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SOCIAL WELFARE RESEARCH CENTRE

DISCUSSION PAPERS

**TOWARDS AN UNDERSTANDING
OF COMMONWEALTH SOCIAL
EXPENDITURE TRENDS**

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SOCIAL EXPENDITURE TRENDS**

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ABSTRACT

This paper provides a detailed summary and assessment of the analysis of trends in Commonwealth budget social and welfare programs recently undertaken by the Commonwealth Department of Finance in its **Report on the Forward Estimates of Budget Outlays, 1989-90 to 1991-92**. The expenditure decomposition method used in Chapter Five of that report, initially developed in the mid-seventies at the OECD, is applied to analyse the growth in expenditure on nineteen social programs since 1968-69 and their forward estimates to 1991-92. The paper outlines the framework used in public expenditure decompositions and discusses its strengths and limitations. Particular attention focuses on the importance of the variables used in the exercise and how these are measured in practice. Broad results for all nineteen social programs are then presented and discussed. A more detailed analysis of the decompositions of expenditure in three areas; Nursing Homes, the Age Pension and Assistance to Families is then undertaken to provide an illustration of the usefulness of and qualifications that apply to expenditure decomposition analysis.

1. INTRODUCTION

It is somewhat surprising, in light of the debate over the causes and effects of public expenditure growth in Australia in the last decade, that so little has been written about the factors behind the growth of government spending. Most writers seem more concerned with establishing the ingenuity of their proposals for cutting government spending, or with condemning such proposals or the cut-backs that have occurred, than they are with understanding more about why government expenditure continues to grow. And continue to grow it does. According to recent OECD data, for example, total general government outlays relative to GDP were higher in 1985 than in 1980 in 16 of the 18 countries for which data are available. The average increase in government outlays relative to GDP over the period was 3.3 percentage points. In Australia the ratio rose by 4.5 percentage points. It declined in only two countries, Germany (by 1.1 percentage points) and Norway (by 2.6 percentage points). It is against this background that the recent release of a detailed study of the growth of Commonwealth Budget outlays - a major, but by no means the only element of general government activity - by the Department of Finance (1988) is particularly welcome. This report, referred to hereafter as the Forward Estimates Report (FER), is primarily concerned with forward estimates of budget outlays for the period 1989-90 to 1991-92, it also contains (in Chapter 4) an analysis of past outlay trends for the period 1972-73 to 1991-92 and (in Chapter 5) a very detailed consideration of trends in Australian social and welfare programs since the late 1960s through to the estimates for 1991-92. The publication of the forward estimates, along with the underlying assumptions on which they are based, is a valuable aid to informed debate on Commonwealth outlay prospects as well as on the broader questions of the scope and role of government activity. The analysis of trends over the past two decades is, however, the main focus of this paper. This primarily descriptive analysis is a valuable addition to similar work for Australia undertaken in recent years by Gruen (1985), The Office of EPAC (1985; 1986b; 1987) and Saunders (1987; 1988).

It is well-known that much of the growth in Commonwealth spending since the early seventies reflects increased expenditure on the main social programs in the areas of education, health, and social security and welfare. The analysis undertaken in the FER indicates that annual real expenditure growth in these three functional areas between 1972-73 and 1991-92 is 6.3 per cent, 6.7 per cent and 4.8 per cent, respectively. This compares with average annual real growth of total budget outlays over the period of 3.0 per cent. Together, outlay growth in the three functional areas accounts for 75.8 per cent of total Commonwealth real outlay growth over the twenty years (FER, Table 12, p. 115).

This paper explains the decomposition method used in the FER to analyse the growth in Commonwealth social and welfare outlays, canvasses some of its limitations, and then critically assesses the results and interpretation of the FER analysis. The paper is organised as follows: Section 2 explains the decomposition method in general terms and then in relation to its specific application to the two broad social expenditure categories, income transfers and outlays on goods and services for social welfare service provisions. This is followed in Section 3 by a summary of results from the FER and a critical assessment of some aspects of them. Section 4 considers in more detail the expenditure decomposition of three specific Commonwealth programs; Nursing Homes, the Age Pension, and Assistance to Families. Finally Section 5 summarises the main conclusions of the paper.

2. THE DECOMPOSITION METHODOLOGY

The methodology underlying the decomposition of government expenditure aggregates was developed and first applied by the OECD in the mid-seventies in a number of studies of public expenditure growth (OECD, 1976a; 1976b; 1977; 1978). In these and subsequent OECD work using the decomposition method (OECD, 1985; 1988; Saunders and Klau, 1985) the prime focus was on providing a framework for the analysis of public expenditure growth that would produce results that could be compared across countries. For such purposes, it was necessary to make allowance, for example, for country-specific demographic trends in order that the growth in expenditure aggregates could be made more directly comparable. The decomposition method pioneered by the OECD also allowed an estimate of the extent to which projected demographic trends would place further upward pressure on the financing of social expenditure programs at a time when this was emerging as a major policy issue in OECD countries. It was always recognised by the OECD in this work that the adoption of a common framework of analysis would 'inevitably fail to capture much of the complexity and diversity' (OECD, 1976, p. 19) of social programs, a trade off that must always be faced in comparative work of this kind.

The decomposition method begins with the observation that, as a matter of definition, total government expenditure on any program is equal to the product of three separate factors, the size of the population relevant to the program, the proportion of that population receiving benefits under the program, and the average benefit level for those receiving assistance under the program. This basic accounting identity can be expressed algebraically in the following form:

$$\text{PROGEXP} = (\text{TARGPOP}) \cdot (\text{NOBEN} / \text{TARGPOP}) \cdot (\text{PROGEXP} / \text{NOBEN})$$

(1)

where PROGEXP = nominal program expenditure; TARGPOP = the size of the target population to which the program is directed; and NOBEN = the number receiving direct assistance under the program. The three terms on the right hand side of (1) are conventionally referred to as the demographic factor, the coverage factor, and the average benefit level, respectively. As a variant of (1), it is possible to express program expenditure in real terms, in which case the last term becomes the average real benefit level. While this may seem an innocuous adjustment, it in fact raises a number of issues that revolve around the appropriate definition of real public expenditure. For this reason, this issue will be discussed at more length subsequently.

