The approach to macroeconomic policy has also changed recently, with a shift to a medium-term framework for both monetary and fiscal policy.

Underpinned by these developments, the Australian economy's response to economic disturbances has also changed. In terms of the conceptual framework outlined previously, some changes have occurred in the functioning of both the destabilising factors that propagate disturbances and the stabilising factors that dampen the resultant fluctuations in GDP.

With regard to destabilising factors, changes have taken place in the pattern of plant and equipment investment and inventory investment, although the effects of these changes on GDP volatility are unclear. In addition, the influence of dwelling investment on GDP fluctuations has declined during the 1980s and 1990s.

Largely as a result of economic reform, there has been an improvement in the effectiveness of the stabilising factors mentioned previously. Product, financial and labour markets are more flexible now than they were previously. The macroeconomic fundamentals are also now better than they have been for many years, which will have an important bearing in terms of insulating the economy from a range of disturbances, particularly financial market turbulence. In particular, over the 1990s, Australia has achieved sustained low inflation and declining inflationary expectations following two decades of relatively high and volatile inflation rates. In addition, fiscal policy is now making a significant contribution to lifting national saving, reversing the structural deterioration in public saving which occurred in the mid-1970s.

The following sections discuss changes in the key influences on fluctuations in Australia's business cycle in more detail.

Plant and Equipment Investment

Cyclical changes in business investment are both a source of disturbances which drive fluctuations in economic activity and an important propagation mechanism of demand and supply disturbances. They are driven essentially by the interaction between changes in current and expected aggregate demand and firms' desired levels of capacity utilisation (capital-output ratios) — for example, investment tends to rise when an increase in expected sales lifts expected capacity utilisation above desired levels.

A range of factors influence the timing and, potentially, the amplification of the impact of equipment investment changes on GDP growth. These include uncertainty about the persistence of demand changes and current excess capacity, cost considerations and time-to-build lags in investment projects.

In addition, in Australia, capital goods imports play an important role.

- While Australia has diversified its export base, it can still be broadly stylised as a commodity-exporter and a capital and durable goods importer — in contrast to say, Japan and the major European economies, which could be stylised as capital and durable goods exporters and commodity importers.
- Consequently, in Australia, the impact of changes in plant and equipment investment on GDP is likely to be offset to a significant degree by changes in capital goods imports[5].

Partly as a result of higher depreciation rates and the consequent increase in the importance of shorter-lived equipment, which contribute to a higher turnover of the capital stock and thus higher levels of investment, plant and equipment investment has increased as a proportion of GDP from around 6 per cent in the early 1960s to around 10 per cent today. At the same time, as illustrated in Chart 2, there has been a significant increase in the volatility of plant and equipment investment.[6]

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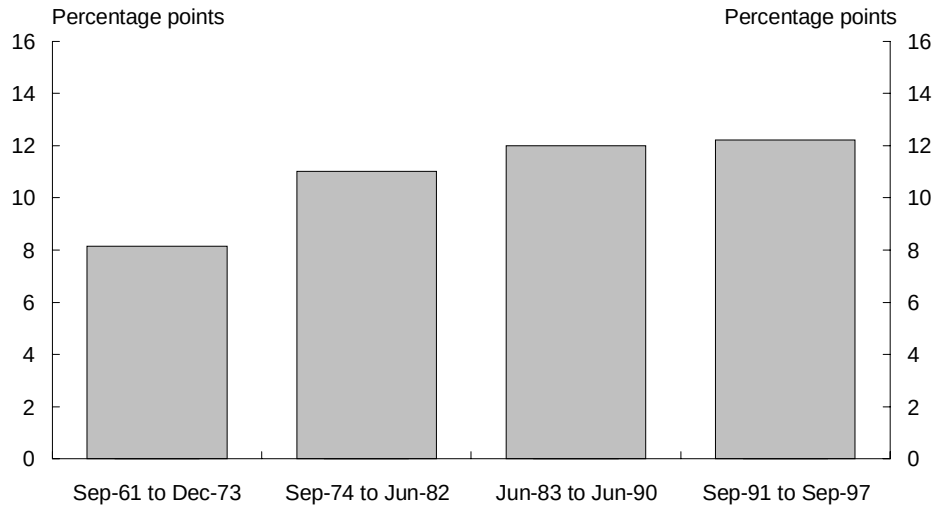
5 For a discussion of the influence of imports on the effects of plant and equipment investment (and non-farm stocks) changes, see Downes, Louis and Lay (1994).

6 In Charts 2-10, the time periods over which average contributions to GDP(E) growth and the volatility of contributions to GDP(E) growth are calculated correspond to the expansion phases between significant recessions (defined as two consecutive quarters of negative GDP growth) — with the exception of the latest period which simply reflects data to date. This is done to maximise the comparability of the data from different decades. The mild recession of 1977 is not regarded as a significant point of discontinuity in the data.

Chart 2: Volatility of Plant and Equipment Investment[a]

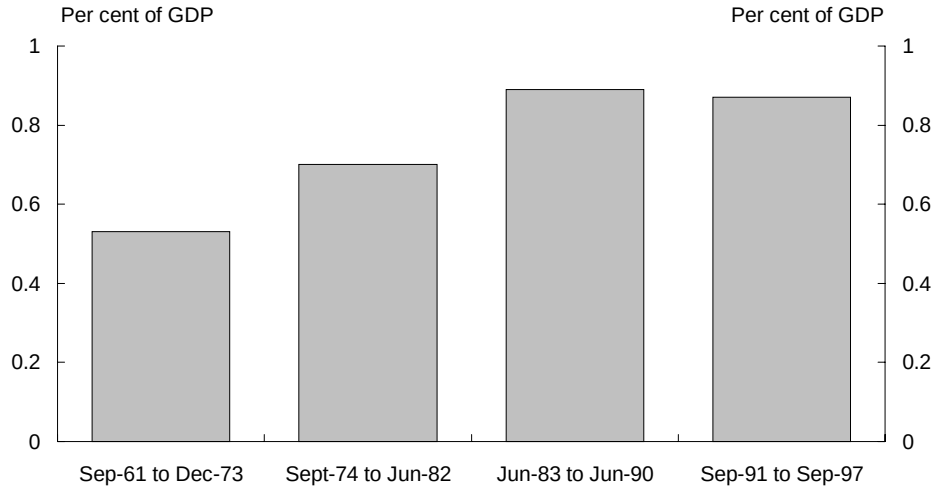


(a) Standard deviation of through-the-year growth rates. Data are in seasonally adjusted constant price terms.

Source: ABS Cat. No. 5206.0

These two developments have resulted in greater volatility in the contribution of plant and equipment investment to GDP growth in the 1980s and 1990s than in the 1960s and 1970s.

Chart 3: Volatility of Contribution of Plant and Equipment Investment to GDP Growth[a]



(a) Standard deviation of contribution to through-the-year GDP(E) growth. Data are in seasonally adjusted constant price terms.

Source: ABS Cat. No. 5206.0

The increased volatility in the contribution of plant and equipment investment to GDP growth suggests that the influence of plant and equipment investment

in terms of driving fluctuations in aggregate activity has increased in the 1980s and 1990s.

At the same time, however, the share of plant and equipment investment sourced from imports appears to have increased[7]. To the extent that this has occurred, the ultimate impact on GDP of the increased volatility in the contribution to GDP growth of plant and equipment investment will be lessened.

Dwelling and Non-Dwelling Construction Investment

One of the key characteristics of fluctuations in construction sector investment is a lagged supply response to changes in demand. In part, this results from co-ordination difficulties due to the sector's structure, comprising large numbers of small firms (particularly in the dwellings sector) with easy entry and exit and an element of speculation in building activity. These characteristics lend themselves to periods of under — and over — building on a reasonably regular basis, the most marked recent example being the sector's experience in the late 1980s-early 1990s.

The dwelling sector, with its relatively short lead times has a fairly regular cycle of around 4 years, while that of the non-dwelling construction sector, with much longer leads, has a cycle of around 15-20 years.

Unlike plant and equipment investment, dwelling and non-dwelling construction investment is not significantly based on imported inputs. Accordingly, the changing weights and volatility of contributions to GDP growth illustrated in the charts below are likely to be a good guide to the direct impact on GDP.

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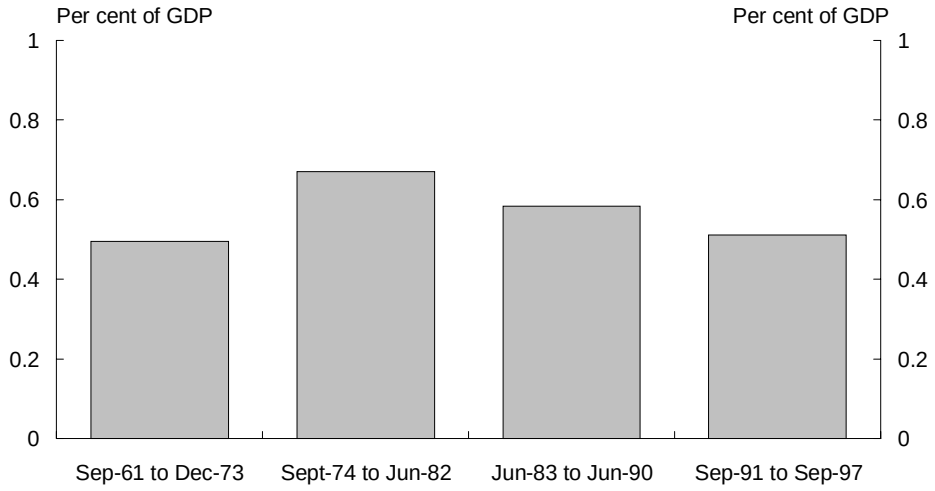
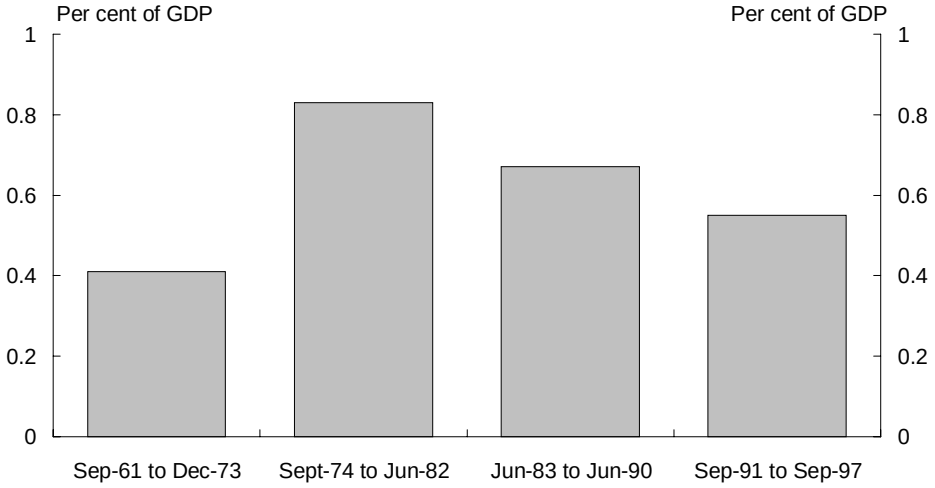
7 Current available data on capital goods imports gives an approximate measure of the relationship between imports of plant and equipment and the level of plant and equipment investment in Australia which broadly supports this conclusion. However, measurement and comparability difficulties preclude a conclusive measure of the true extent of the change in the relationship over time.

Chart 4: Average Contribution of Dwelling Investment to GDP Growth[a]



(a) Average (absolute value) contribution to through-the-year GDP(E) growth. Data are in seasonally adjusted constant price terms.
Source: ABS Cat. No. 5206.0

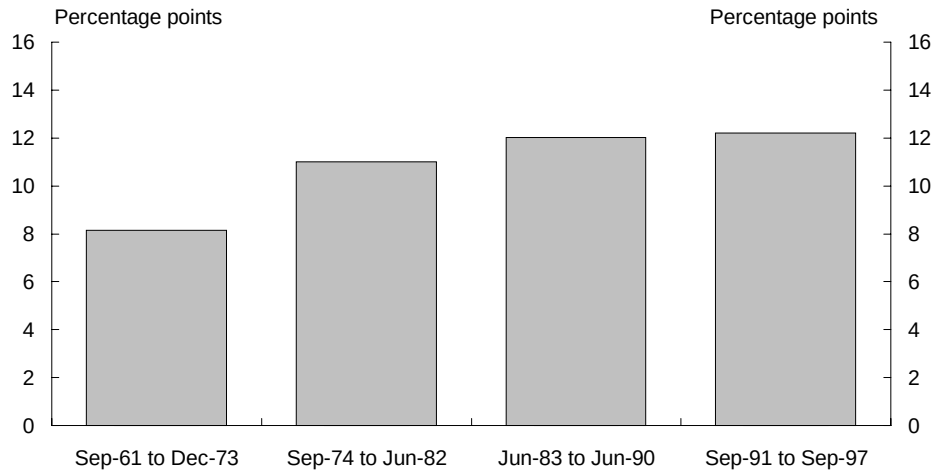
Chart 5: Volatility of Contribution of Dwelling Investment to GDP Growth[a]



(a) Standard deviation of contribution to through-the-year GDP(E) growth. Data are in seasonally adjusted constant price terms.
Source: ABS Cat. No. 5206.0

Charts 4 and 5 suggest that, after an increase in the 1970s, the influence of dwelling investment on GDP fluctuations has declined during the 1980s and 1990s to levels close to those prevailing in the 1960s. This reflects both a reduction in the share of dwelling investment in GDP and a reduction in the intrinsic volatility of dwelling investment, as illustrated in Chart 6.

Chart 6: Volatility of Dwelling Investment[a]

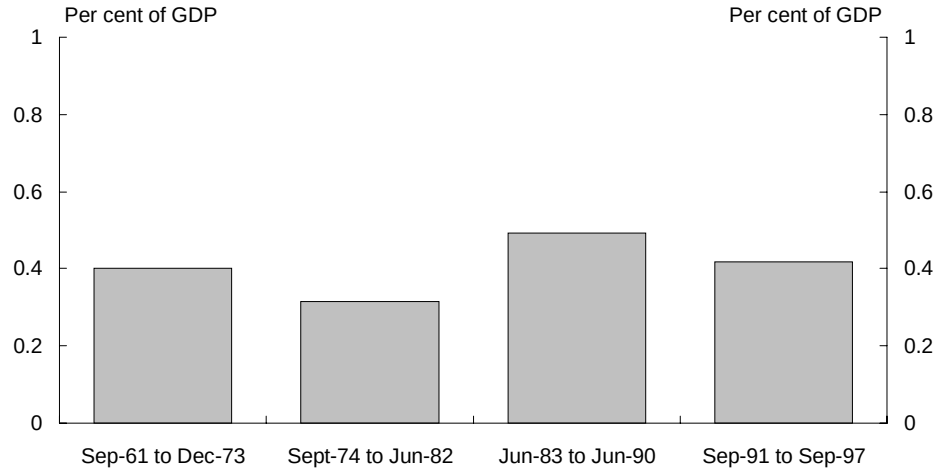


(a) Standard deviation of through-the-year growth. Data are in seasonally adjusted constant price terms.

Source: ABS Cat. No. 5206.0

In contrast, Charts 7 and 8 indicate that, after declining as an influence in the 1970s, non-dwelling construction has exerted a similar effect on GDP fluctuations in the 1990s as it had in the 1960s.

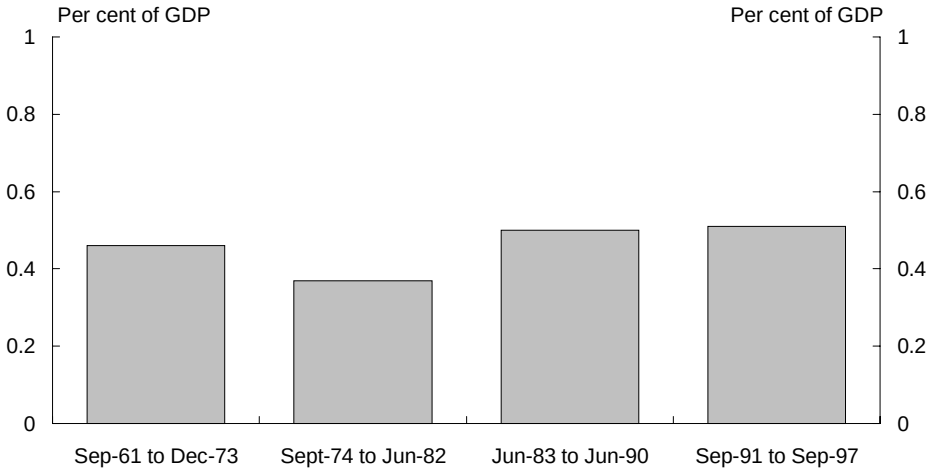
Chart 7: Average Contribution of Non-Dwelling Construction Investment to GDP Growth[a]



(a) Average (absolute value) contribution to through-the-year GDP(E) growth. Data are in seasonally adjusted constant price terms.

Source: Source: ABS Cat. No. 5206.0

Chart 8: Volatility of Contribution of Non-Dwelling Construction Investment to GDP Growth[a]



(a) Standard deviation of contribution to through-the-year GDP(E) growth. Data are in seasonally adjusted constant price terms.

