WORKING PAPERS IN ECONOMICS

"Access to Housing Finance
and the Campbell Report:
the Implications of Implementing
the Recommendations of Chapter 37"

by

Judith Yates

No.60   July 1982

DEPARTMENT OF ECONOMICS

The University of Sydney
Australia 2006

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1 Introduction

This paper considers those recommendations of the Campbell Report which
are specifically related to housing finance and examines the possible
implications for the cost, availability and distribution of housing finance
of implementing these recommendations. There are, in fact, only two
recommendations arising out of chapter 37, the chapter specifically concerned
with housing finance. The first of these relates to deregulation of
portfolio constraints (37.91) and states

> "Subject to appropriate prudential requirements - the most important
> of which would be asset quality/capital ratios - the present
> restrictions on the asset structures of savings banks and permanent
> building societies should be removed."

The introductory provisory phrase possibly suggests that the re-regulation
phrase coined by Kane (1980) in response to the 1980 Deregulation Act in
the U.S.[1.] might be equally appropriate here. The second recommendation
relates to the removal of the preference given to lending for newly
constructed houses (37.99)

> "The provision in the Commonwealth Banks Act requiring the Commonwealth
> Trading and Savings Banks, in making housing loans, to give preference
> for the erection of homes and for the purchase of newly erected homes
> should be repealed."

The issue which has received most of the popular attention, however, is
stated only as a conclusion in chapter 37 (37.77)

> "There is no justification for retaining interest rate controls as an
> instrument of housing or welfare policy."

but is formally presented as a recommendation in an earlier chapter (4.26)

> "All official intervention in the determination of bank deposit and
> lending interest rates should cease and existing controls should be
> abolished."

Obviously, many of the recommendations in other chapters do have a direct
bearing on housing finance; for example (4.29)

"Maturity controls should be abolished"

and (19.123)

"The restriction on sources of savings bank deposits should be removed."

In assessing the "effectiveness, efficiency and equity of assisting housing
... through regulation" (37.38) the Committee concentrates on the impact
of interest rate regulation and the effects of portfolio constraints.
This emphasis will be maintained in this paper. In the Report, however,
the effects of interest rate deregulation on the cost and availability of
finance were examined without any explicit reference to portfolio
constraints (37.40 - 37.81); likewise, the Report went on to examine the
implications of deregulation of portfolio constraints (37.82 - 37.99)
without making it clear as to what assumptions had been made about interest
rates.   Although the effects of implementing these recommendations are
obviously interdependent, section two of this paper will initially consider
the effects of interest rate deregulation on the explicit assumption that
portfolio constraints remain unchanged and section three will then consider
the implications of deregulating portfolio constraints on the assumption that
interest rates have been deregulated.   In both of these sections, the
analysis will be based on the assumption that the demand for housing
finance is unaffected by changes in relative interest rates and responds
only to changes in the mortgage rate.[2]   The effects of relaxing this
assumption about demand will be briefly considered in section four and
the distributional implications of deregulation for two extreme
assumptions about its impact on the cost and availability of finance
will be examined in section five.

2   Interest rate deregulation

As indicated above, the impact of interest rate deregulation on the cost
and availability of finance is initially considered on the assumptions
that portfolio constraints remain as is and that the demand for housing
finance is unaffected by regulation (or deregulation).   The analysis in
this section is based on a simplified model of the financial system which
is consistent with the observations and arguments presented in the Report
but which makes explicit the type of assumptions which need to be made in
order to arrive at the Report's conclusions.   These conclusions will
then be evaluated on the basis of their underlying assumptions.

2.1   Supply of funds from regulated institutions

The Committee argues that (37.55)

> "deregulation will .. tend to make housing funds more readily available
> from housing finance specialists (albeit at slightly higher interest
> rates)."

and that (37.17)

> "failure of housing finance intermediaries to lift their rates at a
> time of generally rising interest rates will, other things being equal,
> lead to a loss of deposits to competing intermediaries."