It is important to recognise that the decomposition identity shown in (1) is simply an analytical device for assisting an understanding of the level and growth of government program expenditures. The method does no more than provide quantitative indicators that are wholly determined once the variables that appear in (1) are themselves defined. The usefulness of the method thus depends crucially on the definition of these three key variables. This in turn depends upon the precision with which the target population and beneficiary numbers can be identified. Thus, for example, in the case of public goods, or where externalities exist, it may not be possible to define the variables TARGPOP and NOBEN with any precision, so that the decomposition method becomes an exercise in working through the implications of alternative arbitrary definitions of the groups for which programs are implemented, and who benefits from them.

For this reason, the decomposition method has been applied - both by the OECD and by researchers in Australia (Gruen, 1985; Office of EPAC, 1986b; Saunders, 1987) - only to those areas of social expenditure (education, health, and social security) where the target population and beneficiary numbers can be most readily isolated and measured. Even in such cases, income support being the most obvious example, the beneficiary numbers - which affect both the coverage factor and the average benefit level - refer only to those who receive a **direct** benefit (i.e. an income support payment) from program expenditure, not those who may benefit **indirectly** as a consequence. Nor does the analysis include those who may derive benefit from the existence of the **program** even if they are not currently receiving direct benefits from expenditure on it. To further complicate matters, in some instances even this distinction is unclear. Consider, for example, the case of universal public provision of free or subsidised hospital treatment. Who are the direct beneficiaries of such a program? One approach would identify the

beneficiaries as those utilising hospital services in any period. In contrast, if one conceptualises free or subsidised hospital treatment in insurance terms, the entire population benefits **directly**, even though not all may use hospital services in any period. The two alternative approaches have different implications for the definition of the three factors alluded to earlier and will thus produce different results from the decomposition method.

These conceptual points aside, the appeal of the decomposition method lies in its ability to isolate the three major factors underlying the growth of government expenditure. In particular, the framework allows the impact of demographic factors to be isolated and quantified, as well as drawing the important distinction between aggregate program expenditure and the average benefit level per recipient. The method also readily allows the expenditure impact of alternative assumptions about the future course of demographic change, coverage and average benefit levels to be quantified and assessed. This is because it follows directly from (1) that the percentage change in expenditure is equal to the sum of the percentage changes in demography, coverage and average benefit levels. An example of the use of this approach is to be found in the OECD analysis of social expenditure growth (OECD, 1985) in which the implications for average benefit growth over the 1981-90 period were estimated, for a given set of population projections, on the assumptions of no increase in coverage or in the ratio of social expenditure to GDP over the forecast period.

It is also sometimes claimed that the decomposition method allows the effects on expenditure of exogenous developments to be isolated from those resulting from policy initiatives. This distinction is, however, problematic, as each of the factors identified as contributing to expenditure growth are ultimately amenable to government policy, even if there may be more flexibility in the short run in some areas than in others. It may be reasonable, for example, to treat demographic growth as exogenous over periods of up to five years or so, but beyond this such an assumption becomes increasingly untenable. Indeed, in the case of some social programs (e.g. the age pension) the demographic factor is determined once the age of eligibility for the pension is set, and this is, in principle at least, under the immediate control government.

One final point to note before proceeding is that there is no one-to-one correspondence between government policies and the factors identified in the decomposition method. Consider again the case of income support. Here it is tempting to equate policy-induced changes in eligibility criteria (defined to include in the Australian case both **eligibility** for pension or benefit receipt, as well as the operation of the income and assets tests which reduce **entitlement** for those deemed eligible to receive support) with observed

changes in coverage, and policy-induced changes in maximum pension or benefit rates with observed changes in average benefit levels. However, because of the nature of the Australian social security system this is not appropriate, as Saunders (1987: pp. 12-15) explains more fully. Under the Australian social security system, the actual level of pension or benefit received depends both upon the maximum level of entitlement and the way in which the income and assets tests are structured. Both factors together thus determine the coverage ratio and the average benefit level, making it extremely difficult to unravel the precise impact of policy changes using expenditure decomposition results. And this takes no account of behavioural responses to policy changes which add a further dimension to these difficulties. In short, because of the interdependencies between the variables used in the decomposition method, the results need to be interpreted with great caution, particularly when attempting to draw implications for the effects of policy changes. As Saunders and Klau note:

The usefulness of any particular decomposition lies in the insight it provides into the determinants of expenditure growth and the framework within which past developments and policies can be analysed rather than in providing immutable quantification of a set of clearly-delineated and independent forces on expenditure growth. This is not to deny the usefulness of the data which emerge, but rather to caution against their possible misinterpretation and misapplication. (Saunders and Klau, 1985, p. 101)

Having described the usefulness and limitations of the decomposition method in general terms, its more specific application to government expenditure on income support and government spending on inputs for the provision of education and health services is now considered.

Application to **income support programs** is straightforward. In terms of the approach adopted in the FER the generalised income support decomposition identity can be written in the following form:

$$(\text{EXPIS}/\text{CPI}) = (\text{TARGPOP}) \cdot (\text{NOBEN}/\text{TARGPOP}) \cdot (\text{EXPIS}/(\text{NOBEN} \cdot \text{CPI})) \quad (2)$$

where EXPIS = nominal expenditure on the income support program; CPI = the consumer price index; and all other variables are as previously defined. Again, the three terms on the right hand side of (2) are the demographic factor, coverage factor and average real benefit level, respectively. This is the basic identity used by the Department of Finance, although it is extended to provide a more complete analysis in its detailed application. It should be noted that both total expenditure and the average benefit level have been expressed in real terms by deflating by the CPI. While this is clearly the

appropriate deflator to use to express the average real benefit level, the CPI is not normally used to calculate real government expenditures. The most common deflator used in Australia for this purpose is the non-farm gross domestic product deflator (NFPD). This is the deflator used to calculate real outlays in Statement No. 6 of **Budget Paper No. 1**, and is used to express outlays in real terms in Chapter 4 of the Department of Finance Forward Estimates Report.

Had outlays been deflated by the NFPD, the income support expenditure decomposition identity would take the following form:

$$(EXPIS/NFPD) = (CPI/NFPD) \cdot (TARGPOP) \cdot (NOBEN/TARGPOP) \cdot (EXPIS/(NOBEN \cdot CPI)) \quad (3)$$

In this identity an extra term appears on the right hand side, measuring movements in the CPI relative to the NFPD. As these two series do not always move together, this expanded decomposition better illustrates how movements over time in the resource cost of income support expenditures do not always correspond to real benefit movements, even after adjusting for changes in beneficiary numbers. For this reason the decomposition framework provided by (3) is preferable to that implied by (2) in the income support case.