Source: ABS Cat. No. 5206.0

Stock/Inventory Investment

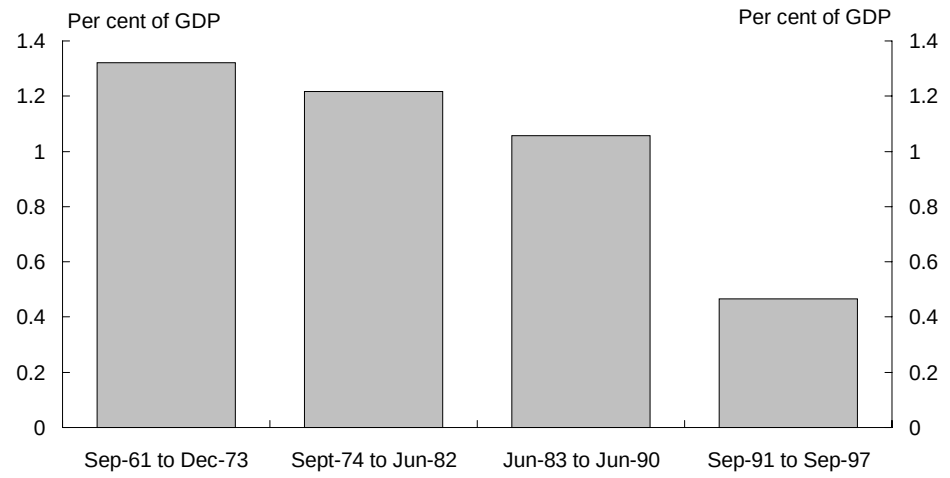
Charts 9 and 10 highlight a marked reduction in the average contribution of non-farm inventory investment to GDP growth and the volatility of this contribution in each decade since the 1960s.

Two primary developments have taken place in the structure of inventory investment since the 1960s.[8]

First, the application of improved stock management techniques such as the just-in-time system and computer-based stock monitoring systems have enabled firms to respond more quickly to changes in demand and hence to avoid large unwanted stock changes flowing from unexpected demand disturbances. Thus, the stock adjustment lag that drives the propagation mechanism of stock investment has shortened.

8 Flood and Lowe (1993) provide a detailed analysis of these developments.

Chart 9: Average Contribution of Inventory Investment to GDP Growth[a]

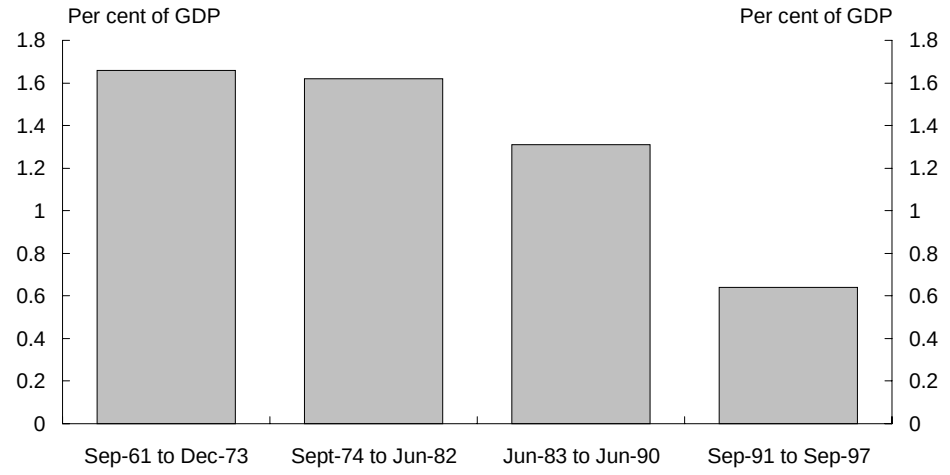


(a) Average (absolute value) contribution to through-the-year GDP(E) growth. Data are in seasonally adjusted constant price terms.

Source: ABS Cat. No. 5206.0

Second, these technological changes, and the relative growth of the services sector (with relatively small stock holding levels) have resulted in a reduction in firms' desired stocks to sales ratios. The dramatic reduction in the ratio of non-farm stocks to sales in the 1980s and 1990s is shown in Chart 11.

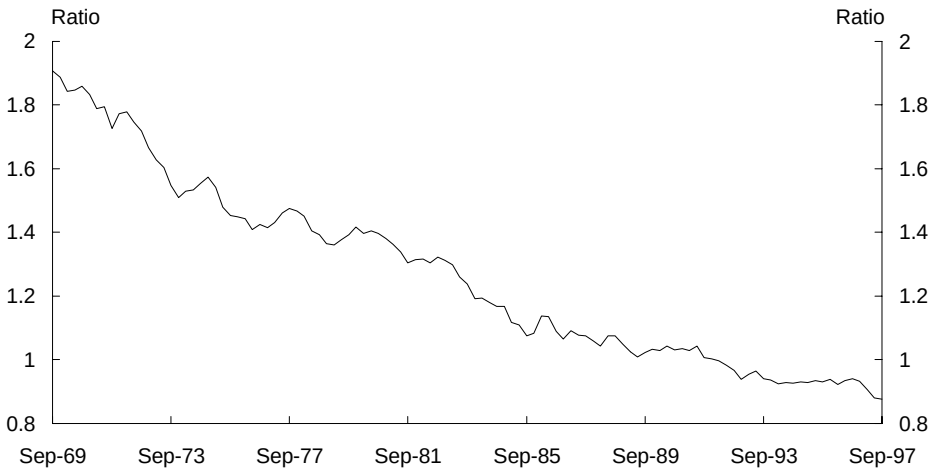
Chart 10: Volatility of Contribution of Inventory Investment to GDP Growth[a]



(a) Standard deviation of contribution to through-the-year GDP(E) growth. Data is seasonally adjusted constant prices.

Source: Source: ABS Cat. No. 5206.0

Chart 11: Stocks to Sales Ratio[a]



(a) Private non-farm stocks to sales.Data are in seasonally adjusted constant price terms.
Source: ABS Cat. No. 5206

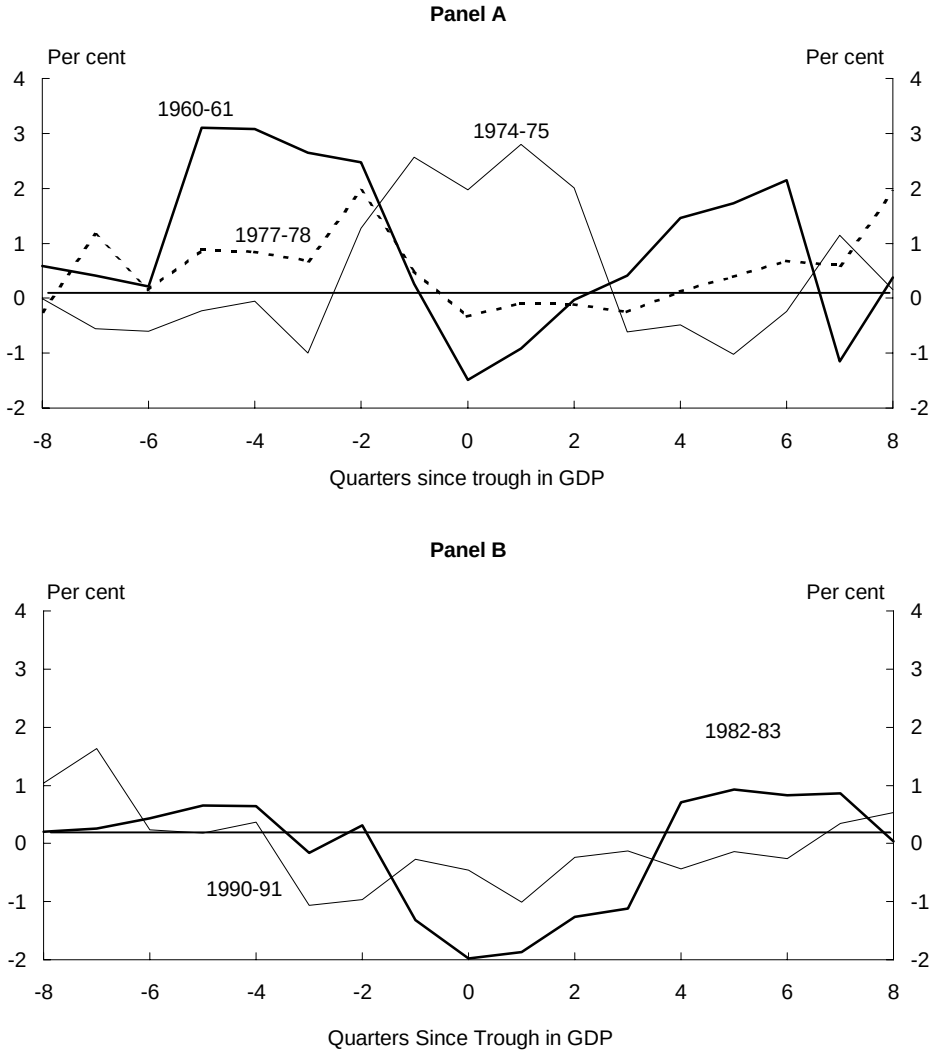
The reduction in the stocks to sales ratio is the primary factor underlying the reduced contribution of inventory investment changes to GDP growth and the reduced volatility of this contribution highlighted in Charts 9 and 10. Another factor which may be working to reduce the influence of stock investment on GDP is the increasing openness of the economy. With greater import penetration, fluctuations in demand can now be met, in part, through a greater import response and a lesser response from stocks than has been the case in the past.

The reduction in the stocks to sales ratio has also had another (opposing) effect on the volatility of GDP which is not reflected in the volatility of the contribution of inventory investment to GDP growth. With lower stocks held by firms, production is now tied more closely than it used to be to sales. That is, the role of stocks in buffering production from short-term fluctuations in sales is now less than it was.

Chart 12 shows how changes in private non-farm stocks have related to past recessions. Whereas stock investment served to buffer production (ie moderate GDP movements) in the 1960s and 1970s, it did not do so in the 1980s and 1990s. In the recessions ending in the March quarter 1983 and June quarter 1991, stocks were being run down as GDP fell. In contrast, in previous recessions, substantial stock accumulation accompanied declining GDP.

The net effect on GDP volatility of the developments discussed above is not clear.

Chart 12: Increase in Private Non-farm Stocks as a Percentage of Domestic Final Demand



Source: ABS Cat. No. 5206.0

Microeconomic Reform in Product Markets

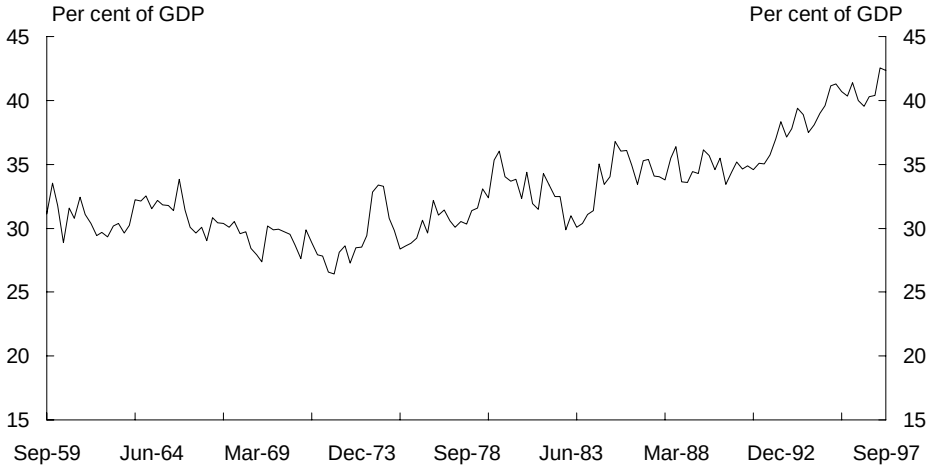
Microeconomic reform since the late 1980s has had an important impact on product market performance, including the speed of adjustment of product markets to economic disturbances. The reductions in tariff levels and the removal of other trade barriers such as quantitative import restrictions have had a particularly large impact in increasing the openness of the Australian economy. Australian firms are now exposed to much more competition from imported goods. Increased competition has required firms to respond more rapidly to changed demand and supply conditions and has thereby increased

the speed of product market adjustment to economic disturbances. It is likely that increased competition contributed to firms developing the improved inventory management systems that have underpinned the reduced influence of stock investment on the business cycle. In addition, the increase in competitive pressure has maintained downward pressure on prices as the economy has expanded out of the 1990-91 recession.

Increasing Trade Openness

Chart 13 highlights the increasing importance of trade in the Australian economy. Exports have risen from 11 per cent of GDP in 1960-61 to 25 per cent in 1996-97, while over the same period imports have risen from 13 per cent of GDP to 24 per cent. This development has been driven by increased global specialisation in production facilitated by technological change and falling trade barriers (particularly in Australia).

Chart 13: Openness — Trade Shares as a Proportion of GDP[a]



(a) Exports plus imports as a share of GDP (E). Current price data.
Source: ABS Cat. No. 5206.0.

Aside from its impact on competition and prices, as mentioned above, increased trade openness should also help moderate the business cycle.

Increased import penetration means that fluctuations in domestic demand are more likely to be met by changes in imports, rather than changes in domestic production, than has been the case in the past. For example, following a positive aggregate demand disturbance, more of the increase in domestic demand will spill over into imports than in the past, with a smaller effect on domestic production and stocks.

- This should reduce GDP volatility flowing from relatively small demand disturbances.

- At the same time however, the import response of relatively large and persistent demand surges may put pressure on the current account deficit. Unsustainable rises in the current account deficit may result in a destabilising loss of confidence and policy adjustments which, in the short term at least, may place a constraint on domestic demand.

The higher export share should also facilitate adjustment to changes in domestic demand through the diversion of products to or from export markets. For example, during periods when domestic demand is very strong, exports of some goods and services may be reduced, with exports increasing when domestic demand is relatively weak. As is the case with fluctuations in imports, such adjustment of export volumes in the face of changes in domestic demand helps to stabilise domestic production.

At the same time, a higher export share may mean that the economy is now more heavily influenced than in the past by external factors which impact on demand for Australia's exports. There have, however, been a number of countervailing developments which have operated to lessen the potential impact of external disturbances on the economy.

First, as illustrated in Chart 14, there has been a diversification of Australia's export structure away from rural and mineral commodities towards services and manufactures (particularly elaborately transformed manufactures). Commodity export prices are considerably more volatile than those of manufactured goods and services.[9] Accordingly, the Australian economy is now likely to be less vulnerable to the sharp swings in commodity prices experienced in the past.

Second, the floating of the Australian dollar in 1983 (discussed in more detail below) has meant that the impact of external disturbances on the Australian economy is now counterbalanced to some extent by offsetting exchange rate movements. With weakness in external demand for our exports, the exchange rate will tend to depreciate, boosting export competitiveness and limiting the impact on domestic activity.

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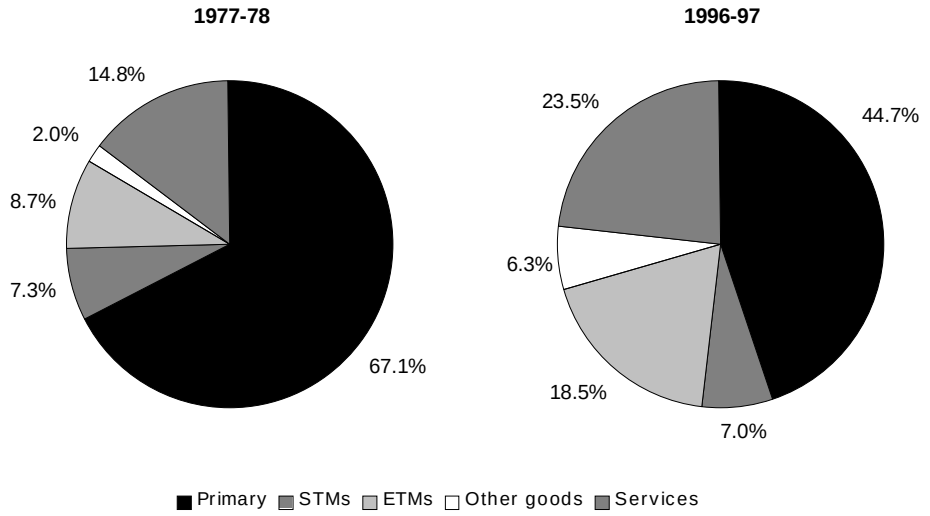
9 See Boughton (1991).

Chart 14: Australia's Changing Composition of Exports



'Other' includes non-monetary gold (50 per cent of 'Other' in 1977-78; now nearly 80 per cent) and commodities subject to a confidentiality restriction.
Source: Department of Foreign Affairs and Trade, Composition of Trade, Australia (various editions) and ABS Cat. No. 5368.0 (for Services and Total Exports).

Changes in Financial Market Responses to Economic Disturbances

The deregulation of financial markets which has taken place since the early 1980s has made a significant difference to the response of the financial market to aggregate demand and supply developments.

Improved Access to Credit

Before the early 1980s, interest rate controls as well as quantitative and qualitative lending restrictions imposed liquidity constraints on producers and consumers. As a result, transitory downturns which impacted on cash flows within the economy could not be easily absorbed through access to finance and instead resulted in a direct transmission of disturbances into expenditure and output.

Financial deregulation reduced these cash flow constraints by rationing credit on the basis of price and credit worthiness, rather than regulated quantity controls and a bias towards less risky borrowers. Now, when demand and sales turn down, firms with good long-term prospects are able to access credit facilities to handle short-term cash flow problems. In the credit-constrained pre-deregulation era these firms may have gone out of business, leading to unemployment and further declines in current spending, thus amplifying the impact of the initial downturn. Consumers too, are now better able to smooth their consumption patterns over time, with greater access to credit to fund consumption expenditure during low-income periods. In these ways, the

reduced borrowing constraints brought by financial deregulation serve to dampen the effect of downturns in the economy.

In other ways, however, these reduced borrowing constraints may tend to amplify rather than dampen the effects of disturbances on the economy. With greater access to credit, current spending has become more influenced by expectations of future income and wealth. A positive disturbance that is expected to persist for some time, raising income and wealth, is now likely to generate a greater expenditure response than in the period before financial deregulation. This will not only amplify the effect of the positive shock, it may also amplify the impact of any subsequent unanticipated downturn.

Floating of the Dollar

A major aspect of the early 1980s' financial market deregulation was the floating of the Australian dollar. The impact of this change has been to reduce the initial impact of external disturbances on GDP and to facilitate faster product market adjustment.