Their arguments, therefore, are explicitly based on the assumption that the
flow of funds into (or out of) housing finance intermediaries is sensitive
to interest rates and to interest rate differentials between regulated and
non-regulated institutions.   Appendix 37.1 of the Report presents some
perfunctory evidence that this assumption is valid.   Reliable and consister
measures of this sensitivity of deposit flows to interest rate differentials
between deposit taking institutions, however, is generally not available
since "estimates of interest rate and income elasticities are surprisingly

unstable" (Evans, 1979, p 55). In other words, the Committee apparently envisages a supply schedule for housing finance from regulated institutions as given in Figure 1 below. Here $S_0^R S_0^R$ shows the response of the supply of funds for housing finance from regulated institutions which results from an increase in their deposit and lending rates for a given rate of interest (r_0) in unregulated markets. This supply curve follows if it is assumed that regulated institutions operate on a fixed margin between mortgage and deposit rates and that deposits into these institutions are interest sensitive. $S_1^R S_1^R$ similarly shows the supply of funds from regulated institutions when the unregulated market rate of interest increases to r_1.
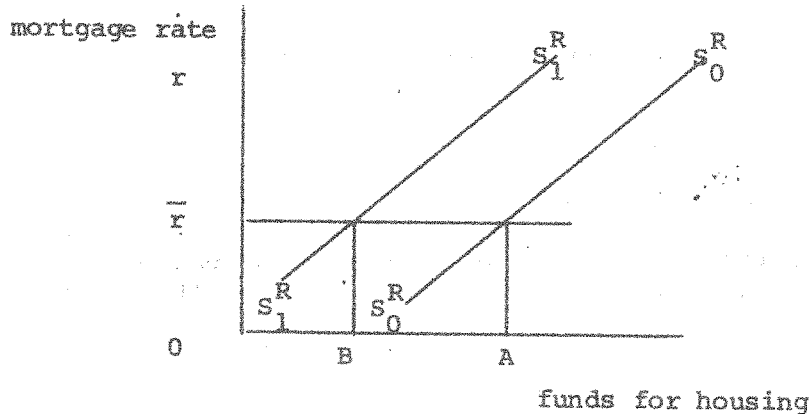

Figure 1: Supply of funds for housing from regulated institutions

If interest rates are regulated at $\bar{r}$ and the current rate of interest in unregulated markets is r_0 then OA will be supplied by regulated institutions; if the unregulated rate increases to r_1 and the regulated rate remains unchanged, only OB funds will be supplied by regulated institutions. The extent to which such a movement takes place is dependent upon the assumption made about the total supply of savings in the economy. If savings are

fixed then increases in interest rates in the unregulated sector which
result in increased differentials between unregulated and regulated
rates are likely to decrease the supply of funds going to regulated
institutions; if total savings respond to general increases in interest
rates, however, changes in interest rate differentials, whilst they are
likely to decrease the share of funds going to regulated institutions,
may not have such an unambiguous effect. Presumably the Committee had
the former possibility in mind, or believed that any substitution effect
outweighed the income effect if the latter was the case.

For a given rate of interest in the unregulated market, deregulation of
interest rates is thus assumed to make funds more readily available from
housing finance specialists. This argument that there will be a flow of
funds into specialist housing finance institutions if interest rates were
deregulated (given the assumption of no change in portfolio constraints)
would present no difficulty if there were only one type of specialist
housing finance institution with one set of interest rate controls.
Difficulty immediately arises, however, from the fact that there is not
just one type of specialist housing finance institution.   Given this, the
argument that a decrease in the interest rate differential between
regulated and unregulated institutions will increase the funds available
for housing depends on an implicit assumption that the current interest
rate differentials between the different housing finance institutions
within the regulated market are those which would exist in a free market.
The Committee makes no attempt to determine whether or not this assumption
is valid.   Building societies are subject to a wide range of interest
controls which vary between States and differ from Federally imposed
controls on savings banks.   To the extent that removal of these controls
results in a reduction in the current interest rate differential between
building societies and banks, deregulation could result in a significant
redistribution of funds from building societies to banks.   Since, on the
basis of existing portfolio constraints, building societies currently lend