Although deflation of expenditure by the NFPD indicates the real cost to the community of the expenditure associated with government programs, such a method does not correspond to the normal procedure for estimating real expenditures, which requires the use of the deflator corresponding to the coverage of the expenditure series itself. The significance of alternative price deflators for the estimation of real public expenditure trends has produced considerable debate in the literature which will not be repeated here (for a summary see Heller, 1981). Suffice it to say that this literature suggests that use of the term 'real government expenditure' should strictly be used only where expenditure is deflated using the appropriate price deflator. It is more consistent with earlier terminology (e.g. OECD, 1985) to use the term 'deflated expenditure' where indices such as the CPI or NFPD are used to deflate government expenditures. There is more to this issue than merely semantics. It raises fundamental questions relating to whether the meaning of the term 'real government expenditure' is most appropriately measured from the perspective of government itself, the beneficiaries of government programs, or the national economy as a whole. The issue is highlighted by the decomposition method, precisely because it attempts to translate real government expenditures into real program benefits. It is therefore a little unfortunate that the FER did not devote more consideration to this issue. However, in order to allow ease of comparison with the FER

itself, the term real expenditure will be used henceforth in discussing the FER analysis and results.

An alternative decomposition framework to that provided by (2) [or (3)] focuses on expenditure relative to GDP rather than real expenditure as the variable to be analysed. This latter approach has more relevance to the **financing** implications of demographic, coverage and average benefit level changes, since the analysis is undertaken relative to the overall size of the economy. This approach to the decomposition of income support expenditures has been used by Saunders and Klau (1985), the Office of EPAC (1986) and in a recent OECD report on public pensions (OECD, 1988). The basic decomposition identity in this case takes the following form:

$$(EXPIS/GDP) = (TARGPOP/POP).(NOBEN/TARGPOP).((EXPIS/NOBEN)/((GDP/POP))) \quad (4)$$

where GDP = gross domestic product; and POP = the size of total population. In (4) the demographic factor now refers to the **ratio** of the target population to the total population, while the average real benefit level is replaced by the transfer ratio, the **ratio** of the average benefit level to GDP per capita. The use of (4) rather than (2) or (3), in addition to being more closely related to the financing implications of government expenditure trends, also avoids the problem of selecting the appropriate deflator for government expenditure, since financing questions relate directly to **nominal** expenditure aggregates. Having said this however, it is also possible to re-cast (4) in order to introduce a relative price term on the right hand side if required. Finally, it is worth noting that the transfer ratio in (4) allows more direct comparison with a relative poverty line that is adjusted according to movements in average community incomes, and against which the adequacy of income support payments is often assessed.

In relation to the decomposition of outlays on **social welfare services**, some of the issues raised above become more critical. In this case, the basic decomposition identity used in the FER takes the following form:

$$(EXPSEV/NFPD) = (SERVPD/NFPD).(TARGPOP).(NOBEN/TARGPOP).(EXPSEV/(SERVPD.NOBEN)) \quad (5)$$

where EXPSEV = expenditure on the relevant social welfare service program; SERVPD = the price deflator relevant to EXPSEV; and all other variables are as previously defined. There is now an extra term in the decomposition identity, reflecting the ratio of the relevant service price deflator to the non-farm product deflator. The final

three terms on the right hand side refer as before to demography, coverage and the average real benefit level, respectively. However, the average real benefit level now has a quite different interpretation to its use in income support expenditure decompositions. In this instance, the average real benefit level reflects the real (appropriately termed) level of service expenditure per beneficiary. However, since program expenditure in the social welfare services is primarily for the purchase of inputs, the average real benefit more accurately measures the **volume of inputs per beneficiary**. Consequently, as the FER notes:

.....an increase in intensity of service, an enhancement of working conditions for suppliers, or an increase in more expensive services will be shown as an increase in beneficiary welfare irrespective of the results actually achieved. (Department of Finance, 1988, p. 123)

Interpretation of the average real benefit in the social welfare services case is thus difficult, particularly where input costs rise primarily due to increased wages for service suppliers. The earlier comments on the use of the term 'real expenditure' to describe the variable on the left hand side of the decomposition identity apply with equal force to (4). The relative price term on the right hand side of (4) is associated with the relative price effect discussed by Baumol (1967), Heller (1981) and more recently by Levitt and Joyce (1987). Movements in the relative price term indicate the extent to which the price of service inputs (including labour inputs) outstrip price movements generally, reflecting both rises in the relative cost of non-labour inputs, as well as the inherent difficulties of measuring public sector labour productivity improvements in budget aggregates of government expenditure.

If attention focuses on the financing implications of social welfare services expenditure growth, the decomposition identity shown in (5) can be replaced by the following identity:

$$(\text{EXPSERV}/\text{GDP}) = (\text{TARGPOP}/\text{POP}) \cdot (\text{NOBEN}/\text{TARGPOP}) \cdot \{(\text{EXPSERV}/\text{NOBEN}) \cdot (\text{GDP}/\text{POP})\} \quad (6)$$

where the terms have all been earlier defined and have an obvious interpretation. This identity can also be extended in the obvious way in order to re-introduce a relative price term on the right hand side. If there is one central message that emerges from this discussion of the decomposition method, it is the need to interpret decomposition results with considerable caution. Some of the dangers associated with practical application of the method are illustrated in the following two sections, which discuss results presented in Chapter 5 of the FER.

3. OVERALL RESULTS

The FER applies the decomposition method described in the previous section to the growth in Commonwealth outlays on nineteen social programs over the twenty years to 1988-89 and the forward estimates period 1989-90 to 1991-92. Results are also presented for three sub-periods, 1968-69 to 1975-76, 1975-76 to 1982-83 and 1982-83 to 1988-89. These sub-period results allow trends under the Hawke and Fraser governments to be compared with each other and with trends in the years leading up to and including the Whitlam period. Detailed comparisons of results for all nineteen programs and the four sub-periods are beyond the scope of this paper, although details for some specific programs are discussed in the following section for illustrative purposes. The discussion thus focuses on general conceptual issues, as well as more specific data concerns, both of which have implications for the decomposition results and their interpretation.