The effect of external disturbances such as commodity price fluctuations and changes in export demand on GDP depends critically on movements in Australia's real exchange rate (the nominal exchange rate adjusted for relative inflation in Australia compared with its trading partners). Negative external developments should lead to a depreciation of the real exchange rate, in turn stimulating domestic and foreign demand for Australian goods in an offsetting manner. With favourable external developments, the real exchange rate should appreciate, reducing domestic and foreign demand for Australian goods, again offsetting the impact on GDP.

The speed with which the real exchange rate moves is of critical importance to both the initial effect of external disturbances on the economy and the subsequent product market adjustments. With the floating of the nominal exchange rate, real exchange rate movements have become more rapid, with movements in the nominal exchange rate driving movements in the real exchange rate.

Before the floating of the Australian dollar, nominal exchange rate movements were restricted by exchange controls which tended to prevent or delay changes in the nominal exchange rate in the face of external disturbances. Changes in the real exchange rate therefore depended more on changes in Australian inflation. As a result of relatively slow price adjustment in the product market, this resulted in slow real exchange rate adjustment.

In summary, by allowing more rapid real exchange rate adjustment, the floating of the exchange rate has served to dampen the impact of external disturbances on Australian activity and to hasten the adjustment of the economy to these disturbances.

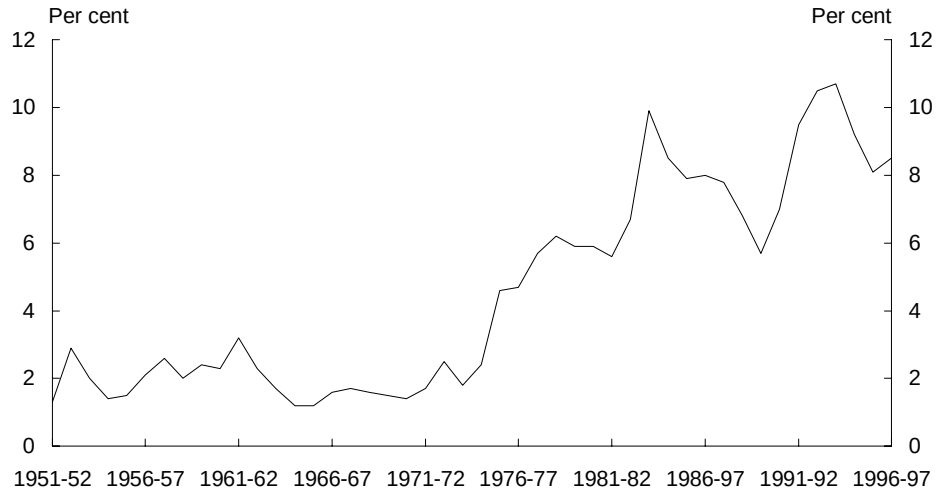
Changes in Labour Market Response to Economic Disturbances

The labour market response to aggregate demand and supply disturbances is of central importance to the performance of the economy over the business cycle. The more flexible and efficient is the labour market, the less of an impact negative economic disturbances will have on employment and output.

- With greater labour market flexibility and efficiency, disturbances are likely to be accommodated to a greater degree through aggregate and relative wage adjustments and the movement of workers between industries and regions, than through changes in employment and output.

Since the early 1970s, the rate of unemployment has followed an increasing trend, with each successive downturn resulting in a higher unemployment rate than the previous one.

Chart 15: Unemployment Rate



Source: RBA Australian Economic Statistics

The trend climb in the unemployment rate has reflected a number of factors, including:

- the interaction of Australia's centralised wage fixing system with surges in the terms of trade and inflation, particularly in the mid 1970s and early 1980s, when widespread real wage increases that were unsupported by increased productivity resulted in major upward shifts in the unemployment rate;
- a lack of flexibility at the enterprise level in bargaining on wages and employment practices which has impeded the adjustment of wages and employment practices to changed economic conditions;
- declining incentives to work as a result of the interaction of the social security and taxation systems; and

- deficiencies in the education and training system, particularly in the area of vocational education and training, which have restricted the responsiveness of the system to changing technology and industry demands.

Recent labour market reforms have been aimed at increasing the efficiency and flexibility of the labour market through facilitating enterprise bargaining. Wage setting through enterprise bargaining allows wage rates to better reflect the circumstances of individual enterprises, including productivity at the enterprise level. The spread of enterprise bargaining can contribute to lower structural unemployment through wages better reflecting the circumstances of individual enterprises as well as allowing both wages and employment adjustment in response to output disturbances.

Additional reforms to the industrial relations system, the interaction of the social security and taxation systems and the education and training system can all contribute to improvements in labour market flexibility.

Macroeconomic Policy

Since the 1930s, the relative importance of macroeconomic policy in offsetting economic fluctuations has varied with prevailing views on the strength of the economy's self-equilibrating mechanisms. These mechanisms include, as discussed earlier, changes in interest and exchange rates and the responsiveness or otherwise of product and labour markets to variations in aggregate demand and supply.

Following the experience of the Depression in the 1930s, the consensus was that industrial economies' self-equilibrating mechanisms were weak. This raised the potential for persistent periods of low output and high unemployment in the absence of offsetting policy action following economic disturbances. The apparent success of expansionary fiscal policy in particular, in lifting the economy from depression led to activist counter-cyclical macroeconomic policy being pursued in many economies through the 1950s and 1960s when authorities attempted to 'fine-tune' economic activity in response to disturbances. This consensus broke down, however, with the apparent inability of macroeconomic policy to deal with supply-side disturbances and the ongoing rise of inflationary expectations experienced during the 1970s.

As noted previously, recent policy initiatives in Australia are likely to have improved the effectiveness of the economy's self-equilibrating mechanisms — through product market and labour market reform, financial market deregulation and floating of the exchange rate. The increased flexibility which these changes entail should increase the ability of the economy to respond effectively to shocks and to minimise their impact on output and employment.

As regards the current role of macroeconomic policy, the emphasis is more on providing stability in the economic environment rather than attempting to 'fine-tune' output.

- In other words, macroeconomic policy now focuses on the maintenance of stable, sustainable economic growth and low inflation. Towards this end, fiscal policy has focused on reversing the structural decline in public saving which occurred during the mid-1970s. This decline had contributed to a widening gap between Australia's saving and investment rates with a consequent rise in Australia's structural current account deficit. The deterioration in the structural current account deficit meant that strong economic growth led to an unsustainable deterioration in the cyclical current account deficit. This made the economy susceptible to abrupt shifts in foreign investor confidence, possibly resulting in a sharp and costly adjustment.

In the 1990s, the change in emphasis for macroeconomic policy has been reflected in a shift to a medium-term framework for monetary and fiscal policy.

- Monetary policy is now set in a forward-looking manner with the objective of maintaining underlying inflation at between 2 and 3 per cent per annum on average over the economic cycle.
- Fiscal policy is now aimed at raising public saving by achieving underlying Commonwealth budget balance over the course of the cycle.

The macroeconomic stability which is an objective of the medium-term orientation of monetary and fiscal policy should result in a more certain environment for consumption and long-term investment decisions. This should facilitate a more efficient allocation of Australia's resources, maintain appropriate levels of capital investment and raise aggregate productivity growth.

The maintenance of low inflation and an improvement in public saving should also contribute to improving overall economic growth in a number of other ways.

- The establishment of a credible macroeconomic policy framework can reduce the susceptibility of the economy to destabilising capital flows.
- Long-term real interest rates may fall as a result of improved policy credibility and reductions in inflation and current account related interest rate premia. There is some evidence that this has already occurred — Australia's interest rate differentials with international economies, most notably the United States, have fallen substantially since the early 1990s.

CONCLUSION

The Australian business cycle has been shaped by the interaction of an unpredictably changing sequence of economic disturbances and a more predictable, although also changing, set of feedback effects. Commodity price fluctuations, drought, wage developments and mining industry factors, among other disturbances, have repeatedly pushed aggregate economic activity away from its trend level. These disturbances have been prolonged and amplified by reactions in plant and equipment investment, stock/inventory investment, dwelling investment and non-dwelling construction investment. The resultant fluctuations in GDP have been dampened by product, financial and labour market responses, which have tended to bring GDP back towards its trend level.

Over the past four decades there has been a range of important developments that has changed the functioning of both the destabilising and stabilising feedback effects and hence the economy's response to disturbances.

In relation to destabilising factors, changes have taken place in the pattern of plant and equipment investment, dwelling investment and inventory investment. Some of these changes (such as the increased volatility of plant and equipment investment) have tended to amplify fluctuations in GDP while others (including the reduced volatility of dwelling investment) have tended to reduce the fluctuations.

The stabilising factors in the economy have been strengthened on a broad front, especially in recent years. As a result of microeconomic reform, product, financial and labour markets are now more flexible and adjust more rapidly to disturbances than in the past. Increased trade openness, the floating of the Australian dollar and the shift to a medium-term macroeconomic policy framework have also contributed to increasing stability.

The net effect of these developments on the extent of fluctuations in GDP is not yet clear. It is clear, however, that economic reform has made Australia more resilient in the face of economic disturbances than it would have been otherwise. This should contribute to a more stable economic environment in Australia. Most importantly, it should limit the severity of future downturns and the consequent losses to the Australian economy in terms of output and employment.

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Taxation of Financial Arrangements: The Trading Regime

This paper was presented by Richard Wood of the Taxation Policy Division to the 'Derivatives and Synthetic Equities' Conference held in Sydney on 28-30th October 1997. This conference was organised by ATAX/University of New South Wales as part of the Australian Taxation Studies Program.

INTRODUCTION

This presentation is focussed on the issues raised in industry submissions on the **trading regime** proposed in *The Taxation of Financial Arrangements: An Issues Paper (*TOFA).[1] We will say little here about TOFA's hedging regime[2] or its investment / financing regime.

In TOFA financial arrangements are defined as debt, traded equity, foreign currency gains and losses and derivatives. At its simplest, all financial arrangements are forward looking contracts involving the exchange of one or more cash flows[3] (or securities, commodities, etc of equivalent value) at different points in time. Financial arrangements can generally be traded, converted or realised almost instantaneously. Their supply, demand and prices are influenced by, inter alia, the time value of money and risk (either directly or indirectly).

The **time value of money** depends on the interest rate and the duration of particular transactions. It is essentially the prospective inter-temporal nature of relevant cash flows, differences in the tax treatment of alternative sources of

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1 *Taxation of Financial Arrangements: An Issues Paper*, Australian Government Publishing Service, Canberra, December 1996, prepared by a Joint ATO / Treasury Working Group and issued by the Secretary of the Treasury and the Commissioner of Taxation. Dr. Alan Preston, a former Deputy Secretary of the Treasury, and Mr Peter Simpson, Second Commissioner, Australian Taxation Office, contributed intellectual and management direction to the project from its inception.

2 In TOFA the hedging regime creates a bridge from derivative and foreign currency hedges to other areas of the business tax system (as shown in Chart 1). The hedging regime ensures that, within the differentiated business tax system, hedging and the hedged instruments are treated equally for tax purposes (in that timing mismatches are removed). By this mechanism, where hedging takes place the proposed taxation system for financial arrangements does not disturb pre-tax investment rankings.

3 Including option premiums, discount and interest, swap payments, dividends, payments of principal and the rise and fall in market prices, foreign currency movements, prices and settlements of futures and other derivatives, etc.

finance, and synthetic replication, which complicate the current tax treatment of financial arrangements.

Achieving efficiency in **risk management and allocation** requires that a high degree of pre-/post-tax neutrality be established for financial arrangements. Ideally, where two different financial arrangements exhibit the same risk and create identical inter-temporal cash flows the tax consequences should be the same. Equally — and with adequate protection of relevant revenue bases and with due regard to the impact on the overall degree of risk-taking — the gains and the losses arising to the holder of any given financial arrangement from risk-taking should be treated symmetrically for tax purposes. At the same time the tax system should not impede risk transference or distort the hedging of risk. From these principles one can discern that if trading, hedging and investment funds are not to be diverted from their optimal pre-tax, risk-adjusted allocations the tax system will need to be characterised by a high degree of uniformity and consistency in the treatment for economically-equivalent cash flows and by an absence of tax mismatches.

It follows that the rationale for the proposed reforms to the taxation of financial arrangements hinges on four basic considerations:

1. The tax treatments currently applying to many financial cash flows have little regard to the economic substance of transactions and are uncertain, anomalous, inconsistent, complex and distortionary.

2. The current business taxation system imposes different tax treatments on different classes of financial arrangements. The most pervasive discontinuity occurs because debt is generally taxed on an accruals/revenue basis (and interest is deductible) whereas equity is generally taxed on a realisation/capital basis (and dividends are not deductible but are frankable and rebatable).

3. With the aid of financial engineering, financial arrangements of one class (say debt) can be combined with derivatives to replicate or mimic the cash flows associated with another class of financial arrangements (say equity).

4. Propositions 1 and 2 (above) imply that hedging and risk management are often inefficient and propositions 2 and 3 imply scope for a relatively high degree of tax-driven innovation and arbitrage against the revenue, the source of which no amount of financial arbitrage can eliminate.

The TOFA proposals aim — within the constraints of the predetermined tax framework of the larger business tax system — to reduce uncertainty, provide for a more comprehensive and consistent 'accruals' treatment of financial arrangements, achieve greater neutrality in the tax treatment of hedging arrangements, complement the desire of taxpayers to lower compliance and transaction costs and enhance their competitiveness, reduce tax arbitrage

opportunities and abuse, and not impede financial arbitrage and financial innovation.

MARKET VALUE TAXATION SYSTEMS AND TOFA'S TRADING REGIME

The traditional 'realisation' based tax system creates the potential for income deferral and loss crystallisation. Even when applied to non-financial arrangements, such a system creates potential for distortions and tax avoidance as the period of deferral — and, hence, effective tax rates — may be varied from project to project and from firm to firm.[4] However, when taxpayers have the added advantage of being able to use financial engineering, derivatives and replication techniques to create any degree of risk they choose, and then to alternate between different tax treatments (for instance, between 'accruals' and 'realisation'), the scope for adverse selection aimed at deferring and avoiding tax is infinitely greater.

A variety of systems have been considered as possible general methods for taxing financial arrangements, including:

- bifurcation (splitting into component parts);
- integration (amalgamation);
- application of general accounting principles or practices;
- market value;[5]
- hedging rules;
- accruals rules (for expected income and expenses); and
- other *formulaic* rules based on expected, standard or retrospectively allocated returns.[6]

TOFA has as its foundation a 'market value' based tax accounting regime for 'traded' financial arrangements. TOFA's 'trading regime' will — if agreed by

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4 Under a realisation-based tax system as the duration of time (over which an appreciating asset is held) increases the effective tax rate declines. Thus equity investments may be held longer than would be dictated by optimal pre-tax risk analysis.

5 Variously referred to in the academic literature as the 'mark-to-market' or 'full accrual approach' or the 'accretion approach'. Scarborough proposes a variation which he calls 'expected value taxation' for certain derivatives to prevent anticipated deferral. See Scarborough, R. H., 'Different Rules for Different Players and Products: The Patchwork Taxation of Derivatives', *Taxes*, December 1994.

6 Warren, A. C., 'Financial Contract Innovation and Income Tax Policy', *Harvard Law Review*, Vol. 107, 1993, pp. 477-482. These methods generally attempt to devise set formulae which can be applied to contingent return instruments in order to establish similar accruals treatments as those applying to fixed return instruments.

government — represent the first substantial application of the market value approach to financial arrangements in Australia. Under market value methods (as applied in TOFA) a rise in the value of a traded financial arrangement between the beginning and end of the tax period is assessable on revenue account, as is any cash inflow attaching to the financial arrangement that occurred between these end points. Diminutions in the value of traded financial arrangements, or cash outflows, would generally be deductible where the loss had a sufficient nexus with the derivation of assessable income. As such, the most comprehensive measure of economic income would form the accruals tax base within this segment of the broader business (imputation) tax system, and in that domain much of the potential for tax deferral and avoidance would be effectively removed.

Chart 1 illustrates how TOFA's trading regime and the accompanying hedging regime fit within the broader business tax system.

A market value based tax system is consistent with the conceptual framework advocated by Haig and Simons[7] for taxing economic income in a comprehensive manner. The market value approach has also been recommended for financial arrangements by Strnad[8] (1985), Shakow[9] (1986), Evans[10] (1989), Shuldiner[11] (1992), Warren[12] (1993) and Scarborough[13] (in 1994). The virtues of a market value based tax system design have been described as including '. . . uniformity, consistency, linearity, uniqueness and the removal of timing and character mismatches, adverse selection and tax arbitrage possibilities.'[14]

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7 Haig, R. M. 1921, 'The Concept of Income' in Haig, R. M. (ed.) *The Federal Income Tax*, New York. Also see Simons, H. C., 1938, *Personal Income Taxation; The Definition of Income as a Problem of Fiscal Policy*, University of Chicago Press.

8 Strnad, J., 'Taxation of Income from Capital: A Theoretical Appraisal', *Stanford Law Review*, Vol. 37, 1985.

9 Shakow, D. J., 'Taxation Without Realisation: A Proposal for Accrual Taxation', *University of Pittsburgh Law Review*, Vol. 134, 1986.

10 Evans, T. L., 'The Evolution of Federal Income Tax Accounting — A Growing Trend Toward Mark-To-Market', *Taxes*, Vol. 67, December 1989.

11 Shuldiner, R. A., 'General Approach to the Taxation of Financial Instruments', *Texas Law Review*, Vol. 71, December 1992.

12 Warren, A. C., *op. cit*.

13 Scarborough, R. H., 'Different Rules for Different Players and Products: The Patchwork Taxation of Derivatives', *Taxes*, Vol. 72, December 1994.