As already emphasised, the variables used in the analysis affect the decomposition results, as well as having important implications for the conclusions derived therefrom. Furthermore, because of the nature of the decomposition identities, the use of inappropriate variables or data will cause a bias in the estimated impact of the relevant factor, and an exactly offsetting bias in the opposite direction elsewhere in the decomposition. Thus, for example, if the demographic factor for a particular program is overstated, the coverage factor will be correspondingly understated. Or if use of the incorrect beneficiary numbers cause the coverage factor to be understated, the average real benefit will be correspondingly overstated. Of if use of the wrong price deflator causes the relative price term to be overstated, the average real benefit will be correspondingly understated. The practical significance of such issues depends both upon the certainty with which the underlying variables can be identified, as well as with the availability and quality of data used in their measurement. Furthermore, the interaction of Commonwealth policies makes for additional complexities, even in what may seem to be the most straightforward cases.

Take the age pension as an example. Eligibility for the age pension is very clearly defined on the basis of age (males 65 and over, and females 60 and over), and the quality of the demographic data produced by ABS would appear to suggest that measuring the demographic factor would be straightforward. Unfortunately, however, this is not the case, because considerable numbers of those who qualify on the grounds of age to receive the age pension actually receive a service pension. Thus it is necessary to adjust the size of the population eligible to receive an age pension for those aged persons receiving a service pension in order to get a better measure of both the demographic and

coverage factors for the age pension. Such adjustment is undertaken in the FER, and has also been a feature of earlier work by Gruen (1985) and Saunders (1987). As an indication of the importance of such adjustment, Saunders (1987, p. 33) estimates that the age pension coverage ratio in 1985-86 rises from 66.3 per cent to 71.6 per cent after adjustment is made for service pension receipt by those aged persons eligible for the age pension. Such adjustment will clearly also have a significant impact on trends over time in a period when a cohort of service pension recipients moves through the system.

At a more conceptual level, there is the issue of whether or not tax expenditures should be aggregated with direct expenditures in undertaking decompositions. The FER aggregates direct expenditure and tax expenditure in three of its decompositions, those for Medical Benefits, Hospitals and Assistance to Families. There has been considerable interest in Australia in recent years in the identification and measurement of tax expenditures (Office of EPAC, 1986a; The Treasury, 1986:1988) and it is now commonly acknowledged that they should be included in comprehensive indicators of the size and scope of government. But whether tax expenditure estimates can be aggregated with direct expenditures, particularly in the context of decomposition analysis, is a different and more controversial issue. Given that Australian tax expenditures are estimated on a revenue foregone basis, their addition to direct expenditures to obtain a single aggregate is problematic unless the tax expenditure estimates are grossed up to reflect their value to recipients (Department of Social Security, (DSS), 1982: p. 29). This procedure corresponds to estimating tax expenditures on an outlay equivalent basis, a method that has been used by the US Treasury (OECD, 1984).

A further issue that applies specifically to the inclusion of tax expenditure estimates in decomposition analysis relates to the definition of the coverage factor, but also has implications for the estimation of average benefits. Aggregation of tax expenditures with direct expenditures causes program expenditure and average benefits to rise by the same proportion, at least if all other variables in the decomposition identity remain unchanged. But is it legitimate to incorporate tax expenditures on the outlays side without also giving attention to what this implies for beneficiary numbers, and hence for coverage and the average benefit level? If tax expenditures are to be included on the outlays side, then the logic of the decomposition method requires appropriate adjustment to beneficiary numbers. An obvious response to this is that the tax expenditure beneficiaries are often a sub-set of the program outlay beneficiaries, so that their inclusion makes no practical difference. This is not, however, correct, since the decomposition analysis will indicate a change in only the average benefit level, rather than what is actually a combination of changes in both coverage and average benefit

levels. These difficulties arise because two distinct and separate programs, each with their own coverage and benefit levels, are combined into a single program. The difficulties that arise when tax expenditures and direct expenditures are aggregated are illustrated in the following section in the discussion of the FER decomposition results for Assistance to Families. In general, the arguments presented above suggest that it would be more appropriate to undertake a separate decomposition analysis of tax expenditures rather than incorporate tax expenditure estimates into a broader analysis of program outlays.

One final issue before turning to the results relates to the measurement of income support expenditures and beneficiary numbers in the FER decompositions. The FER follows DSS practice in including expenditure on additional allowances with expenditure on each separate income support category. These additional allowances include additional pension or benefit for children, mothers'/guardians' allowance, rent assistance, and several other minor benefits. Each of these are targeted towards particular sub-groups (e.g. families with children; private renters) within the eligible group for each of the main income support payments. Increases in the rates of additional allowances thus show up in the decompositions as higher average benefit levels for all beneficiaries within each category. This means, for example, that increases in the rates of additional pension or benefit for children - a feature of recent initiatives under the Hawke government - are reflected in the FER analysis as higher average pension or benefit levels rather than as improvements in Assistance to Families. An alternative approach would have been to separate off expenditure on these allowances for pensioners and beneficiaries with children and include them as part of Assistance to Families for decomposition purposes, or treat them entirely separately as was done in Saunders (1987).

A related point concerns the way in which beneficiary numbers are calculated by DSS. A distinction is made here between pensions, which are paid separately (at half the appropriate rate) to each partner of married couples, and benefits, which are paid (except in a very small minority of exceptional cases) entirely to the eligible person, even though they will reflect payments in respect of any dependants. Thus, a married pensioner couple is counted by the DSS as two pensioners, while a married unemployment beneficiary couple is counted as only one beneficiary. As a consequence, for beneficiaries (to a much greater extent than for pensioners) the family composition of those in receipt of benefit will affect total expenditure and thus average benefit levels. Trends over time thus need to be interpreted with caution when the family composition of beneficiaries changes. Such a change occurred between 1982 and 1983, when the recession impacted disproportionately among unemployed families with children

(Saunders and Whiteford, 1987; Table 3, p. 6). The proportion of unemployment beneficiaries with dependent children rose from 16.5 per cent in May 1982 to 19.5 per cent in May 1983 (Department of Social Security, **Annual Report 1982-83**, p. 115). The result was a rise in unemployment benefit expenditure and average benefits in 1982-83, purely as a consequence of the change in the family composition of unemployment beneficiaries. Again, this highlights the need to interpret the decomposition results with care.

The above discussion and preamble to presentation of the FER decomposition results has gone at some length into the importance of understanding the way that social programs operate and interact, and illustrated the importance of these issues for expenditure decompositions. There are many other points that can be made to further qualify interpretation of decomposition findings. The essential point that emerges is that expenditure decompositions are as useful as the framework and data from which they are derived. There is simply no substitute for the sort of detailed consideration which is provided in Chapter 5 and Attachment C of the FER. Having said this, and emphasised its significance, the remainder of the paper considers some general features of the FER decomposition results, and illustrates the difficulties of making such generalisations in isolation from the supporting details.

The results from the FER decomposition analysis are presented in Tables 1 and 2 for expenditure on income transfers and social welfare services provision programs, respectively. Although the FER results are based on more detailed decompositions, Tables 1 and 2 provide results within the general framework outlined earlier. In the case of **income transfers**, Table 1 confirms the finding of Gruen (1985) and Saunders (1987) that increased coverage and demographic factors have been the major factors contributing to real expenditure growth in all cases. Average real benefits have increased by between 1 per cent and 3 per cent a year on average, the main exceptions being the real average benefit decline in Assistance to Families and the higher average real benefit increase in the case of Unemployment and Special Benefit. The earlier comments are relevant in both cases, plus the fact that much of the increase for Unemployment and Special Benefit occurred between 1968-69 and 1975-76 (FER, Table 31, p. 175). In fact the average real unemployment and special benefit level **declines** by 0.4 per cent a year between 1975-76 and 1991-92. For most income support programs, demography contributes between 0.5 per cent and 2.5 per cent a year to expenditure growth. Changes in coverage, however, show greater variation across programs, and across sub-periods, than either demographic or average real benefit changes. This

**TABLE 1: DECOMPOSITION OF INCOME TRANSFERS EXPENDITURE
GROWTH, 1968-69 TO 1991-92**

(Average Annual Percentage Changes)

Program	Real Expenditure	Demography	Coverage	Average Real Benefit
Student Assistance:(a)				
- Secondary	14.0	0.7	10.1	2.7
- Higher Education	6.4	1.2	5.1	0.1
Age Pension	5.0	2.3	0.8	1.8
Service Pension	10.5	0.7	6.8	2.8
Disability Pension	0.5	-2.4	2.0	0.9
Invalid Pension and Sickness Benefit	8.4	1.9	3.3	2.9
Sole Parent Pensions(b)	9.4	4.1	3.2	2.0
Assistance to Families	-1.1	1.2	-0.3	-1.3
Unemployment and Special Benefit	19.1	1.8	12.2(c)	4.3

Notes: (a) 1972 to 1991

(b) Includes Supporting Parents Benefit and Class A Widows Pension

(c) Coverage ratio defined as the number of beneficiaries relative to the total labour force excluding married females

Source: Department of Finance (1988)

**TABLE 2: DECOMPOSITION OF SOCIAL WELFARE SERVICES
EXPENDITURE GROWTH, 1968-69 TO 1991-92**

(Average Annual Percentage Changes)

Program	Real Expenditure	Relative Prices	Demography	Coverage	Average Real Benefit
Higher Education (a)	2.8	0.1	1.2	2.6	-0.9
Schools:(b)					
- Government	14.1	1.2	0.4	-0.2	12.4
- Non-government	16.2	1.2	0.4	1.1	13.1
Medical Benefit:					
- Total	8.7	-0.4	1.6	1.0	6.4
- Pensioner (c)	15.6	3.1	1.7	6.7	3.4
Acute Hospitals(d)	6.9	1.8	1.6	...(f)	3.3
Pharmaceutical Benefits Scheme:					
- Pensioner	7.4	...(f)	1.6	2.4	3.3
- Non-pensioner	2.7	...(f)	1.6	-0.3	1.4
Nursing Homes	9.4	1.3	3.1	0.0	4.7
Child Care (e)	11.4	-0.2	4.2	7.8	-0.6

Notes: (a) 1972 to 1991
 (b) 1968 to 1991
 (c) 1968-69 to 1982-83
 (d) Real recurrent expenditure only
 (e) 1982-83 to 1991-92
 (f) Not available

Source: Department of Finance (1988)

suggests that governments have exerted their policy control in most income transfer programs primarily by changing eligibility criteria (including the operation of income and assets tests), rather than by attempting to influence real benefit levels.

The decomposition results for expenditure on **social welfare services** (Table 2) tell a quite different story. Here, the main factor contributing to real expenditure growth (in five of the seven major programs) is increases in average real benefit levels. Coverage has been the most important single factor behind real expenditure growth in the remaining two programs, Higher Education and Child Care. In most cases, demography has contributed between 0.5 per cent and 1.5 per cent a year to real expenditure growth, while both coverage and average real benefits show great variation across programs. The relative price term contributes between 1 per cent and 2 per cent a year to real expenditure growth, except in the case of Medical Benefits and Child Care where its contribution is negative overall. Interpretation of these results, are however, dependent on the measurement of relative prices, a point illustrated in the case of expenditure on Nursing Homes in Section 4.

The contribution of relative price movements to expenditure growth in all social programs was much greater in the period to 1975-76 than in the period since then. Indeed, in many instances relative price movements have exerted a negative influence on real expenditure growth in the period since the mid-seventies. This has been the period of greatest restraint on public expenditure, and this turnaround no doubt in part reflects this. One of the ways that government policy has addressed the issue of expenditure control is through measures that seek to restrain relative cost escalation in the public sector. Such policies seem to have met with some success in the social welfare services area and thus contributed to reduced real expenditure growth. In light of this, it is somewhat surprising that the FER (p. 123) describes the movement in relative prices as a factor 'not directly subject to policy decisions'. It has already been noted that the distinction between factors subject or not subject to policy decisions is in principle problematic. In the relative price case, the above statement appears to conflict both with matters of principle as well as with the empirical evidence itself. Finally, to the extent that the social welfare service price deflators reflect wage payments to those involved in service provision, the negative relative price movements since the mid-seventies are indicative of falling real wage levels in the social welfare services sector. In a sense, the relative price movements in Table 2 indicate for service providers on the supply side, the equivalent to what movements in average real benefits in Table 1 indicate has happened to income transfer recipients. Both have felt the effects of government spending restraint since the mid-seventies.

The difficulties in interpreting average real benefit movements in the case of social welfare services has already been noted. What is being measured here is the volume of inputs provided per beneficiary, and it is difficult to equate this with improved beneficiary living standards. The diversity across programs in average real benefits shown in Table 2 is, however, very substantial. Average real benefit growth appears to have been extremely high in the case of both Government and Non-government Schools. It is also interesting that, over the period as a whole, both real expenditure and average real benefits have grown faster in Non-government than in Government Schools. This divergence was particularly great under the Fraser period (1975-76 to 1982-83), but it is interesting to note that Non-government Schools have also fared better than Government Schools under the Hawke period (since 1982-83).