14 See Wood, R. B., 'Taxation of Financial Arrangements; Selected Topics', *Economic Roundup*, Autumn 1997, Commonwealth Treasury of Australia, Australian Government Publishing Service, Canberra. Shuldiner, referring to full accrual of gains and losses, has claimed that 'such an approach would solve both the direct and indirect problems of deferral' (See Shuldiner, R., *op. cit.*). Scarborough notes that 'mark-to-market accounting eliminates both anticipated and unanticipated deferral, and also prevents use of straddles to defer income'. (See Scarborough, R. H., *op. cit.*). Bradford has demonstrated that the market value approach is linear. (See Bradford D. F, *Fixing Capital Gains: Symmetry, Consistency and Correctness in the*

Chart 1: Stylised Business Tax System

Download page 73 separately in document named Chart1.rtf and Chart1.pdf

Taxation of Financial Arrangements, National Bureau of Economic Research, Working Paper No. 5754, September 1996).

Use of the market value method has particular relevance and practicability in relation to 'traded' financial arrangements where markets are deep and relatively liquid; where transactions and portfolios are divisible, fungible and subject to combination and replication; where prices are continuously quoted or are readily calculable; and where price gains create value for the holders of instruments whether or not they are actually converted into cash.

In order to overcome the incentive for tax arbitrage under the standard realisation approach, some commentators[15] have proposed methods which, while maintaining the realisation basis, include an adjustment at the point of realisation for the retrospective allocation of gains on an accrual basis. For instance, Bradford[16] reaches the view that both the 'mark-to-market' method and the Auerbach 'look-back realisation' method[17] would provide for a linear[18] tax system for financial instruments. However, Bradford then makes a critical assumption (at page 53) that 'the mark-to-market approach is practically infeasible' and goes on to recommend the adjusted (Auerbach) realisation approach '. . . as the only practically feasible approach that will work'. Bradford's assumption that the market value approach is practically infeasible may — due to valuation difficulties — be accurate in respect of a 'universal' mark-to-market regime (where all physical and financial assets and liabilities and property rights are included in the market value tax base). In our view, however, that assumption is not applicable to TOFA's more limited 'trading regime' where only traded financial arrangements are involved, and where the relevant prices on which market values are based are either posted instantaneously or are generally estimable.

Given our judgement that the mark-to-market method is generally suitable as a method of taxing traded financial arrangements, the next question which arises is whether the insertion of a market value regime for this sub-category of financial arrangements within the wider boundaries of the existing business tax system would create potentially disruptive capital flow, liquidity and asset price adjustments?[19] Within that larger hybrid business tax framework some assets (traded financial arrangements) would be 'marked-to-market' whereas

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15 Vickrey, W., 'Averaging of Income for Tax Purposes', 47, *Journal of Political Economy*, 1939; Fellows, M. A., 'Comprehensive Attack of Tax Deferral', *Michigan Law Review*, 1990; Auerbach, A. J., 'Retrospective Capital Gains Taxation', *The American Economic Review*, March 1991. Warren, A. C., *op. cit*.

16 Bradford, D. F., *op. cit*.

17 Auerbach, A. J., 'Retrospective Capital Gains Taxation', *American Economic Review*, 1991.

18 Bradford, (p. 5) refers to linearity as follows; 'The rules that translate the transactions into taxable incomes have the property of linearity in the sense used in this paper if, when applied to the combination of two sequences of transactions (adding them together), they produce the combination (the period-by-period sum) of the corresponding taxable income sequences'.

19 Put another way, if an ideal 'market value' based income tax sub-system is inserted within a larger, 'less-than-optimal' business income tax system, is this second-best outcome an improvement to economic welfare?

other assets would be taxed on a 'realisation' basis, and some of those would be taxed only on the basis of 'real' gains. The answer to the question posed above turns largely on the extent of the effective difference between the **tax treatments** of traded financial arrangements and other physical and financial assets (ie, essentially between 'market value' and 'realisation' tax accounting methods on the one hand, and between 'nominal' and 'real' tax accounting on the other, respectively) and on the **degree of substitutability** between traded financial arrangements and other physical and financial assets.

In relation to the relevant **effective tax rates**, it is generally the case that the longer is the term of an instrument's life the greater is the potential difference between the 'market value' and 'realisation' tax treatments. The fact is, however, that many, if not most, 'traded' financial instruments have a relatively short life. For instance, the term of most forwards and options is less than twelve months.[20] Furthermore, market value methods are already applied widely through current commercial accounting practices (at least by financial institutions) to most traded financial arrangements. In a low inflation rate environment the short-term nature of traded financial arrangements would mean that relatively small differences may be expected between nominal and real valuations. Taken together, and quite apart from **substitutability** impacts, these considerations would work to minimise differences in effective tax rates between traded financial arrangements and other physical and financial assets following the insertion of TOFA's market value tax regime (and the accompanying hedging regime) within the broader business tax system.[21]

Other issues arise in relation to the distinction (borderline) introduced in TOFA between the tax treatment of financial arrangements held by individuals and those held by financial institutions and other business entities. In this case the somewhat pragmatic departure from first-best 'universality' is justified largely on compliance grounds and on broader public policy considerations. Even so, a residual concern surrounds the beneficial position which that approach might afford certain individual taxpayers, wealthy traders in particular.

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20 Around 70 per cent of all banks' derivative transactions (including 91 per cent of all forward rate agreements, 93 per cent of foreign exchange forwards and between 55 and 79 per cent of standard options) have a maturity horizon of less than a year. See 'Australian Banks' Activities in Derivatives Markets : Products and Risk Management Practices', *Reserve Bank of Australia Bulletin*, September 1994.

21 Professor Jeff Strnad has demonstrated — under certain conditions — the conceptual possibility of producing a consistent and universal tax system in situations where different tax treatments apply for different asset types. See Strnad, J., 'Taxing New Financial Products; A Conceptual Framework', *Stanford Law Review*, Vol. 46, February 1994, pp. 577-593.

THE SCOPE OF THE PROPOSED MARKET VALUE TAX SYSTEM

While market value methods are used with varying degrees of application by the accounting profession, it is argued in a recent International Accounting Standards Committee Discussion Paper[22] that:

> 'the case for adopting a comprehensive fair value system for financial instruments becomes compelling when financial markets are sufficiently developed, accessible and pervasive such that: a) virtually all financial instrument transactions are priced by reference to current market prices for equivalent risk; b) enterprises can access markets so as to take advantage of changes in fair value; and c) reliable fair values are readily determinable for the large majority of financial instruments.'

The IASC Discussion Paper goes on to argue that the superiority of 'fair value' methods for accounting purposes rest on its greater **predictability** (fair value reflects the capital market's current assessment of future cash flows), **comparability** (fair values are comparable as they are measured by the same method at the same moment in time), **consistency** (with active financial risk management practices), **total recognition of value, inclusiveness of term structure of interest rates, reduced complexity**, etc. The IASC proposals are intended to cover all financial assets and liabilities not just those used for trading purposes. Whether such a broad (universal) application could be achieved in practice in the near future given measurement requirements and complications (for instance, where markets are illiquid or where investment in physical assets is underway but is still incomplete) is a matter for further analysis and judgement.

Marking-to-market of 'traded' financial arrangements for commercial accounting purposes is prevalent 'in practice'. A recent Australian Financial Markets Association (AFMA) survey claimed that 'survey respondents fully supported the marking-to-market of trading transactions'.[23] The prevalence of

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22 International Accounting Standards Committee, March 1997, *Accounting for Financial Assets and Liabilities*, Discussion Paper, London.

23 *Accounting for Financial Instruments, 1995 Survey*, conducted by Deloitte, Touche Tohmatsu for the Australian Financial Markets Association. While one of the submissions rightly pointed out that this assertion (which appears in the 'Executive Summary' of the AFMA Survey) is not directly attributable to the survey responses, the survey responses do show that:

- 80 per cent of respondents distinguish between financial arrangements based on trading, hedging and investment purposes.
- 77 per cent of respondents apply mark-to-market methods for derivatives.
- for derivatives only a very small percentage of respondents (around 4 per cent) use a 'due and receivable / payable' commercial accounting practice and for traded securities 88 per cent of respondents adopt the mark-to-market commercial accounting method.

the application of market value methods to trading activities in the current commercial accounting practices of the larger corporations is more uncertain.[24]

Of course, it would be inappropriate to necessarily assume that what may be considered appropriate for commercial accounting standards is also necessarily appropriate for taxation purposes, even if there was an agreed position among accountants, which, quite evidently, is not the case. That said, there does seem to be scope to move the tax arrangements for traded financial arrangements closer toward commercial accounting practices. From both a taxation policy and business perspective, the longer term aim, at least in so far as financial arrangements are concerned, should be to achieve greater uniformity and harmonisation in the application of the different business income concepts used by accountants, tax authorities and the legal profession.[25]

The submissions, commenting on paragraph 12.10 of TOFA, rightly emphasise the need to give greater definition and bring greater certainty to the 'trading/investment' distinction. This work is already underway.

Trading[26] activity (as it applies to financial arrangements) essentially involves the purchase and sale of financial assets and derivatives, usually for the short term, with the intention of making profits from (short-term) movements in the relevant price and margin spreads. Debt, equity, foreign exchange and derivatives are potentially fully interchangeable in this activity. Given the purpose-based tax framework, and taking into account replication possibilities and the relatively high degree of substitutability among traded financial arrangements, there is logic to the view that all traded financial arrangements would need to be consistently marked-to-market for tax purposes if full functional pre-/post-tax neutrality among traded financial arrangements is to

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24 Survey results suggest that around 48 per cent of non-financial corporates in Australia used market rates as performance benchmarks for commodities and foreign exchange while just under 30 per cent use the market rates as benchmarks for interest rate management. See 1996 *Corporate Treasury Survey*, conducted by Ernst and Young and the ANZ Bank.

In the United Kingdom 58 per cent of companies indicated that they mark-to-market value their derivatives on a frequent basis for management information purposes. See *Survey of the Corporate Use of Derivatives*, Touche Ross, Management Consultants, 1995, Deloitte Touche Tohmatsu International.

25 For a commentary on the different treatments of income by accountants, economists, lawyers and tax authorities see Mulvey, T. J., *Assessing 1990's Australian Taxation Reforms Related to Financial Instruments: 'Second Best' Analysis of the Move from a Realisation to an Accruals Regime*, dissertation for Master of Economics degree, Department of Accountancy, University of Sydney, April 1997. Mulvey summarises the differences in the following succinct manner: 'The notion of realisation is central to the traditional (legal) concept of income used in accounting and taxation. In contrast, it was noted that for many economists income includes all gains, both so called realised and unrealised. Also while accounting and taxation practices distinguish between capital and income no such distinction exists in economics.'

26 In contrast, purchases of securities for investment purposes generally involve an intent, at the time of purchase, to hold the security for the longer term or until maturity. Arguably, securities sold for asset/liability management purposes could reasonably be regarded as 'trading' not 'investment'.

be achieved. Thus, in TOFA it was considered that in order to achieve uniformity of the tax treatment of cash flows reflecting 'risk' and 'time' among functionally similar instruments, to facilitate maturity, completeness and efficiency among all relevant markets, to reduce complexity in the tax system and to give an appropriate reflex of income, all 'traded' financial arrangements needed to be assessed for tax purposes on a market value basis and on revenue account.

TOFA's trading regime seems most applicable to the trading activities of banks[27], broker/dealers[28] and some larger corporates.[29] As the submissions make clear, the extent to which the trading regime should apply to 'conduits' is more controversial (see later discussion under the heading 'Traded Equity and the Trading Regime').

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27 Banks employ risk managers (who allocate risk limits to traders), traders (who are market markers) and dealer/salesmen (who influence the degree of liquidity and market completeness by being prepared to buy and sell securities and derivatives to meet customer demands, including the quoting of two-way prices). Traders usually hedge the inventory positions which result.

Banks can be seen to have separable trading and investment activities. In their trading activities banks generally have high turnovers and they secure profitability partly from buy/sell spreads (where trading portfolios are largely hedged) and partly from the assumption of risk (subject to limits imposed by management). Their investment activities typically have less turnover, are less hedged, and assume greater market risk.

28 The *G 30 Report* recommends that dealers mark-to-market their derivative positions on a daily basis. Concentration among dealers is high: surveys for a number of countries suggest that around 75 per cent of national turnover in OTC markets is covered by only 10 market makers (on average). See Vrolijk, C., *Derivatives Effect on Monetary Policy Transmission*, IMF, WP/97/121, September 1997.

29 The extent to which non-financial corporates engage in trading activity is uncertain. However, in the *1996 Corporate Treasury Survey*, conducted by Ernst and Young and the ANZ Bank, the following results were reported:

a) Between 10 and 29 per cent of the subject matter discussed at treasury committee meetings addressed trading/arbitrage activities.

b) Between 4 and 8 per cent of respondents used trading as a foreign exchange/commodity price risk management technique.

In the United States of the 41 per cent of firms using derivatives, 99 per cent were using derivatives primarily for hedging purposes, although 35 per cent 'sometimes' held speculative open positions. Managing volatility is reported as the most important risk management objective. See *1995 Survey of Derivative Usage by US Non-Financial Firms*, Bodnar and Marston, Wharton School, University of Pennsylvania (as reported in Vrolijk, C., *op. cit.*, p. 47).

In relation to the UK, a *Survey of the Corporate Use of Derivatives* published in January 1995 by Touche Ross Management Consultants found that:

a) Corporates rarely undertake dynamic hedging or delta hedge positions.

b) Only 8 to 12 per cent of respondents transact derivatives where there is no underlying position. That is to say about 10 per cent used derivatives for speculative purposes.

In Canada 94 per cent of non-financial firms listed on the Toronto Stock Exchange used derivatives for hedging purposes. See *1995 University of Waterloo Survey of Canadian Derivative Use and Hedging Activities*.

It would be inappropriate, therefore, to suggest that at this stage there is full agreement to TOFA's 'trading regime' proposals. Some submissions are opposed to the use of the market value tax accounting method, particularly as it might be applied to traded equity (although this opposition may, in part at least, reflect uncertainty about what would be included in TOFA's traded equity regime). However, the principal questions raised in many of the other submissions on the application of the market value method to trading activities are not about its theoretical appropriateness but rather, they centre more on concerns over practicability. These include the impacts of the mark-to-market method on the volatility of tax cash flows, the taxation of unrealised gains and the bringing forward of tax revenue. Concerns have also been expressed in the literature in relation to the application of the market value method to instruments in markets which are relatively illiquid.[30] Let us turn to these issues.

Volatility of Cash Flows and the Taxation of Unrealised Gains

Some submissions assert that a market value tax system will increase the volatility of tax payments and complicate the management of franking policy given that unrealised gains and losses would be included as assessable income.

Whether, and to what extent, the application of the mark-to-market tax accounting method would, in fact, significantly increase the volatility of the tax payments applying to 'traded' financial arrangements is essentially an empirical matter, dependent primarily, in the TOFA context, upon, inter alia, the timing and pattern of unrealised trading gains and losses over the course of economic and market cycles. Where large numbers of trading transactions are transacted over the short term (say, within a twelve month period), and where hedge books and offsetting arrangements are in place, the additional volatility introduced by moving from a realisation to a mark-to-market based tax accounting system may not be substantial or excessive. Whatever the force of that conjecture, we recognise the need — from the viewpoint of both the taxpayer and the revenue authority — to understand better what happens to the volatility of tax payments (in a 'market value' compared to a 'realisation' based system), particularly in periods when the relevant underlying market itself is volatile.

It has been suggested in some submissions that a loss carry back rule may address the concern felt outside the banking and finance sector over the taxation of unrealised gains. Other submissions have mentioned the additional need for amendments to the franking regime and dividend rebate arrangements in so far as they relate to financial arrangements. We are currently investigating the empirical and policy issues relating to the potential volatility of tax cash flows and in that context we will examine, *inter alia*, the

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30 For instance see Warren, *op. cit.*, p. 474.

implications of a loss carry back rule applied exclusively to traded financial arrangements.

Submissions received from the mining sector have emphasised a concern over proposals to tax commodity derivatives before gains are realised. Those submissions have also drawn attention to the problem that can arise with TOFA's application (in the 'investment / financing' regime) of the 'retranslation' method of taxing non-hedge foreign exchange gains and losses during the (usually long) investment gestation periods before mining ventures return profits. In such situations a loss carry back arrangement would not be effective in ameliorating the potentially larger tax burden created during the gestation period by moving from a 'realisation' to a 'retranslation' tax accounting framework.

The academic literature has long recognised these types of problems. For instance, Warren[31] refers to the argument that it may be inequitable to tax certain investors in situations where they have received no return from a contingent-return asset. Various approaches to deal with such problems have been proposed. Warren refers to the simple possibility of delaying the payment of taxation in such circumstances until cash is received. Some commentators[32] have suggested that such an approach would create an undue incentive to excessively delay revenue payments and have proposed that the Auerbach method could be used to remove such incentive. Under the Auerbach method interest would be charged on delayed tax payments. Such a scheme may appear attractive on investment neutrality grounds (where it is applied to all projects in the economy with longer investment gestation periods). However, whether it could be sufficiently quarantined and whether it would be too complex to administer and to comply with are, of course, quite separate questions.

The above issues, and other considerations and possibilities in so far as they concern 'traded' financial arrangements (and certain foreign currency gains and losses), are currently under investigation.

Relatively Illiquid Markets

In the general context of considering the application of market value methods for tax purposes, some observers have alluded to potential difficulties in valuing certain non-market traded financial instruments on a mark-to-market basis. This could be a potentially significant consideration as, for instance,

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31 *Ibid*, p. 480.

32 For instance, Fellows, M. L., *Michigan Law Review*, 'A Comprehensive Attack on Tax Deferral', Vol. 88, 1990, pp. 737-738. Also see Vickrey, W., *op. cit.*, pp. 382-96 and Bucovetsky, M. W., *Canadian Tax Journal*, 'Inflation and the Personal Tax Base: The Capital Gains Issue', Vol. XXV, No. 1, 1977, pp. 77-107.

approximately 75 per cent of all derivatives (by value) are transacted over-the-counter rather than on official exchanges.