4. SOME SPECIFIC EXAMPLES

This Section presents a more detailed discussion of the decomposition results for three programs, in order to further illustrate some of the issues already discussed. The three programs have been selected in part because they serve to illustrate and highlight certain issues. But they are also programs which have received considerable attention at the policy level by successive governments and which are certain to remain at the forefront of policy debates for the foreseeable future. The three programs are Nursing Homes, the Age Pension and Assistance to Families.

4.1 Nursing Homes

Commonwealth funding of nursing homes has taken a variety of different forms in the last two decades, as explained in more detail on pages 152-53 of the FER. Prior to 1987, the Commonwealth undertook to reimburse nursing home proprietors for costs incurred in the provision of care to residents. Under this arrangement, expenditure on Nursing Homes rose very rapidly, even when adjusted for inflation. New funding arrangements were introduced in 1987, under which the Commonwealth will buy a level of service (subject to minimum standards of care) for a predetermined price on behalf of residents. Against a background of population ageing and increased longevity, Commonwealth aged care policy has been reformulated in the last five years with the intention of changing the balance between institutional and domiciliary care, and between provision of beds in nursing homes and hostels. Following the publication of the **Nursing Homes and Hostels Review** in 1986, national targets were established for the provision of nursing home and hostel beds in relation to the size of the population over 70 years of age. Furthermore, the introduction of the Home and Community Care (HACC) program

in 1985 is intended to ease the pressures on institutional care by funding the expansion of home and community care services on a joint Commonwealth-State cost-shared basis. A major objective of the HACC programme - encapsulated in the **Home and Community Care Act 1985** - is to assist the frail elderly, younger people with disabilities, and their carers, to live an independent life in the community and avoid their premature or inappropriate admission to long term residential care. Although it is as yet early days to assess the success of these new funding and policy initiatives, the decomposition of expenditure on Nursing Homes provides an initial check of whether or not the underlying trends have changed in the last five years or so.

The detailed decomposition of Nursing Home expenditure is presented in Table 3. These results do indeed indicate a marked change in the period since 1982-83, with a rapid deceleration of real expenditure growth and a decline in coverage of more than 2 per cent a year. As a consequence, the coverage of Nursing Home expenditure is estimated to be the same by 1991-92 as it was in 1968-69. Demographic pressure - measured by the growth in the population aged 70 and over - has been contributing 3.5 per cent a year to expenditure growth since the mid-seventies, and while average real benefits have continued to rise, they have done so at a continually decelerating rate. However, the average real benefit figures in Table 3 need to be interpreted with caution since in the absence of a specific price deflator for nursing homes, average weekly earnings (AWE) have been used as a proxy measure. Finally, it is important to note that the data on both expenditure and beneficiary (i.e. resident) numbers used in the decomposition include nursing home residents under 70 years of age, a group which represented 16 per cent of nursing home residents in 1985 (**Nursing Home and Hostels Review**, Table 2.3, p. 18), another reason for treating the precise magnitudes shown in Table 3 with care.

By way of illustration of the usefulness of the decomposition results, they can be used to indicate the possible consequences for Nursing Home expenditure over the coming decades as a result of population ageing. It is to be emphasised that such projections (as well as those for the Age Pension considered below) are indicative only, as they cannot incorporate the cumulative impact of policies already in place. By simple extrapolating recent trends they may present a misleading picture where policy has changed specifically to cause the trend of future expenditure to break with past experience. Their intention is to illustrate the potential usefulness of decomposition results in this context by providing broad orders of magnitude rather than to produce estimates that are in any sense definitive. To achieve the latter would require the production of forward estimates as is done in the FER, but for such an extended period of time that their sensitivity to the underlying economic assumptions would undermine their reliability.

TABLE 3: DECOMPOSITION OF NURSING HOME EXPENDITURE GROWTH

(Annual Average Percentage Changes)

Period	Real Expenditure	Relative Prices	Demography	Coverage	Average Real Benefit
1968-69 to 1975-76	17.1	3.3	2.4	2.1	8.5
1975-76 to 1982-83	10.0	1.3	3.4	0.8	4.2
1982-83 to 1988-89	3.6	-0.7	3.4	-1.9	3.0
1988-89 to 1991-92	2.9	1.0	3.5	-2.5	1.0
1968-69 to 1991-92	9.4	1.3	3.1	0.0	4.7

Source: Department of Finance (1988), Table 24, p. 154

According to the 1985 ABS population projections (ABS, 1985) the number of persons aged 70 and over will increase from 1.27 million in June 1991 to 2.31 million in June 2021. This represents a projected annual average increase in the demographic factor over the period of 2.0 per cent a year. If relative prices and average real benefits were each to grow at 1 per cent a year over the period (as they are assumed to over the forward estimates period) these three factors together would contribute 4 per cent a year growth to real Nursing Home expenditure. The only way that real expenditure growth could be contained below 4 per cent in this scenario would be if coverage were to continue to decline, an outcome that is unlikely to be achievable over such an extended period of time, at least in the absence of continued expansion of funding of the HACC program. (Under the HACC Agreements, jointly agreed to by the Commonwealth and the States/Territories, expenditure on the HACC program is scheduled to expand by 20 per cent a year after 1988-89.) This is, of course, an overly-simplistic analysis, but one that illustrates how the decomposition results can assist in setting a broad framework for the evaluation of future expenditure growth and likely policy responses.

4.2 The Age Pension

Commonwealth policy on income support for the aged has also undergone considerable change over the last two decades. This has reflected policy adjustments to the coverage of the Age Pension through changes to the means test and the income test and, more recently, through the introduction of the assets test. The Whitlam government introduced a universal element into the age pension system by removal of the means test for those aged 75 and over in 1973, and for those aged 70 to 74 in 1975. In 1976 the means test on pensions was replaced by an income test. In 1978 the Fraser government applied the income test to those 70 and over in respect of age pension increases awarded under indexation provisions, and the income test on the age pension for those over 70 was fully re-introduced in November 1983. Finally, in 1985 the assets test was introduced by the Hawke government. According to the DSS statistics, introduction of the assets test led to the cancellation of some 31500 age pensions by 5 July 1985 due to non-disclosure or assessment of assets, and a reduction in age pension entitlement in a further 20900 cases. These figures compare with a total of about 1.36 million age pensioners at the end of 1985-86. (Department of Social Security, **Annual Report 1984-85**, pages 18 and 86.) In terms of the decomposition analysis, introduction of the assets test, as well as other changes to the means and income tests, affect both the coverage factor and average real benefit levels. The magnitude of these effects can be gauged with the assistance of Table 4 which presents the detailed Age Pension decomposition results.

TABLE 4: DECOMPOSITION OF AGE PENSION EXPENDITURE GROWTH

(Annual Average Percentage Changes)

Period	Real Expenditure	Demography	Coverage	Average Real Benefit
1968-69 to 1975-76	13.7	2.7	4.3	6.1
1975-76 to 1982-83	1.8	2.3	0.8	-1.3
1982-83 to 1988-89	0.5	1.8	-2.3	1.0
1988-89 to 1991-92	1.9	2.5	-1.4	0.8
1968-69 to 1991-92	5.0	2.3	0.8	1.8

Source: Department of Finance (1988), Table 25, p. 157

These results, which adjust for the receipt of service pension by those eligible to receive the age pension, show a dramatic change between the period prior to 1975-76 and the period since then. Throughout the period, demographic factors have added 2.3 per cent a year to real Age Pension expenditure growth. After rising by more than 6 per cent a year to 1975-76, average real benefits have hardly changed overall since then. Indeed, between 1975-76 and 1991-92 the average benefit level for the Age Pension is projected to decline slightly in real terms. It is important to stress, however, that over both periods the maximum pension rate has risen in real terms, albeit at a much slower rate than prior to 1975-76. This divergence reflects the failure to index the various supplementary allowances paid to age pensioners, changes in the composition of pensioners as between those in receipt of the single or married rate of pension, and the failure to adjust the income test parameters for inflation. Combined with declining coverage, particularly since 1982-83, the decline in average real benefit levels has led to an annual increase in real expenditure on the Age Pension of only 1.3 per cent between 1975-76 and 1991-92, despite the annual average growth in the number of aged persons of almost 1.6 per cent over this period.

Using the ABS population projections referred to earlier, and with the same qualifications previously noted, the population of age pension age is projected to rise from 2.29 million to 4.10 million between June 1991 and June 2021. This represents a growth in the demographic factor (not adjusting for service pension recipients) of 1.96 per cent per annum over the period. Combined with average real benefit growth of 1 per cent a year, real expenditure would thus rise by just under 3 per cent a year if coverage remained unchanged. Alternatively, to hold real expenditure growth to 1.3 per cent a year - its average annual increase since 1975-76 - coverage would need to continue to decline by 1.7 per cent a year for the next thirty years. Using the DSS estimate of Age Pension coverage of 60.7 per cent in June 1988 (DSS, 1988: p. 1) and the coverage changes since then shown in Table 4, coverage of the Age Pension is projected to decline to 58.2 per cent by the end of 1991-92. Assuming a further decline in coverage of 1.7 per cent a year thereafter, coverage would fall to 35.4 per cent by the year 2021. This seems most unlikely to occur and suggests that real Age Pension expenditure will grow over the next three decades by considerably more than 1.3 per cent a year, probably at a rate closer to 3 per cent a year. Once again, the usefulness of the decomposition results for providing a coherent framework for analysing expenditure trends is apparent.

4.3 Assistance to Families

Commonwealth income support for families with dependent children has also undergone several important changes over the period, particularly since the mid-seventies. The main forms of family assistance prior to 1975-76 were the universal child endowment payments and tax deductions for taxpayers with dependent children. In the 1975-76 Budget, the tax deductions were converted to tax rebates, and in July 1976 the rebates and child endowment were abolished and replaced by the universal Family Allowance system. Increases have also been made to the rates of additional payments to pensioners and beneficiaries with dependent children and, in 1983, a new Family Income Supplement (FIS) was introduced for low income working families. Family Allowance was made subject to a parental income test in November 1987, while the current government's family assistance package of December 1987 saw the replacement of FIS by the new Family Allowance Supplement (FAS). As a result of these changes, income support for families with children over the last two decades has consisted of various combinations of tax expenditures, universal payments and selective payments.

Details of the decomposition of income support expenditure on Assistance to Families are presented in Table 5. When interpreting these results, the earlier comments on the shortcomings of aggregating tax expenditures and direct expenditures need to be borne in mind. That argument questioned the validity of aggregating such data on the expenditure side without also taking account of differences in the beneficiary numbers in the decomposition exercise. Furthermore, expenditure on additional pension and benefit for children is **not** included as part of Assistance to Families in the FER, but incorporated under expenditure on those pensions and benefits relevant to the income support status of the parent(s). Finally, the forward estimates do not incorporate the effects of the government's commitment, announced as part of the 1987 family assistance package, to raise child payments to 15 per cent of the married pension rate where the child is under 13, and 20 per cent where the child is 13 or over.

For all of these reasons, the magnitudes and even the broad categories shown in Table 5 should be treated with extreme caution. So too should the distinction drawn in the last two columns of Table 5 between 'means tested' and 'universal' family assistance payments. This is not only because expenditure on additional pension or benefit for children is not included in the means tested payments (even in the forward estimates), but also because the 'universal' payments include tax expenditures up to 1975-76. In fact, in the period up to 1974-75, the existence of tax deductions for dependent children resulted in a form of family assistance that was in effect means-tested in an inverse way

TABLE 5: DECOMPOSITION OF GROWTH IN EXPENDITURE ON ASSISTANCE TO FAMILIES

(Annual Average Percentage Changes)

Period	Real Expenditure	Demography	Family Coverage	Children per Family	Average Real Benefit	Of Which: Means Tested	Universal
1968-69 to 1975-76	4.1	1.8	0.1	-0.9	3.0	-(a)	3.0
1975-76 to 1982-83	-4.1	1.3	0.0	-1.0	-4.2	-(a)	-4.2
1982-83 to 1988-89	-3.2	0.9	-1.3	-0.3	-2.4	14.8	-5.1
1988-89 to 1991-92	-1.3	0.6	0.0	0.1	-1.9	39.7	-8.7
1968-69 to 1991-92	-1.1	1.2	-0.3	-0.6	-1.3	-(a)	-1.3

Note: (a) Not available

Source: Department of Finance (1988), Table 30, p. 173

relative to income. Furthermore, since the introduction of the income test on family allowances in 1987, there is no longer any universal component of Assistance to Families in Australia. For these reasons, the terminology used in the FER and reproduced in Table 5 is thus particularly suspect, if not downright misleading. These observations serve to illustrate that while the decomposition method may be a useful guide to understanding the broad factors underlying general expenditure trends, it is simply no substitute for much more careful analysis of the detailed assessment of policy impacts. In light of these reservations, interpretation of the results in Table 5 is best left to the broadest generalisations only. These indicate a general pattern which confirms previous work (e.g. Saunders, 1987), showing a steady decline in the real value of Family Allowance since its introduction, and a marked increase in the real level of assistance to low income families with children since 1982-83.