However some submissions have agreed with the proposal in the Issues Paper that where a market for a financial arrangement is illiquid or does not exist then market value accounting should be conducted on an estimated market value basis. The basis for this approach, as is claimed in some submissions, is that every financial instrument is made up of a set of cash flows which can be valued using estimation techniques in the absence of a quoted market value. In the case of many over-the-counter (interest rate and FX) derivatives, their prices can be estimated from yield curves and from spot and forward foreign exchange markets.

Some submissions have also indicated that in relation to ASX derivatives contracts cleared by the Options Clearing House indicative market closing quotes can be obtained from Registered Traders or the Theoretical Margining System may be used to calculate initial margins when markets are relatively illiquid. For warrants it has been suggested in submissions that the Black Scholes Model might be used to estimate fair value.

Thus, it is not evident that there will be insurmountable or widespread difficulty in measuring estimated market values for relevant traded financial arrangements. That said, further consultation will be desirable to review current valuation criteria and estimating procedures, particularly in relation to some over-the-counter derivatives. It is acknowledged, as is mentioned in one of the submissions, that valuation methodologies do evolve over time and that the tax authorities will need to be alert to such developments.

DEBT AND TRADED DEBT

Consider the tax treatment of discount and interest, the simplest of all the relevant cash flows. Currently the appropriate tax treatment of these cash flows is uncertain in some instances. TOFA will provide greater certainty and a solid foundation for different debt instruments as it requires the same tax treatment of functionally equivalent cash flows. Thus, under TOFA:

- Reflecting the fact that original issue discount[33] is part of the compensation paid by a borrower to a lender for the provision of credit,

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33 In its classical construction an original issue discount obligation requires the borrower to make a single repayment at maturity to the lender, or holder. Compensation to the lender takes the form of the 'discount' — the difference between the price at which the instrument was issued and the single repayment to be received when it is redeemed. See Sims, T.S., *Tax Law Review*, 'Long Term Debt. The Term Structure of Interest and the Case of Accrued Taxation', Vol. 47, 1992, p. 315. The Sims article explores whether interest should be accrued at the constant rate or adjusted to reflect changes in the yield curve. Under TOFA the accrual of discount and interest is to be calculated using a yield to maturity estimate. The Sims article basically endorses that approach.

the tax treatment of an original issue discount (OID) bond will, of course, be the same as that of a bond which returns regular periodic interest.

- The tax treatment of debt acquired in the market at a discount and an OID bond will be the same.
- There is a complete correspondence between the taxation treatment of short and long-term debt instruments.
- The tax treatment of debt and a debt future is identical in the trading regime (irrespective of whether the hedge test is met).
- The tax treatment of the returns from plain vanilla debt, contingent debt, and synthetic debt are all on an accruals basis[34] in the investment/financing regime.
- Traded Australian dollar denominated debt and traded foreign currency denominated debt are both market valued.
- Where a fixed interest bond is realised prior to maturity a base price adjustment may come into play to capture any gain or loss arising at that point of time because the then current market value of the bond may differ from its issue value.

It is proposed in TOFA that debt instruments (both Australian denominated and foreign currency denominated) which are **traded** should be taxed on a 'market value' basis while debt instruments used for **investment** purposes should be taxed on an 'accruals' basis for interest, subject to the option to apply market value treatment. It is important to recognise that in the case where a debt instrument is held to maturity for investment purposes the net gain or loss from the instrument will be the same irrespective of whether an accruals or market value tax accounting system is applied.

TOFA proposes market value treatment for traded debt and accruals treatment for debt used for investment/financing. As mentioned earlier, there is some uncertainty expressed in the submissions as to how 'trading' and 'investment/financing' will be defined in this context. In this regard it is useful to note that the recent AFMA *Accounting for Financial Instruments* survey (see footnote 24) suggests that the trading/investment distinction has long been employed in relation to debt securities in commercial accounting practices. Around 93 per cent of survey respondents indicated that the criteria used for recognition of a portfolio as investment is **the intention at the time of acquisition** and 37 per cent said such securities **must be held to its maturity**. The Joint ATO/Treasury Task Force will require additional information from

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34 One of the submissions recommends that commodity loans should also be tax accounted as debt securities: this would promote tax neutrality between debt securities and gold loans. Another submission considers that commodity based loans should not be covered by TOFA, but it adds that if they are included it is essential they should benefit from the hedging rules.

the corporate sector on the nature of current and prospective accounting practices in this area.

TRADED EQUITY AND THE TRADING REGIME

TOFA proposed that life insurance companies, superannuation funds and friendly societies and other conduits for investors would **not** be excluded from the proposed accruals taxation rules.

However, a number of the submissions received on TOFA, particularly those from the managed funds sector (broadly defined), have argued that market value tax accounting should not be applied to financial instruments bought and sold by conduits (broadly defined) that are acting as longer-term investment vehicles for those citizens who have invested their savings in pooled funds arrangements. Other submissions oppose market value treatment for traded equity. Generally it is evident from submissions that there is considerable uncertainty and anxiety about the likely extent and coverage of the definition of 'traded' financial arrangements.

A number of arguments are used in the submissions to support the exclusion of certain conduits from the reach of the traded equity regime.

First, it is suggested that certain fund managers are merely agents / trustees who act on behalf of individual small savers to raise — via scale efficiencies from pooling funds and investment expertise — the return to those individual savers. However, it is important to note here that comprehensive evidence of the superior returns to investors from such pooling is difficult to establish. Leaving that matter to one side for the moment, it is further argued that because direct equity holdings of tax payers who are individuals are excluded from TOFA (and individuals will continue to pay tax assessed on direct equity investments on a 'realisation' basis), functional horizontal neutrality principles would dictate that those individuals who invest indirectly through pooling arrangements should not be disadvantaged by being required to apply the 'mark-to-market' tax accounting method (therefore being liable to pay tax on unrealised gains).[35] As a variant to this view it might be considered undesirable from the broader national savings policy perspective to impose on pools of savings the added tax burden associated with the taxation of unrealised gains

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35 It has been suggested to us that the effect of applying a mark-to-market tax accounting method to all equities held by managed funds would imply that (compared to the realisation treatment currently applying) the rate of return would be reduced by 1.5 to 2 percentage points, resulting in a contraction in the size of the managed funds sector by one third to one half over a run of years. On this basis if one were to assume for hypothetical purposes only that, say, 10 per cent of equities held by managed funds were considered as traded equity, then the impact on the rate of return to an investor in such funds would only be in the order of 0.15 to 0.2 per cent, and the likely contractionary effect on the size of the managed funds sector would also be proportionately smaller.

as would occur under the market value approach. It is important to recognise, however, that horizontal neutrality also requires that the same economic activity be taxed in the same way, whether it occurs through a conduit or another business entity. Specifically, where a conduit undertakes a genuine trading activity that activity should, ideally, be taxed on a market value basis.

It has also been argued that those managed funds which are predominantly 'passive' in orientation should not be required to tax account on a mark-to-market basis in respect of the, normally, relatively small element of the overall portfolio which is devoted to short-term trading activity. It is argued that such trading activity is a subsidiary one, and undertaken solely to protect and rebalance portfolios (in the face of changes in market conditions) for the long-term welfare of the unit holders. It is said that the dominant purpose of these funds is that of 'long-term investment'. From a practical perspective, however, it is not obvious that it is easy to distinguish 'active' from 'passive' portfolios (although any useful suggestions in this regard would be welcomed).

Some submissions proposed that one way to remove passive managed funds from TOFA's traded equity regime would be to align the definition of traded equity with the existing or reformed 'trading stock' provisions of the ITAA. Of itself, the trading stock provisions would merely offer a device to do so, but, at least as currently constructed, they appear generally too arbitrary for such purposes, particularly where derivatives are involved.

Yet another approach might involve the use of techniques of financial analysis to develop a test (for instance, net exposures and / or turnover) to be applied to portfolios which would determine whether the portfolio is predominantly 'trading' or 'investing' in nature. The great virtue of such a test is that it would not discriminate on the basis of institution but by the substance of the transactions or portfolios involved. In a world where traditional distinctions between institutional forms are breaking down or being removed (eg, with insurance companies increasingly engaging in banking business) a generic approach in this area would be highly desirable. We would welcome suggestions / proposals in this area.

These and other possibilities (none of which are necessarily mutually exclusive) are currently being investigated as part of the consultative process. Until such investigations are further advanced and decisions taken it would be difficult to estimate the likely quantitative impacts of the introduction of the TOFA proposals on tax payments, equity prices, market liquidity or on the distribution of equity holdings as between direct (individual) holdings and pooled holdings.

TRADED DERIVATIVES AND DERIVATIVES USED FOR INVESTMENT PURPOSES

TOFA proposes that all traded derivatives be marked-to-market on revenue account and that derivatives used as hedges be subject to the hedge rules. In the TOFA proposals there is no 'investment' category for derivatives. This attitude rested partly on the view that the dominant derivative activities are trading and hedging and the fact that derivatives are generally held for a relatively short time rather than over the longer term.[36]

There is little reliable statistical material on the extent to which derivatives are used for 'investment' rather than for 'trading' or 'hedging' purposes.[37] A number of submissions asserted that where derivatives are used for an 'investment' purpose tax should be on a 'realisation' basis. Some submissions emphasise the protecting and rebalancing role that derivatives play in managing longer term managed funds and pooled trust portfolios — it is argued that this type of derivative activity has an inherent and dominant 'investment' role. Other submissions have reported that a substantial proportion of investors enter derivatives markets as an economical means of building a long-term position in particular shares: instead of closing out prior to expiry the derivative is exercised and the underlying shares are acquired.

Among the different classes of derivatives, swaps can have a relatively long duration and may therefore, in that limited respect, possess an attribute similar to that of an 'investment' arrangement. However, as swaps generally involve notional principal and the swapping of cash flows they — like some other derivatives — do not generally involve the outlay of an amount with the expectation of a return. It is noteworthy also that in commercial accounting practices there is generally no provision for a separate 'investment' category for derivatives.

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36 One of the submissions also emphasised that if the investment category was introduced, there would be some potential to catch non-financial derivatives held for non-trading / non-hedging purposes eg, options over real property.

37 In the 1995 AFMA survey, *op. cit.*, the following question was asked; 'Do you ever treat stand alone derivatives as investments (as opposed to hedging or trading transactions) and hence account for them on an accruals basis?' Only 6 per cent of respondents answered in the affirmative on the grounds that derivatives can replicate the same positions as those created by physical instruments and hence the same accounting treatment should apply. A third of the responses also supported the view that to apply mark-to-market treatment to derivatives used for investment purposes would increase the volatility of reported earnings. It seems likely that non-financial corporates (not covered by the AFMA survey) are the largest users of derivatives for investment purposes.

In so far as institutional investors are concerned, in recent surveys, in answer to the question 'Do you view derivatives as a separate asset class or an investment in their own right?', 19 per cent of respondents to an *International Investor* quarterly survey of corporate and public pension plan sponsors, which covered the US and Europe, said 'yes', while only 2 per cent of respondents to the *Watson Wyatt* survey (covering 44 pension funds in 10 European countries), covering Europe only, agreed. See *1996 Managing Financial Risk Yearbook* and 'Class Notes', *Risk* magazine column, by Charles Smithson, March 1996.

EXTENSION OF THE TRADING REGIME

In TOFA a question was raised as to whether the market value regime for financial arrangements should be extended to include other traded assets? On the face of it, it would appear possible to extend the coverage of the market value regime to include traded commodities (eg, gold), although attitudes on this aspect may well differ. This issue is under consideration and will be the subject of further consultation with industry representatives.

CONCLUDING COMMENTS

This presentation has been limited to exploring some of the more controversial aspects of an interrelated set of issues raised in industry submissions on the trading regime proposed in TOFA. At this stage of the consultation process it would be inappropriate to draw definitive conclusions on individual issues. We would, of course, welcome any additional suggestions or information that people might wish to provide to the joint ATO/Treasury team in light of the discussion of the outstanding issues covered in this paper.

In his assessment of TOFA, Mulvey[38] draws comparisons with the United States and emphasises that it is likely that the introduction of a system based on the Issues Paper would result in a comprehensive system where a treatment is specified for every financial transaction.

Edgar[39] compares the TOFA proposals with tax arrangements existing in Canada and concludes that 'in many respects these (Australian) proposals provide the only realistic reform option with any promise of effectively addressing the results of financial innovation'.

Edgar goes on to observe that:

> 'This conclusion leads back to the timing question and Professor Strnad's troubling suggestion that, absent fundamental tax reform of the taxation of capital income, any attempt to comprehensively address the tax treatment of financial instruments may be pointless. In contrast, Al Warren has concluded that a suitable goal for tax policy makers in a second best world is a reduction in the reliance on a distinction between fixed returns, which are taxed on an accruals basis, and contingent returns, which are taxed on a realisation or wait and see basis. Indeed, as a paradigm for the tax treatment of financial instruments and, by implication, the distinction between debt and equity investments, as well as options, this distinction has become untenable in the face of

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38 Mulvey, T. J., *op. cit.*

39 Edgar, T., 'The Tax Treatment of Interest and Financing Charges in a World of Financial Innovation: Where Should We Be Going', *Current Issues in Corporate Finance, Corporate Management Tax Conference*, Canadian Tax Foundation, Toronto, (forthcoming).

derivatives and the financial equivalences that these instruments can be used to create.

In this respect, the general approach evident in the recent proposals of the ATO and the Australian Treasury department for comprehensive accruals taxation of a wide range of financial arrangements may hold some promise. In fact, the Australian proposals may be the best that can be done in a second best world of tax cubbyholes.'

In summary, viewed from the broader perspective, and notwithstanding the particular difficulties raised in the submissions, it would seem that there is a degree of general support for the central framework outlined in TOFA. The more controversial aspects concern the practicability and the reach of certain of the proposals. Some submissions have suggested that the key issues be proceeded with while the more ambitious and contentious of the TOFA proposals be dealt with on a separate and slower track. At this point in the consultation process it is too early to judge what may be appropriate in that regard.

Australia's Participation In Support Arrangements For East Asian Adjustment Programs

This article outlines the support arrangements for IMF-supported programs in three East Asian economies and Australia's participation in them. It also provides details of the programs being implemented by each country.

INTRODUCTION

During the second half of 1997, three East Asian economies, Thailand, Indonesia and the Republic of Korea, suffered financial crises which led to their adopting substantial adjustment programs with the support of the International Monetary Fund (IMF), the World Bank and the Asian Development Bank (ADB). In each case, the IMF asked Australia and selected other countries to provide additional support. In response, Australia has agreed to provide support of up to $US1 billion for each country. There are, however, differences in the support arrangements and the countries that are participating in them.

THAILAND

On 20 August 1997, the IMF approved a stand-by credit arrangement for Thailand, authorising drawings of up to SDR2.9 billion[1] (about $US3.9 billion) over a 34 month period to support the Government's economic program. The stand-by credit is equivalent to 505 per cent of Thailand's quota in the IMF.[2] The arrangement is heavily front-loaded: the first tranche of SDR1.2 billion (about $US1.62 billion) was provided immediately while the second tranche of SDR600 million (about $US810 million) was released on 30 November. Subsequent disbursements are to be on a quarterly basis, subject to the attainment of performance targets and program reviews.

In addition to the funds to be provided by the IMF, a support package for a total of $US13.2 billion has been arranged from other international financial

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1 The SDR is a reserve asset currency used in the IMF's accounts. Its value is based on the average worth of five currencies (US Dollar, Deutsche Mark, Japanese Yen, Pound Sterling and French Franc). On 9 February 1 SDR was worth approximately $US1.35.

2 By comparison, in 1995 the IMF approved an 18 month stand-by credit for Mexico of up to SDR12 billion. This represented 688 per cent of Mexico's quota.

institutions and governments. The World Bank and the Asian Development Bank will contribute $US1.5 billion and $US1.2 billion respectively, with commitments of bilateral support from Australia, Brunei Darussalam, China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia and Singapore.[3] The funds provided by the multilateral development banks are being disbursed on separate timetables, while the bilateral support is being disbursed in parallel with the disbursements of the IMF's own funds, and following a request by the Thai authorities. The support funds from Japan are being provided in the form of loans by the Import Export Bank of Japan; the support funds from other countries are being provided as currency swaps between central banks.

Australia's support is through a currency swap agreement under which the Reserve Bank of Australia provides US dollars to the Bank of Thailand in exchange for Thai Baht. The exchange rate for unwinding the swap arrangement is set at the time of the original swap, to remove any exchange risk for the Reserve Bank. The return to the Reserve Bank from the swap is equal to the prevailing US Treasury bond rate. Individual swaps will be for a term of 6 months and may be rolled-over. The swaps are not counted as official development assistance. Reflecting the size and timing of the IMF disbursements, the first swap was for $US400 million and was made on 12 September 1997, a second swap of $US200 million was made on 17 December 1997.

INDONESIA

On 5 November 1997, the IMF approved a stand-by credit arrangement for Indonesia, authorising drawings of up to SDR7.338 billion (about $US9.9 billion) over three years, in support of Indonesia's stabilisation and structural reform program. The stand-by credit is equivalent to 490 per cent of Indonesia's quota in the IMF. The arrangement is substantially front-loaded. Of the total, SDR2.2 billion (about $US3.0 billion) was made available immediately, and a further SDR 2.2 billion is to be made available on 15 March 1998, provided that end-December performance targets are met and the first review of the program is successfully completed. Subsequent disbursements, on a quarterly basis, are subject to the attainment of performance targets and program reviews.

In addition to the IMF funding, the World Bank and the Asian Development Bank agreed to provide loans of $US4.5 billion and $US3.5 billion respectively, as well as technical assistance.

Several governments were invited by the IMF and Indonesia to provide additional support if necessary for the Indonesian program. However, taking

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3 Japan ($US4 billion), Australia, China, Hong Kong SAR, Malaysia, Singapore ($US1 billion each), Brunei Darussalam, Indonesia and Korea ($US0.5 billion each).

account of the substantial funds to be provided by the international financial institutions, and Indonesia's own external reserves, it was not envisaged that these additional funds would be needed to be provided in parallel with the IMF's own disbursements, as had been arranged for Thailand. Instead, the contributions by the international financial institutions, together with part of Indonesia's external reserves, have been regarded as constituting a first line of financing of the order of $US23 billion, while bilateral support is regarded as forming a second line which may be activated in the event that the first line proves inadequate.

In accordance with this approach, Australia, China, Hong Kong SAR, Japan, Malaysia, Singapore and the United States[4] have indicated that in the event that unanticipated adverse external circumstances create the need for additional resources to supplement Indonesia's reserves and the resources made available by the IMF, they would be prepared to consider making available supplemental financing in support of the program.

The second tier financing for Indonesia has not yet been called on. It is intended that Australia's support, if required, would remain at all times conditional upon adherence to the IMF program, would be provided through a government to government loan and would be repaid no later than the conclusion of the support program.

THE MANILA FRAMEWORK

A meeting of Finance and Central Bank Deputies was held in Manila on 18-19 November 1997 to develop a concerted approach to restoring financial stability in the region.[5] The meeting agreed on the need for a new framework for enhanced Asian regional cooperation to promote financial stability, including initiatives for (a) a mechanism for regional surveillance to complement global surveillance by the IMF; (b) enhanced economic and technical cooperation particularly in strengthening domestic financial systems and regulatory capacities; (c) measures to strengthen the IMF's capacity to respond to financial crises; and (d) a cooperative financing arrangement that would supplement IMF resources.

In connection with item (c), deputies recognised their common interest in strengthening the capacity of the IMF to carry out its central responsibilities for

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4 Japan, Singapore ($US5 billion each), the United States ($US3 billion), Australia, China, Hong Kong SAR, and Malaysia ($US1 billion each).

5 Attended by representatives from Australia, Brunei Darussalam, Canada, China, Hong Kong SAR of China, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand and the United States, together with representatives from the International Monetary Fund, World Bank and Asian Development Bank. Canada attended in its capacity as current APEC Chair.

the international monetary system by ensuring that it can mobilise substantial assistance quickly in support of strong macroeconomic and financial programs, and provide where appropriate, the predominant share of official financing in situations of severe financial crisis. They also urged the IMF to constructively examine the establishment of a new mechanism to provide short-term financing to augment an exceptional stand-by or extended arrangement in the light of the globalisation of financial markets and the increased scale of private capital flows.

Subsequently, on 17 December, the IMF agreed to establish a Supplemental Reserve Facility along the lines recommended under this component of the Manila meeting. This facility is available to a member country experiencing exceptional balance of payments difficulties due to a large short-term financing need resulting from a sudden and disruptive loss of market confidence reflected in pressure on the capital account and the member's reserves. It provides resources which will be committed for up to one year and be generally available in two or more tranches. Countries borrowing under the Supplemental Reserve Facility must pay a surcharge above the rate of charge on IMF loans.

In connection with item (d), deputies agreed on the need to develop a cooperative financing arrangement for the region that would supplement the resources provided by the IMF and other international financial institutions. Under this arrangement participants could provide, in consultation with the IMF and on a case by case basis, supplemental financial resources for IMF-supported programs. Such support could be extended in exceptional circumstances to augment a country's reserves after making use of the resources made available by the IMF, which should as a first recourse take full advantage of the flexibility provided under the exceptional circumstances clause and any new financing mechanisms. Where necessary, participants would seek legislative authorisation to participate in this arrangement. Other IMF members could be encouraged to join in providing supplemental finance in individual cases, as appropriate.

The outcome of the Manila meeting — the 'Manila Framework' — was endorsed by APEC Economic Leaders at their meeting in Vancouver, Canada on 25 November 1997. A meeting of Finance Ministers of ASEAN countries and Australia, China, Hong Kong SAR, Japan, Korea and the United States, held in Kuala Lumpur on 2 December 1997,[6] also endorsed the Manila Framework and agreed upon its rapid implementation.

The Manila Framework was influential in determining the structure of the support arrangements subsequently agreed for Korea.

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6 The Treasurer, the Hon. Peter Costello MP, led the Australian delegation at this meeting.

KOREA

On 4 December 1997, the IMF approved a three-year stand-by credit arrangement for Korea equivalent to SDR15.5 billion (about $US20.9 billion) in support of the Government's economic and financial program. The stand-by credit arrangement represented 1939 per cent of Korea's quota in the IMF. A first tranche of SDR4.1 billion (about $US5.5 billion) was made immediately available under the IMF's standard terms. Second and further amounts of SDR2.6 billion (about $US3.5 billion), SDR1.5 billion (about $US2 billion) and SDR1.5 billion were made under the Supplemental Reserve Facility on 18 December 1997, 30 December 1997 and 8 January 1998 respectively.

In addition to the IMF funding, the World Bank will provide up to $US10 billion in support of specific structural reform programs in Korea, while the Asian Development Bank is to provide up to $US4 billion in support of policy and institutional reforms. In addition, a second line of defence was arranged under which Australia, Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States[7] announced that they are prepared to supplement Korea's reserves and resources made available by the IMF and other international institutions, in the event that unanticipated adverse external circumstances create the need for additional resources.

In response to continuing pressures on its foreign exchange reserves, Korea announced a revised program on 24 December 1997. In conjunction with this announcement, the bilateral supporters announced a willingness to activate up to $US8 billion (around a third) of the total supplemental financing in response to the revised adjustment program. Discussions were then commenced on detailed arrangements for the provision of bilateral support, including the cost to Korea of the funds. It is intended that the support provided by the various participants will be on broadly similar terms and timing. Australia proposes to provide its support by way of a government to government loan. As at 11 February, no bilateral funds had been called on.

On 28 January 1998, it was announced that the Korean Government and a group of thirteen leading international banks had reached agreement on a plan to extend the maturities of approximately $US24 billion of short-term credits to the Korean banking system. The bank refinancing plan is designed to help solve Korea's short-term liquidity problem and supports the country's economic program. This announcement has brought some improvement to the situation in Korea.

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7 Japan ($US10 billion), the United States ($US5 billion), France, Germany, Italy, the United Kingdom ($US1.25 billion each), Australia, Canada ($US1 billion each), Belgium, the Netherlands, Sweden, Switzerland ($US1.25 billion between them) and New Zealand ($US0.1 billion).

INDIVIDUAL COUNTRY PROGRAMS

Some details of the IMF-supported programs for the three countries are set out below.

Thailand

The Thai Government's 1997-2000 policy framework, which the IMF stand-by credit supports, is designed to restore confidence and economic stability at an early stage and lay the foundation for sound growth over the medium term. The measures under the program are designed to bring about early shifts in domestic saving-investment balances that will underpin a reduction in the current account deficit. Additional structural measures to reinforce the outward orientation of the economy are an important part of the package to bring about a recovery of the economy.

On 25 November 1997, Thailand set out the framework for continuing its adjustment program in its second Letter of Intent to the IMF. The major measures in the program are set out below.

Fiscal Policy

- Ensure a consolidated public sector surplus of 1 per cent of GDP in 1997-98.
  - Increase excise on, among other things, beer, spirits, tobacco and automobiles and increase import duty on cars and luxury goods. Additional expenditure cuts in a variety of areas.
- Aim for a balanced financial position for non-financial public enterprises.
  - The government has curtailed lower priority investment spending with the principal cuts being in the investment programs of the utilities and Thai Airways.
  - Adjustments are being made in all utility and state enterprise charges to reflect the larger depreciation of the baht, except for bus and rail fares which continue to be set below costs for the time being for social reasons.
- Fiscal developments need to be kept under constant review and reassessed at the time of the second program review.
- Wage policy will continue to be supportive of the objective of minimising the impact of the depreciation of the baht on prices.
  - The increase in the minimum wage for the year 1998 has been limited to 2-3 per cent.
  - To ensure an elastic and efficient tax structure there will be a review of the tax system.

Monetary Policy

- Interest rates will principally be set with the objective of helping stabilise the exchange rate and restore confidence in domestic financial assets.
- Aim to contain the expansion of reserve money growth and Net Domestic Assets of the Bank of Thailand (BOT).

External Sector Policies

- Gross international reserves of the BOT to be maintained at a level of at least US$23 billion at end-1997, equivalent to about four months of imports.
- Establish new performance criteria for the net international reserves of the BOT as well as for external sector borrowing.
- Remove the restrictions on purchases and sales of baht by non-residents as well as the restrictions on baht-denominated borrowing by non-residents on the sale of debt instruments and equities for baht.

Financial Sector Restructuring

- Restructure the 58 suspended finance companies. Key steps include:
  - the determination by the Financial Restructuring Agency (FRA) on the status of the 58 suspended finance companies by the end of November 1997;
  - the disposal by the FRA of all good assets of closed finance companies as soon as possible thereafter; and
  - the completion of disposal of all assets by the FRA by the end of 1998.
- Bring regulatory framework of Thailand's financial system fully in line with best international practices by the year 2000. Key steps include:
  - the early tightening of loan classification rules and their progressive strengthening over the program;
  - the introduction of timetables for the recapitalisation of all undercapitalised financial institutions during 1998;
  - the streamlining of bankruptcy procedures; and
  - the reaffirmation of disclosure and auditing requirements for all financial institutions.
- Full liberalisation of the foreign equity investment market over a ten year period.

Privatisation, Social Services and Legal Framework

- Undertake a program of privatisation. The majority-owned state enterprises which are already corporatised will be the first to be privatised.
- Market conditions permitting, the government's stake in the national airline and Bangchak petroleum company will be reduced to well below 50 per cent by mid-1998.
- By June 1998, the Government will submit to Parliament the necessary legislation to facilitate the privatisation of the state enterprises which are not currently coporatised.
- Expand the reach of social services.
- Bring the legal and regulatory framework into line with international standards and consistent with the smooth implementation of the overall economic program.
  - Financial sector legislation has already been amended as part of the restructuring exercise.
  - The Currency Act will be amended to modernise the regulatory framework for central banking operations.
  - The Bankruptcy Law and Civil and Commercial Code will be amended to facilitate the implementation of the financial restructuring framework.

Indonesia

The Government's three year program is designed to stabilise exchange market conditions, ensure an orderly adjustment of the external current account in response to lower capital inflows and lay the groundwork for a resumption of sustained growth.

On 15 January 1998, the IMF announced that the Government of Indonesia and the IMF had reached agreement on a much strengthened economic program. While many of the measures announced were new, others had been previously announced but would now be accelerated. The major measures included in Indonesia's Second Letter of Intent to the IMF are listed below.

Fiscal Policy

- Ensure a balanced budget which avoids any recourse to domestic financing.
- Strengthen the budget introduced on January 6 by adopting new measures.

- Eliminate subsidies on fuel and electricity and further increase excises on alcohol and tobacco (above the increases already announced).
- Remove all VAT exemptions (apart from those on capital goods or those explicitly mandated by law) and review all VAT exemption arrangements regularly.
- Introduce 5 per cent local sales tax on gasoline and increase the number of goods subject to the luxury sales tax.
- Increase the proportion of the market value of land and buildings assessable for tax to 40 per cent for plantations and forestry property.

- This corresponds to a deficit under IMF accounting conventions of about 1 per cent of GDP.
- Improve the tax administration and the structure of the tax system.
- Move to a comprehensive and transparent system to report on the public sector financial position, particularly including quasi-fiscal operations.
  - The Government will accelerate provisions under the Nontax Revenue Law of May 1997 which require all off-budget funds to be incorporated in the budget within five years. The accounts of the Investment Fund and the Reforestation Fund will be incorporated in the central government budget at the beginning of the 1998/99 fiscal year.
- Public sector projects.
  - Cancel 12 major infrastructure projects.
  - Discontinue immediately any special tax, customs or credit privileges granted to the National Car. Implement ahead of schedule the ruling of the World Trade Organisation (WTO) dispute panel.
  - Phase out by 2000 the local content program for motor vehicles.
  - Discontinue immediately any budgetary and extrabudgetary support and credit privileges granted to IPTN projects.

Monetary and Exchange Rate Policy

- Bank Indonesia (BI) is raising interest rates on central bank certificates to bring them into line with conditions prevailing in the money market.
- BI to provide full autonomy to state banks to adjust rates on credit and deposit liabilities, so that their rates could also reflect developments in money and credit markets.

- The Government is to introduce a temporary program under which credit will be provided to small-scale enterprises through the state banks at subsidised interest rates.
- A facility will be established to extend credit to exporters at commercial terms.
- BI has established, in consultation with the Fund, a financial program for 1998 to contain inflation to less than 20 per cent via limiting the growth of broad money.
- Foreign exchange intervention to stabilise and support the exchange rate with the scale of intervention determined in close consultation with IMF staff. Any sterilisation of exchange market intervention will be strictly limited.
- BI will immediately be given autonomy in formulating and implementing monetary policy.

Financial Sector Restructuring

- On 1 November 1997, sixteen insolvent banks were closed. Other banks to be supervised by the central bank and rehabilitation plans to be prepared.
- BI to establish, and expeditiously implement, uniform, transparent and equitable rules for resolving liquidity and solvency problems, of private banks. The central bank will provide liquidity support to banks.
- BTN will become a subsidiary of BNI and four state banks will be merged. The state banks will not be recapitalised except in conjunction with privatisation and, until privatisation, the state banks will perform according to criteria detailed in performance contracts.
- Amend the banking law to remove the limit on private ownership.
- Formulate and implement a plan for interim operations of the four merging banks including a timetable for the final merger. Foreign strategic partners will be sought for the merged bank.
- Establish a timetable for privatisation for all the state banks.
- All state banks (including those that will not be merged) to conduct portfolio, systems, and financial reviews to internationally acceptable standards using teams from internationally recognised audit firms.

Strengthening the legal and supervisory framework for banking

- Capital adequacy rules are being enforced and in the case of the non-foreign exchange banks, minimum capital requirements will be increased gradually to put them on par with the foreign exchange banks.

- New loan classification and provisioning guidelines have been prepared and loan loss provisions will be made fully tax-deductible by end-March 1998.
- The reporting and monitoring procedures for foreign exchange exposure of banks have been upgraded and the limits strictly enforced.
- The central bank's capacity for risk-based supervision will be further strengthened with technical assistance from the IMF and the World Bank. BI has established a program for divestiture of its interests in private banks, and has already made substantial progress towards this goal.
- Action plans to improve the legal framework will be prepared by the end of 1998 with the help of the IMF and the World Bank.
- All banks to be required to publish audited financial statements annually. BI to review the adequacy of data provided in banks' condensed biannual balance sheets with a view to improving the dissemination of information on the financial condition of individual banks.
- Lift restrictions on branching of foreign banks and submit to the Parliament a draft law to eliminate restrictions on foreign investment in listed banks by June 1998.
- Eliminate all restrictions on bank lending, other than those required for prudential reasons, or those to support co-operatives and small scale enterprises.

Structural Reforms

- Foreign trade and investment will be further liberalised, domestic activities further deregulated and the privatisation program accelerated. Measures to be taken to alleviate poverty.
- In November BULOG's import monopolies over wheat and wheat flour, soybeans and garlic were eliminated. Tariffs (limited to 20 per cent or less and to be reduced to 5 per cent by 2003) were introduced on all these products.
- The medium-term tariff reduction program was extended to cover chemicals and metal products. By 2003, the maximum tariff on these products will be brought down to the medium-term target of 10 per cent.

Foreign Trade and Investment

- Agricultural goods to be included in the general program of tariff reduction. Tariffs on all food items have been cut to a maximum of 5 per cent, while local content regulations on dairy products have been abolished.

- Tariffs on non-food agricultural products will be reduced by 5 percentage points and will be reduced to a maximum of 10 per cent by 2003.
- On 1 February, all import restrictions on all new and used ships were abolished. All other remaining quantitative import restrictions, other than those which may be justified for health, safety, environment and security reasons, and other non-tariff barriers that protect domestic production, will be phased out by the end of the program.
- Phase out punitive export taxes, although in some cases these will be replaced by resource rent taxes.
- Eliminate all other types of export restrictions, such as quotas, by the end of three years. The only exceptions will be for those restrictions imposed for health and security reasons, as well as time-bound, temporary, measures introduced in the event of occasional domestic shortages.
- The Government is to issue a revised and shortened negative list of activities closed to foreign investors.

Deregulation and Privatisation

- Deregulate and privatise the economy to promote domestic competition and expand the scope of the private sector.
- Dissolve all existing formal and informal restrictive marketing arrangements.
- Enforce the prohibition of local taxes at all levels on export goods.
- Develop and implement a one-year program for abolishing taxes on inter-provincial and inter-district trade.
- BULOG's monopoly to be limited to rice.
- A public sector and expenditure review (carried out in collaboration with the World Bank) will result in a comprehensive program to improve fiscal efficiency and restructure state-owned enterprises and strategic industries.
- Oversight of public enterprises moved to the Ministry of Finance from line Ministries and a Privatisation Board has been established. A framework for the management and privatisation of government assets to be established.
- The Government aims to accelerate privatisation and to take decisive action to restructure or close poorly performing enterprises.
- For those enterpises remaining within the public portfolio, clear profit and performance targets will be established, which will be made public and reported on annually.

Social Safety Net

- The government plans to introduce community based work.
- Efforts to target assistance to the poor will be intensified.
- Poverty eradication and more equal income distribution are to be major themes of the next five-year development plan, which begins in 1999.
- Budgetary allocations for social spending will be increased.

Environment

- Draft and establish implementation rules for the new environmental law by March 1998.
- Review fees and concessions, and implement performance bonds and reduce land conversion targets to environmentally sustainable levels by the end of 1998.
- Accelerate its program for the conversion to cleaner fuels.