5. CONCLUDING REMARKS

This paper has outlined the use and limitations of the decomposition approach to analysis of the growth of government expenditure, and illustrated both in relation to the recent FER analysis undertaken by the Department of Finance. The need to undertake the analysis with care, particularly in relation to the definition of the decomposition variables has been emphasised throughout the paper. As a consequence, interpretation of the decomposition results also needs to be cautionary, as the previous Section has demonstrated. Notwithstanding these comments, the FER analysis is a welcome contribution to an understanding and interpretation of Commonwealth expenditure growth since the late sixties. It needs to be emphasised, of course, that the decomposition results do not indicate *why* government expenditure has grown. Rather, they serve to isolate underlying factors and provide a coherent framework for analysing broad trends. To go beyond this to seek the actual reasons for government expenditure growth, it is necessary to look at the policies themselves and to understand the **political** processes from which they emerged.

The results show the important contribution of expansions in coverage to overall expenditure growth in many Commonwealth social programs over the last two decades. Successive governments have attempted to control program expenditures primarily by restricting the scope of income support program coverage and by controlling relative cost escalation in social welfare services. In the twenty years to 1988-89, population growth has contributed a little over 10 per cent of the growth in total expenditure on the nineteen separate programs included in the analysis in the FER. Approximately 60 per

cent of total real expenditure growth between 1968-69 and 1988-89 occurred between 1968-69 and 1975-76. As a consequence, the FER argues:

....by 1975-76 Australia had established a comprehensive welfare system, where a basic minimum living standard was guaranteed to all those unable to help themselves, and with universally available heavily subsidised health care and free education systems. (Department of Finance, 1988, p. 183)

Social policy analysts who might regard such a sweeping statement with considerable scepticism, are likely to be even more perplexed by what follows immediately afterwards, i.e.:

The direction of reform since then has not really changed these basic priorities. Rather, the emphasis has been to enhance the adequacy of payments and improve equity, especially by better targeting. (Department of Finance, op. cit., p. 183)

This may well represent the Department of Finance's assessment of Australian social policy developments since the mid-seventies, but it is a controversial view that would not be generally accepted. Furthermore, it is not a view that can in any real sense be deduced from the results of the FER decomposition analysis. Debates on such fundamental issues as the course of development of the Australian Welfare State since the mid-seventies necessarily involve consideration of a much more complex set of issues and values than those associated with the decomposition of social expenditure trends. It is always useful to have the facts on hand before engaging in such debates. The FER has provided a useful array of factual material to assist this process. But, useful as it is, such material alone can never be the sole basis for understanding the more fundamental economic, social, political and ideological issues.

REFERENCES

- Australian Bureau of Statistics (1985), **Projections of the Populations of Australia, States and Territories 1984 to 2021**, Catalogue No. 3222.0, Canberra: AGPS.
- Baumol, W.J. (1967), 'Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis', *American Economic Review*, June, pp. 415-426.
- Department of Finance (1988), **Report on the Forward Estimates of Budget Outlays 1989-90 to 1991-92**, Canberra: AGPS.
- Department of Social Security (1982), **Taxation Expenditures. Submission by the Department of Social Security to the Inquiry into Taxation Expenditures by the House of Representatives Standing Committee on Expenditure**, Research Paper No. 17, Department of Social Security, Canberra.
- Department of Social Security (1988), **Pensioners and Beneficiaries as a Proportion of the Population and the Labour Force: Australia, 1978-1988**, Canberra: Department of Social Security.
- Gruen, F.H. (1985), 'The Federal Budget: How Much Difference Do Elections Make?', *Australian Economic Review* (3), pp. 36-49.
- Heller, P.S. (1981), 'Diverging Trends in the Shares of Nominal and Real Government Expenditure in GDP: Implications for Policy', *National Tax Journal*, March, pp. 61-74.
- Levitt, M.S. and Joyce, M.A.S. (1987), **The Growth and Efficiency of Public Spending**, Cambridge: Cambridge University Press.
- Department of Community Services (1986), **Nursing Homes and Hostels Review**, Canberra: AGPS.
- OECD (1976a), **Public Expenditure on Income Maintenance Programmes**, Paris: OECD.
- OECD (1976b), **Public Expenditure on Education**, Paris: OECD.
- OECD (1977), **Public Expenditure on Health**, Paris: OECD.
- OECD (1978), **Public Expenditure Trends**, Paris: OECD.
- OECD (1984), **Tax Expenditures. A Review of the Issues and Country Practices**, Paris: OECD.
- OECD (1985), **Social Expenditure 1960-1990. Problems of Growth and Control**, Paris: OECD.
- OECD (1988), **Reforming Public Pensions**, Paris: OECD.
- Office of EPAC (1985), **Public Sector Expenditure in Australia**, Council Paper No. 5, Canberra: AGPS.
- Office of EPAC (1986a), **Tax Expenditures in Australia**, Council Paper No. 13, Canberra: AGPS.
-

- Office of EPAC (1986b), **Growth in Australian Social Expenditures**, Council Paper No. 17, Canberra: AGPS.
- Office of EPAC (1987), **Aspects of the Social Wage: A Review of Social Expenditures and Redistribution**, Council Paper No. 27, Canberra: AGPS.
- Saunders, P. (1987), **Growth in Australian Social Security Expenditures, 1959-60 to 1985-86**, Social Security Review, Background/Discussion Paper No. 19, Canberra: Department of Social Security.
- Saunders, P. (1988), 'Measuring the Size and Growth of the Public Sector in Australia' in M. James (ed.) **Restraining Leviathan. Small Government in Practice**, Sydney: Centre for Independent Studies; pp. 11-45.
- Saunders, P. and Klau, F. (1985), **The Role of the Public Sector. Causes and Consequences of the Growth of Government**, OECD Economic Studies, No. 4, Spring, Paris: OECD.
- Saunders, P. and Whiteford, P. (1987), **Ending Child Poverty: An Assessment of the Government's Family Package**, Social Welfare Research Centre, Reports and Proceedings No. 69, Sydney: SWRC.
- The Treasury (1986), **Tax Expenditures Statement**, Canberra: AGPS.
- The Treasury (1988), **Tax Expenditures Statement, December 1988**, Canberra: AGPS.

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