Korea

The objectives of the program for Korea include: building the conditions for an early return of confidence so as to limit the unavoidable slowdown of GDP growth in 1998, followed by a recovery towards potential in 1999; containing inflation at or below 5 per cent; increasing international reserves to more than two months of imports by the end of 1998; creating a comprehensive strategy to restructure and recapitalise the financial sector, and make it more transparent, market oriented, better supervised and free from political interference in business decisions; implementing measures to improve corporate governance; accelerating liberalisation of capital account transactions; furthering trade liberalisation; improving the transparency and timely reporting of economic data.

On 24 December 1997, the Korean Government, in consultation with representatives of the President-elect, agreed to intensify and accelerate the macroeconomic policy and structural reform adjustments. The major measures included in Korea's Second Letter of Intent to the IMF are listed below.

Fiscal Policy

- Tighten fiscal stance by 1 to 1.5 per cent of GDP to achieve at minimum budget balance, or preferably, a small surplus.
  - Increase VAT coverage and remove exemptions.
  - Widen the corporate tax base by reducing exemptions and certain tax incentives.
- Widen the income tax base by reducing exemptions and deductions.

- Increase excises, luxury taxes and transportation taxes.
- Reduce current expenditures, particularly support to the corporate sector.
- Reduce low priority capital expenditures.

Monetary Policy

- Raise call rates to 30 per cent, or above if needed, to stabilise the won.
- Eliminate interest rate ceiling.
- Sterilise activated amounts from W11.3 trillion liquidity support package provided to the financial sector, as needed to keep overall liquidity sufficiently tight to maintain interest rates at adequate levels.

Financial Restructuring

- Financial crisis.
  - Establish a high-level task force chaired by the Ministry of Finance and Economy to coordinate development and implementation of a strategy to address the present financial crisis.
  - Bank of Korea to limit its funding of financial institutions to short-term liquidity support.
  - Establish a high-level team led by the Ministry of Finance and Economy, to enter into negotiations with foreign commercial bank creditors to facilitate the extensions of current outstanding short-term debt and to prepare access to medium-term borrowing.
  - Bank of Korea will suggest that banks and merchant banks voluntarily cease payment of all dividends through June 1999.
- Insolvent merchant banks.
  - Identify and suspend 14 insolvent merchant banks.
  - All merchant banks to submit rehabilitation plans.
  - Agree upon criteria for judging rehabilitation plans of suspended merchant banks.
  - Develop procedures for revocation of licenses of suspended merchant banks that fail to submit rehabilitation plans, whose plans are rejected, or who fail to implement approved plans.
  - Hire internationally-recognised firms and experts to conduct due diligence of the balance sheets of merchant banks and to assess rehabilitation plans.
- Strengthen commercial banks.

- Place Korea First Bank and Seoul Bank under intensive supervision by Bank Supervision Office.
- Amend legislation to enable the supervisory body to write down the equity of current owners to absorb existing losses.
- Hire outside experts to develop privatisation strategy and identify bad assets for transfer.
- Issue clear guidelines governing foreign investment in domestic financial institutions.
- Require submission of plans for capital restoration from all commercial banks not meeting Basle capital standards as of 31 March 1998.

- Strengthen deposit insurance scheme.
- Enact legislation to strengthen supervision.
  - Enact Financial Reform Bill.
  - Submit legislation to give the supervisory authority clear authority to close insolvent institutions.
  - Review bankruptcy law and prepare draft legislation to streamline bankruptcy procedures.

Capital Account Liberalisation

- Equity market.
  - Raise ceiling on aggregate foreign ownership of listed Korean shares from 26 per cent to 50 per cent and the individual ceiling from 7 per cent to 50 per cent.
  - Increase the aggregate ceiling on foreign investment in Korean equities to 55 per cent on 30 December 1997, with the elimination of the aggregate ceiling by the end of 1998.
  - Allow foreign investors to buy equity in the stock markets (as well as over the counter) for the purpose of friendly mergers and acquisitions, without limits.
- Bond market.
  - Allow foreign investment in the guaranteed corporate bond market (for maturities greater than three years) with limits at 10 and 30 per cent for individuals and in aggregate respectively.
  - Eliminate all limits on foreign investment in non-guaranteed bonds issued by small and medium sized companies.
  - Raise aggregate limits for foreign investment in non-guaranteed corporate (convertible) bonds from 30 to 50 per cent.

- Eliminate all individual limits for foreign investment in corporate bonds.
- Allow foreigners to invest in government and special bonds, up to the aggregate ceiling of 30 per cent.
- Eliminate all foreign investment ceilings for the government, special, and corporate bond markets, including for maturities of less than 3 years.

- Money market.
  - Set timetable, in consultation with IMF mission, to permit unlimited foreign investment in domestic money markets instruments.
  - Obtain National Assembly approval to reactivate treasury bill issues.
- Corporate borrowing.
  - Lift the restriction on foreign borrowing of over 3 years maturity.
  - Raise the maximum term of deferred payment credit for imports to 180 days.
  - Consult with IMF mission on lifting remaining maturity restrictions on foreign borrowing by corporations.
- Financial institutions.
  - Allow foreign banks and brokerage houses to establish subsidiaries.
- Foreign borrowing.
  - Place prudential controls on short-term external borrowing of financial institutions.

Exchange Rate and Reserve Management Policy

- Abolish daily exchange rate band.
- Limit foreign exchange intervention to smoothing operations.
- Raise interest rate on Bank of Korea foreign exchange loans to commercial banks as high as needed to conserve reserves.
- Strictly monitor need for Bank of Korea foreign exchange loans to banks unable to rollover foreign currency debt.
- Strictly monitor Bank of Korea foreign exchange loans so as to ensure use of funds limited to debt repayment.
- Eliminate interest rate ceiling on resident foreign exchange accounts above 3 months on 22 December 1997. Followed by the elimination of

interest rate ceiling for resident foreign exchange accounts below 3 months on 31 December 1997.

Trade Policy

- Eliminate trade-related subsidies.
- Import liberalisation.
  - Phase out Import Diversification Program.
  - Reduce the number of items subject to adjustment tariffs from 62 to 38.
  - Harmonise import certification procedures with WTO standards and strengthen implementation.
- Financial services liberalisation agreed with the OECD as part of commitments to WTO.

Labour Market Policies

- Measures to improve labour market flexibility.
  - Announce the Government's views on labour markets and wages issues, as well as on a fair sharing of the burden between employers and workers in the case of labour redundancies.
- Measures to strengthen government employment insurance system.
- Measures to ease burden of layoffs and expedite redeployment.

Australian Net Private Wealth

Treasury has published annual estimates of Australian net private sector wealth since the Summer 1990 Economic Roundup. This article updates previous estimates, and provides preliminary estimates for net private sector wealth as at June 1997.

The market value of Australian net private sector wealth grew by 11.8 per cent in the year to June 1997, representing the highest growth rate experienced since 1989. In real terms (ie after allowing for inflation), wealth grew by 10.3 per cent, while per capita real wealth grew by 9.1 per cent. These are also at the highest rates of growth since 1989.

MEASURING WEALTH

The wealth estimates presented in this article are a measure of the net ownership of domestic and foreign assets by the Australian private sector. The estimates relate to financial and physical wealth only and do not make any attempt to value natural resources or human capital. One-off estimates of the value of wealth including these broader categories have been constructed by the World Bank (1995) and the ABS (1995).

The Treasury estimates of Australian net private sector wealth are constructed using the inventory approach,[1] largely following the methodology of Callen (1991). This approach involves aggregating across different asset types and adjusting for the public and/or foreign ownership[2] of assets. The estimates are largely based on Australian Bureau of Statistics' estimates of the dwelling stock, capital stock, stock of consumer durables and Australia's international investment position. Reserve Bank of Australia (RBA) data are used for holdings of public securities and RBA liabilities. Some private sector data and estimates from previous studies also enter the estimates.

The calculation of aggregate wealth below is simplified greatly by the consolidation of the private household and business sectors. This consolidation

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1 Other approaches for constructing estimates of wealth include the portfolio and estate methods. Piggott (1987) provides a useful summary of these approaches.

2 The wealth estimates presented in this article measure wealth owned by Australians, regardless of where that wealth is located. For example, an Australian-owned factory located overseas contributes to Australian net private wealth, while an overseas-owned factory located in Australia does not.

does, however, result in loss of detail on the liabilities of these two sectors.[3] As a result, the data on asset types contained in the attached tables and charts should not be used to infer relative ownership by either the household or business sectors or the level of personal wealth.

Treasury estimates of net private sector wealth are calculated on both a market value and replacement cost basis. The market value of an asset represents the value that would be obtained if assets were to be sold in current market conditions. The replacement cost of an asset is the cost of reproducing that asset.

A number of assumptions and approximations are required to construct the estimates, particularly for the current year where much of the data remains provisional. Together with inevitable revisions to historical data, these limitations imply that the estimates should be interpreted as indicative of trends and broad orders of magnitude, rather than precise estimates.

MOVEMENTS IN AUSTRALIAN PRIVATE SECTOR WEALTH IN 1997

The estimates in Tables 1(a), 1(b), 1(c) and 2 indicate that net private sector wealth continued to grow strongly during the year to June 1997.

Through the year to June 1997, Australian net private sector wealth at market value grew by 11.8 per cent in nominal terms, 10.3 per cent in real terms, and 9.1 per cent in real per capita terms.

In current prices, Australian net private sector wealth was approximately $2,156 billion at market value, and $1,815 billion at replacement cost on 30 June 1997. This represents around:

- $116,400 per Australian ($98,013 on a replacement cost basis); and
- 4.2 times the value of the annual nominal gross domestic product of the economy (3.6 times on a replacement cost basis).

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3 Consolidating the private household and business sectors implies that the bulk of financial instruments held by households (such as bank deposits, debt instruments and superannuation) are netted out in the analysis.

Chart 1: Growth in Australian Net Private Sector Wealth at Market Value

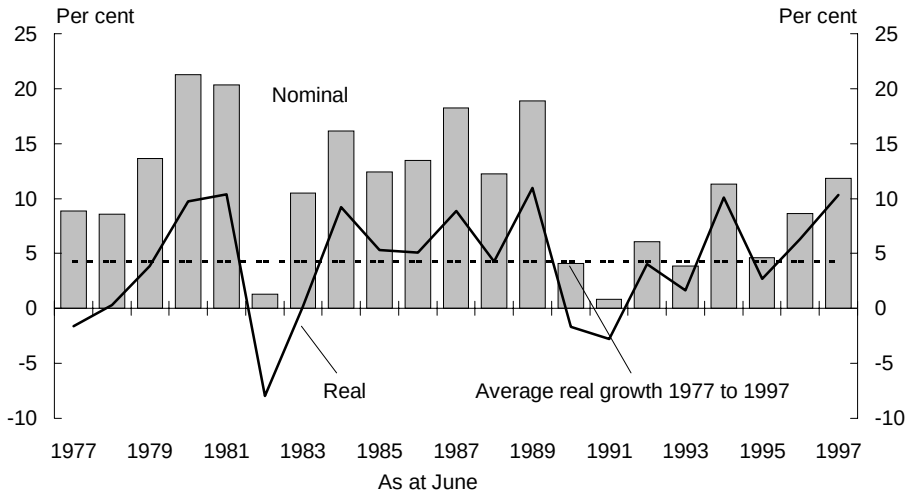


Chart 1 shows growth in Australian net private sector wealth at market value. The rate of growth of both nominal and real wealth increased during the year to June 1997. Real wealth continued to grow faster than its twenty year average, as did nominal wealth despite low inflation by historical standards.

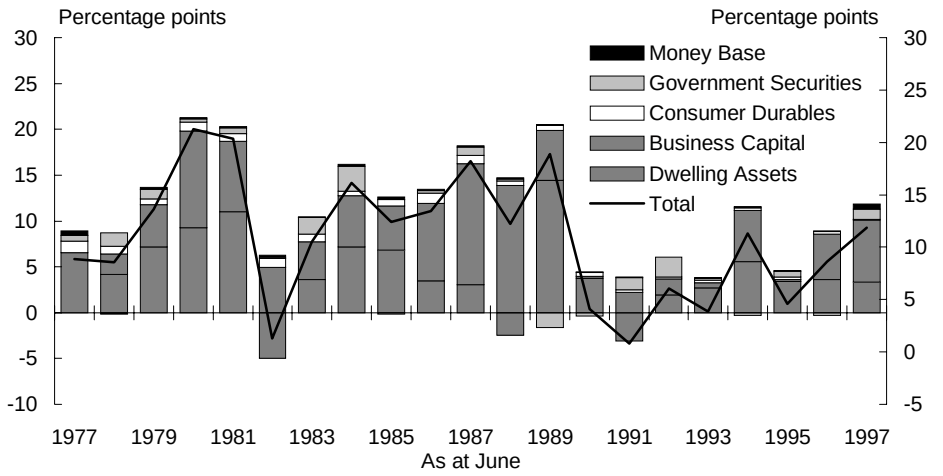
The main factor contributing to the growth in wealth through the year to June 1997 was strong growth in business capital at market value,[4] resulting mainly from rising stock market prices during 1996-1997. The growth in business capital was offset to some extent by an increase in foreign ownership of Australian assets.

The rate of growth in the market value of dwelling assets during the year to June 1997 remained broadly unchanged from the previous year, with growth in the market value of dwelling assets reflecting moderate increases in the prices of established houses and continued growth in the dwelling stock. Increases in the market value of government securities also made a small positive contribution to growth, as did growth in the money base and consumer durables.

The contributions of the various components of private sector wealth to growth in nominal private sector wealth at market value are shown in Chart 2, below.

4 Business capital is calculated by adding business assets, Australian investment abroad and foreign liabilities in the tables.

Chart 2: Contributions to Growth in Nominal Australian Net Private Sector Wealth at Market Value



- Growth in business capital contributed 6.8 percentage points to growth in the market value of private sector wealth during the year to June 1997, up from 4.3 percentage points during the year to June 1996.
- Dwelling assets contributed 3.3 percentage points to growth in the market value of wealth during the year to June 1997.
- Holdings of government securities contributed 1.1 percentage points to growth in the market value of wealth during the year to June 1997.

Valuation Ratios for Australian Net Private Wealth

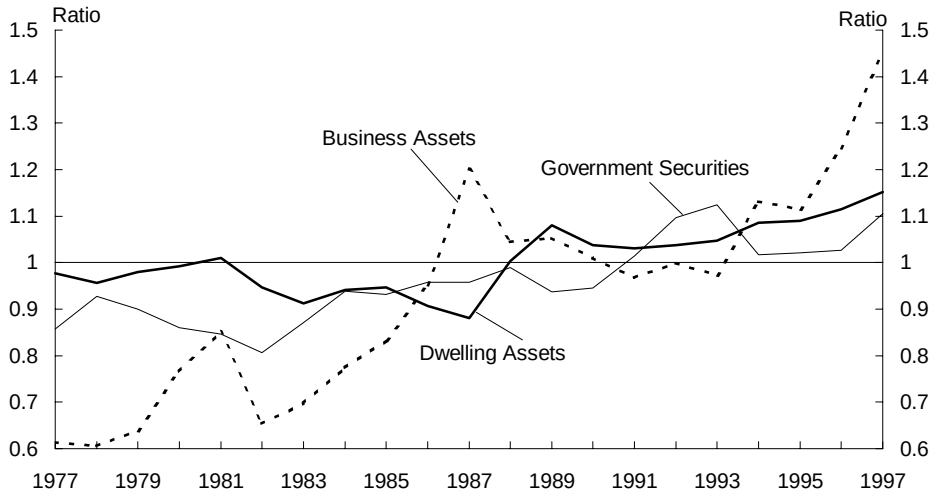
Valuation ratios for individual components of wealth (Table 3) provide a measure of the relationship between the market value and the replacement cost for that component. For dwelling assets, the valuation ratio represents the ratio between the price of established houses and the cost of building new dwellings. The valuation ratio for business assets is the ratio between the price of existing business assets (as valued by the stock market), and the price of new business investment. The valuation ratio for government securities is determined by current interest rates relative to the interest rates at the time the securities were issued. If interest rates fall relative to the interest rate at the time of issue, then the value of the security rises.

Changes in market conditions for particular components of wealth (for example, dwellings) will affect the valuation ratio for that component. Changes in market sentiment and business confidence will lead to changes in individual valuation ratios and fluctuations in the total market value of private sector wealth. The value of wealth at replacement cost is not directly affected by these changes in sentiment or confidence, and hence is more stable.

Chart 3 shows valuation ratios for selected components of wealth and indicates that all three valuation ratios increased during the year to June 1997.

- The valuation ratio for business assets increased substantially during the year to June 1997. As in the preceding year, this increase reflected continued growth in stock market prices coupled with little change in the price of new business investment.
- The valuation ratio for government securities increased moderately due to lower interest rates (rising bond prices) during 1996-1997.
- The valuation ratio for dwelling assets rose slightly, reflecting a rise in the price of established houses relative to the price of new dwelling investment.

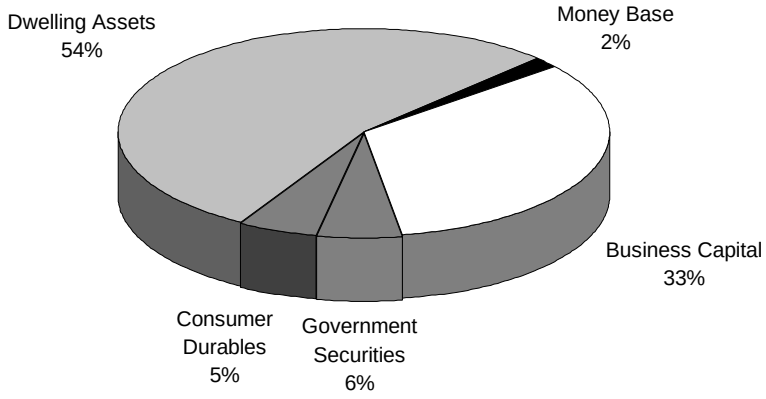
Chart 3: Valuation Ratios for Selected Components of Wealth



Composition of Australian Net Private Wealth by Type of Asset

Chart 4 shows the composition of Australian net private sector wealth (at market value) by asset type as at 30 June 1997. The composition of wealth changed slightly during the year to June 1997, with the share of business assets increasing by around 3 percentage points to 33 per cent and the share of dwelling assets decreasing by a similar amount to 54 per cent (the share of dwelling assets averaged 58 per cent between 1990 and 1996). The shares of other components of net private sector wealth remained relatively stable, with government securities, consumer durables and the money base representing 6, 5 and 2 per cent respectively of assets owned by the private sector.

Chart 4: Composition of Australian Net Private Sector Wealth by Asset Type



Foreign investment in Australia (FIA) and Australian investment abroad (AIA) are excluded from Chart 4. Since FIA is positive, the stock of business capital located in Australia will be larger than is suggested by the chart.

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Table 1(a): Nominal Private Sector Wealth at Market Value

As at June -	Dwelling Assets	Business Assets	Consumer Durables	Govern-ment Securities	Money Base	Australian Investment Abroad	Foreign Liabilities	Total Wealth
				($ billion)				
1960	21.4	27.3	5.3	7.4	1.8	0.4	-3.2	60.5
1961	23.0	27.5	5.4	7.5	1.7	0.5	-2.9	62.7
1962	25.3	27.7	5.4	8.3	1.8	0.4	-3.0	66.0
1963	26.4	29.9	5.7	9.2	1.8	0.6	-3.7	70.0
1964	30.4	36.2	5.9	9.8	2.1	0.7	-5.0	80.1
1965	33.3	33.4	6.2	10.0	2.1	0.6	-4.4	81.3
1966	35.6	36.2	6.6	10.8	1.9	0.7	-4.6	87.3
1967	36.9	39.3	6.8	11.6	2.1	0.8	-5.4	92.1
1968	40.4	68.3	7.3	12.3	2.2	1.3	-8.5	123.2
1969	45.5	80.2	7.9	13.0	2.4	1.2	-9.6	140.5
1970	52.7	79.9	8.6	12.5	2.7	1.2	-9.2	148.4
1971	60.8	78.6	9.5	13.6	2.8	1.6	-10.1	156.7
1972	69.7	93.4	10.5	16.1	3.0	2.1	-13.1	181.8
1973	85.0	93.1	11.7	16.4	4.0	1.8	-13.5	198.5
1974	111.9	82.6	14.1	14.5	4.5	1.5	-11.9	217.1
1975	126.6	64.5	17.7	17.2	4.1	1.8	-11.8	220.1
1976	145.9	80.0	21.3	19.9	5.1	2.1	-17.1	257.2
1977	162.7	80.2	24.5	21.6	6.3	2.8	-18.1	280.0
1978	174.3	87.9	26.9	25.7	5.9	3.3	-20.0	304.0
1979	196.1	104.0	28.8	28.9	6.4	4.3	-23.0	345.5
1980	228.2	148.1	32.2	30.2	6.9	4.9	-31.4	418.9
1981	274.3	186.9	35.7	32.9	7.6	5.2	-38.4	504.2
1982	299.1	165.6	40.6	33.7	8.7	6.7	-43.7	510.6
1983	317.6	195.8	45.2	42.8	9.1	8.2	-54.6	564.2
1984	357.9	232.4	48.2	58.2	10.2	9.9	-61.4	655.4
1985	402.5	277.1	52.8	57.1	11.8	14.2	-78.7	736.8
1986	428.3	345.4	61.0	58.8	13.0	24.3	-94.9	836.1
1987	453.8	472.8	68.6	66.5	14.1	38.5	-126.0	988.4
1988	590.7	452.7	73.8	68.3	15.8	47.9	-139.9	1109.4
1989	750.6	533.0	79.7	50.2	16.7	61.3	-172.8	1318.7
1990	799.8	550.0	85.7	45.3	17.7	65.8	-191.4	1372.9
1991	830.5	526.6	89.6	63.5	18.7	67.5	-212.5	1384.0
1992	857.2	551.9	92.2	93.8	19.1	81.7	-227.8	1468.1
1993	897.0	558.3	96.3	97.2	20.5	97.6	-242.5	1524.4
1994	981.6	666.1	101.0	93.2	22.0	103.7	-271.0	1696.6
1995	1038.8	685.1	106.6	103.3	23.5	113.0	-295.6	1774.7
1996	1103.0	798.9	111.0	98.6	24.5	124.4	-332.7	1927.6
1997 (a)	1166.9	959.2	112.6	120.3	34.1	141.7	-379.2	2155.6

(a) Preliminary figures.

Table 1(b): Real Private Sector Wealth at Market Value*

As at June -	Dwelling Assets	Business Assets	Consumer Durables	Govern-ment Securities	Money Base	Australian Investment Abroad	Foreign Liabilities	Total Wealth
				($1989-90 billion)				
1960	163.4	208.4	40.5	56.5	13.7	3.1	-24.4	461.8
1961	170.4	203.7	40.0	55.6	12.6	3.7	-21.5	464.4
1962	187.4	205.2	40.0	61.5	13.3	3.0	-22.2	488.9
1963	191.3	216.7	41.3	66.7	13.0	4.3	-26.8	507.2
1964	217.1	258.6	42.1	70.0	15.0	5.0	-35.7	572.1
1965	229.7	230.3	42.8	69.0	14.5	4.1	-30.3	560.7
1966	238.9	243.0	44.3	72.5	12.8	4.7	-30.9	585.9
1967	238.1	253.5	43.9	74.8	13.5	5.2	-34.8	594.2
1968	252.5	426.9	45.6	76.9	13.8	8.1	-53.1	770.0
1969	274.1	483.1	47.6	78.3	14.5	7.2	-57.8	846.4
1970	304.6	461.8	49.7	72.3	15.6	6.9	-53.2	857.8
1971	326.9	422.6	51.1	73.1	15.1	8.6	-54.3	842.5
1972	352.0	471.7	53.0	81.3	15.2	10.6	-66.2	918.2
1973	400.9	439.2	55.2	77.4	18.9	8.5	-63.7	936.3
1974	462.4	341.3	58.3	59.9	18.6	6.2	-49.2	897.1
1975	444.2	226.3	62.1	60.4	14.4	6.3	-41.4	772.3
1976	444.8	243.9	64.9	60.7	15.5	6.4	-52.1	784.1
1977	448.2	220.9	67.5	59.5	17.4	7.7	-49.9	771.3
1978	443.5	223.7	68.4	65.4	15.0	8.4	-50.9	773.5
1979	456.0	241.9	67.0	67.2	14.9	10.0	-53.5	803.5
1980	480.4	311.8	67.8	63.6	14.5	10.3	-66.1	881.9
1981	529.5	360.8	68.9	63.5	14.7	10.0	-74.1	973.4
1982	524.7	290.5	71.2	59.1	15.3	11.8	-76.7	895.8
1983	504.9	311.3	71.9	68.0	14.5	13.0	-86.8	897.0
1984	535.0	347.4	72.0	87.0	15.2	14.8	-91.8	979.7
1985	563.7	388.1	73.9	80.0	16.5	19.9	-110.2	1031.9
1986	555.5	448.0	79.1	76.3	16.9	31.5	-123.1	1084.4
1987	542.2	564.9	82.0	79.5	16.8	46.0	-150.5	1180.9
1988	655.6	502.4	81.9	75.8	17.5	53.2	-155.3	1231.3
1989	777.8	552.3	82.6	52.0	17.3	63.5	-179.1	1366.5
1990	782.6	538.2	83.9	44.3	17.3	64.4	-187.3	1343.3
1991	783.5	496.8	84.5	59.9	17.6	63.7	-200.5	1305.7
1992	793.0	510.5	85.3	86.8	17.7	75.6	-210.7	1358.1
1993	812.5	505.7	87.2	88.0	18.6	88.4	-219.7	1380.8
1994	879.6	596.9	90.5	83.5	19.7	92.9	-242.8	1520.3
1995	913.6	602.6	93.8	90.9	20.7	99.4	-260.0	1560.9
1996	949.2	687.5	95.5	84.9	21.1	107.1	-286.3	1658.9
1997 (a)	990.6	814.3	95.6	102.1	28.9	120.3	-321.9	1829.9

(a) Preliminary figures.

* Real wealth is calculated by dividing nominal wealth by the private consumption deflator.

Table 1(c): Real Per Capita Private Sector Wealth at Market Value*

As at June -	Dwelling Assets	Business Assets	Consumer Durables	Govern-ment Securities	Money Base	Australian Investment Abroad	Foreign Liabilities	Total Wealth
	($ per capita, 1989-90 prices)							
1960	15592	19891	3862	5392	1311	291	-2332	44081
1961	15901	19012	3733	5185	1175	346	-2005	43347
1962	17175	18805	3666	5635	1222	272	-2037	44806
1963	17201	19482	3714	5994	1173	391	-2411	45610
1964	19147	22800	3716	6173	1323	441	-3149	50451
1965	19860	19919	3698	5964	1252	358	-2624	48486
1966	20202	20542	3745	6129	1078	397	-2610	49540
1967	19771	21057	3643	6215	1125	429	-2893	49348
1968	20589	34807	3720	6268	1121	663	-4332	62785
1969	21870	38549	3797	6249	1154	577	-4614	67533
1970	23795	36076	3883	5644	1219	542	-4154	67005
1971	25016	32340	3909	5596	1152	658	-4156	64473
1972	26460	35457	3986	6112	1139	797	-4973	69015
1973	29689	32518	4087	5728	1397	629	-4715	69331
1974	33695	24872	4246	4366	1355	452	-3583	65373
1975	31974	16290	4470	4344	1035	455	-2980	55588
1976	31698	17381	4628	4323	1108	456	-3715	55879
1977	31582	15568	4756	4193	1223	544	-3513	54351
1978	30887	15577	4767	4554	1046	585	-3544	53871
1979	31417	16662	4614	4630	1025	689	-3685	55352
1980	32693	21217	4613	4327	989	702	-4498	60013
1981	35485	24178	4618	4256	983	673	-4968	65225
1982	34559	19134	4691	3894	1005	774	-5049	58996
1983	32800	20221	4668	4420	940	847	-5639	58268
1984	34340	22298	4625	5584	979	950	-5891	62884
1985	35706	24582	4684	5065	1047	1260	-6982	65362
1986	34681	27968	4939	4761	1053	1968	-7684	67701
1987	33336	34732	5039	4885	1036	2828	-9256	72607
1988	39657	30392	4955	4585	1061	3216	-9392	74480
1989	46260	32850	4912	3094	1029	3778	-10650	81273
1990	45859	31536	4914	2597	1015	3773	-10975	78719
1991	45330	28743	4891	3466	1021	3684	-11599	75542
1992	45333	29187	4876	4961	1010	4321	-12047	77641
1993	46003	28632	4939	4985	1051	5005	-12437	78179
1994	49284	33443	5071	4679	1105	5207	-13606	85182
1995	50580	33358	5190	5030	1144	5502	-14393	86412
1996	51836	37545	5217	4634	1151	5846	-15635	90589
1997 (a)	53490	43969	5161	5514	1563	6495	-17382	98811

(a) Preliminary figures.

* Real wealth is calculated by dividing nominal wealth by the private consumption deflator.

Table 2: Nominal Private Sector Wealth at Replacement Cost

As at June -	Dwelling Assets	Business Assets	Consumer Durables	Govern-ment Securities	Money Base	Australian Investment Abroad	Foreign Liabilities	Total Wealth
				($ billion)				
1960	21.3	28.7	5.3	7.4	1.8	0.4	-3.7	61.3
1961	23.0	30.1	5.4	7.7	1.7	0.5	-3.5	64.9
1962	24.1	30.7	5.4	8.2	1.8	0.4	-3.8	66.9
1963	25.3	32.5	5.7	8.9	1.8	0.6	-4.4	70.4
1964	27.4	36.0	5.9	9.6	2.1	0.7	-5.1	76.6
1965	29.9	37.3	6.2	10.1	2.1	0.6	-5.4	80.8
1966	32.7	40.2	6.6	10.8	1.9	0.7	-5.7	87.2
1967	35.1	43.0	6.8	11.6	2.1	0.8	-6.5	92.9
1968	38.2	57.4	7.3	12.2	2.2	1.3	-6.7	111.8
1969	42.1	65.2	7.9	13.1	2.4	1.2	-7.0	124.8
1970	47.0	68.9	8.6	13.6	2.7	1.2	-7.1	134.8
1971	53.0	72.8	9.5	14.5	2.8	1.6	-8.9	145.4
1972	61.4	82.7	10.5	16.0	3.0	2.1	-10.6	165.2
1973	76.3	87.5	11.7	17.2	4.0	1.8	-12.1	186.5
1974	98.9	94.9	14.1	17.8	4.5	1.5	-14.7	217.0
1975	121.6	101.3	17.7	20.2	4.1	1.8	-23.5	243.2
1976	144.9	118.3	21.3	22.8	5.1	2.1	-29.7	284.7
1977	166.5	130.7	24.5	25.2	6.3	2.8	-35.7	320.3
1978	182.2	145.1	26.9	27.7	5.9	3.3	-40.4	350.7
1979	200.1	163.0	28.8	32.1	6.4	4.3	-42.6	392.2
1980	229.9	193.2	32.2	35.1	6.9	4.9	-44.9	457.3
1981	271.7	219.4	35.7	38.9	7.6	5.2	-47.3	531.3
1982	315.8	253.4	40.6	41.8	8.7	6.7	-91.5	575.4
1983	348.0	280.9	45.2	49.1	9.1	8.2	-102.6	638.0
1984	380.2	300.0	48.2	62.0	10.2	9.9	-95.4	715.2
1985	425.1	333.0	52.8	61.3	11.8	14.2	-106.0	792.2
1986	472.6	363.2	61.0	61.4	13.0	24.3	-101.9	893.7
1987	515.1	393.8	68.6	69.4	14.1	38.5	-100.7	998.9
1988	588.6	433.7	73.8	69.0	15.8	47.9	-141.6	1087.3
1989	694.9	506.3	79.7	53.6	16.7	61.3	-179.0	1233.4
1990	771.1	544.3	85.7	47.9	17.7	65.8	-204.3	1328.1
1991	805.3	544.4	89.6	62.6	18.7	67.5	-223.5	1364.6
1992	825.7	552.3	92.2	85.5	19.1	81.7	-222.1	1434.5
1993	856.6	574.0	96.3	86.5	20.5	97.6	-244.3	1487.3
1994	903.6	588.6	101.0	91.7	22.0	103.7	-233.0	1577.7
1995	953.6	614.5	106.6	101.1	23.5	113.0	-256.1	1656.3
1996	989.6	641.4	111.0	96.1	24.5	124.4	-258.9	1728.1
1997 (a)	1013.4	660.1	112.6	108.8	34.1	141.7	-255.5	1815.1

(a) Preliminary figures.

Table 3: Valuation Ratios for Selected Wealth Components

As at June -	Dwelling Assets (a)	% growth	Business Assets (b)	% growth	Government Securities (c)	% growth
1960	1.005		0.951		1.000	
1961	1.000	-0.5	0.914	-4.0	0.974	-2.6
1962	1.050	4.9	0.902	-1.2	1.012	3.8
1963	1.043	-0.6	0.920	1.9	1.034	2.1
1964	1.109	6.1	1.006	8.9	1.021	-1.3
1965	1.114	0.4	0.895	-11.6	0.990	-3.1
1966	1.089	-2.3	0.900	0.6	1.000	1.0
1967	1.051	-3.5	0.914	1.5	1.000	0.0
1968	1.058	0.6	1.190	26.4	1.008	0.8
1969	1.081	2.2	1.230	3.3	0.992	-1.6
1970	1.121	3.7	1.160	-5.9	0.919	-7.7
1971	1.147	2.3	1.080	-7.1	0.938	2.0
1972	1.135	-1.1	1.129	4.5	1.006	7.0
1973	1.114	-1.9	1.064	-6.0	0.953	-5.4
1974	1.131	1.6	0.870	-20.1	0.815	-15.7
1975	1.041	-8.3	0.637	-31.3	0.851	4.4
1976	1.007	-3.3	0.676	6.0	0.873	2.5
1977	0.977	-3.0	0.614	-9.7	0.857	-1.8
1978	0.957	-2.1	0.606	-1.3	0.928	7.9
1979	0.980	2.4	0.638	5.2	0.900	-3.0
1980	0.993	1.3	0.767	18.4	0.860	-4.5
1981	1.010	1.7	0.852	10.6	0.846	-1.7
1982	0.947	-6.4	0.654	-26.5	0.806	-4.8
1983	0.913	-3.7	0.697	6.4	0.872	7.8
1984	0.941	3.1	0.775	10.6	0.939	7.4
1985	0.947	0.6	0.832	7.2	0.931	-0.8
1986	0.906	-4.4	0.951	13.4	0.958	2.8
1987	0.881	-2.8	1.201	23.3	0.958	0.1
1988	1.004	13.0	1.044	-14.0	0.990	3.2
1989	1.080	7.4	1.053	0.9	0.937	-5.5
1990	1.037	-4.1	1.010	-4.1	0.946	1.0
1991	1.031	-0.6	0.967	-4.4	1.014	7.0
1992	1.038	0.7	0.999	3.3	1.097	7.8
1993	1.047	0.9	0.973	-2.7	1.124	2.4
1994	1.086	3.7	1.132	15.1	1.016	-10.0
1995	1.089	0.3	1.115	-1.5	1.022	0.5
1996	1.115	2.3	1.246	11.1	1.026	0.4
1997 (d)	1.151	3.3	1.453	15.4	1.106	7.5

(a) Established house prices divided by the deflator for dwelling investment.
(b) Equity prices divided by the deflator for business fixed investment.
(c) Market price divided by face value.
(d) Preliminary figures.