about 85 per cent of their funds for housing compared with only 60 per cent for savings banks, such a redistribution could lead to a reduction in the overall funds available for housing, even with a net inflow into these housing finance institutions.[3] Thus, although it can be concluded that there will be a net inflow of funds into specialist housing finance institutions as a result of a reduction in the interest rate differential between regulated and unregulated institutions, it does not necessarily follow that this will lead to an increase in funds available for housing. This will depend on what happens to interest rate differentials between regulated institutions. For simplicity, however, any potential change in interest rate differentials between regulated institutions is ignored in the rest of this analysis; in other words, regulated rates are assumed to move in unison.

On the basis of this analysis, if there is a general rise in interest rates in the economy, the two extreme responses of doing nothing to regulated rates (or making adjustments which lag significantly behind changes in the market) or of deregulating all interest rates have obvious effects. The first option unambiguously results in a reduction in the supply of funds available for housing (compared with the funds which could have been expected had interest rate differentials not changed) but those which are available will be obtainable at relatively low rates of interest; the second option unambiguously causes interest rates in regulated institutions to rise but protects these institutions from a significant outflow of funds and offers the possibility of increased funds for housing finance becoming available. The Committee clearly believes that the first response will not ensure an adequate supply of housing finance[4] (nor a satisfactory distribution of that which is available) and prefers the second response.

2.2   Cost of housing finance

The Committee does offer a palliative to those who would reject
deregulation of interest rates because of the inhibiting effect of
higher interest rates on households wishing to become owner-occupiers
by stating that (37.54)

> "the Committee does not believe that the effective cost of housing
> finance would necessarily rise appreciably on average as a result
> of the deregulation of interest rates."

The argument that the effective cost of finance would not rise appreciably
on average with the deregulation of interest rates (even though the rates
from regulated institutions would rise) depends primarily on the
assumption that (37.72)

> "the need to seek supplementary finance typically involves the
> borrower in higher costs, since funds are obtained from less
> regulated sources (eg finance companies)' charging higher rates."

Given this, the Committee goes on to conclude that

> "The overall cost of funds - comprising the lower rate charged by
> the regulated source and the higher rate charged by the unregulated
> supplementary source - may often be higher than a savings bank or
> building society would charge for a single loan if they were allowed
> to charge a market rate."

In order to illustrate the key assumptions which must be made in order to
reach this conclusion, the simple model of the housing finance sector
initiated by Penner and Silber (1973) and developed by Tucillo et al (1981)
will be used here.   In this model there are only two types of housing
finance intermediaries;   regulated and unregulated.[5]   For each type of
institution the capacity to supply housing finance is obviously limited
by its capacity to attract funds.   For regulated institutions with
portfolio restrictions which result in a high proportion of assets being

held as mortgages, this dependence of the supply of housing finance on the capacity to attract funds is reflected in the supply schedule assumed in Figure 1. For unregulated institutions with no special incentives to hold mortgages, the supply of housing finance will depend on the degree of substitutability between mortgages and other assets. This, in turn, will depend on the risk characteristics of mortgages and the risk preferences of the institution. If mortgages are perfect substitutes for other assets or if institutions are risk neutral, the supply curve for mortgages will be infinitely elastic at the existing interest rate. If they are very good substitutes with other assets and the financial system is large relative to mortgage markets, the supply schedule will be highly elastic.[6.] For simplicity, an infinitely elastic supply curve for housing finance from unregulated institutions has been shown in Figure 2 since the distinction between this assumption and the more realistic one of high substitutability is immaterial for the purposes of this analysis. The relevant supply curve $S_0^U S_0^U$ has been shown for an interest rate of r_0 for unregulated institutions.
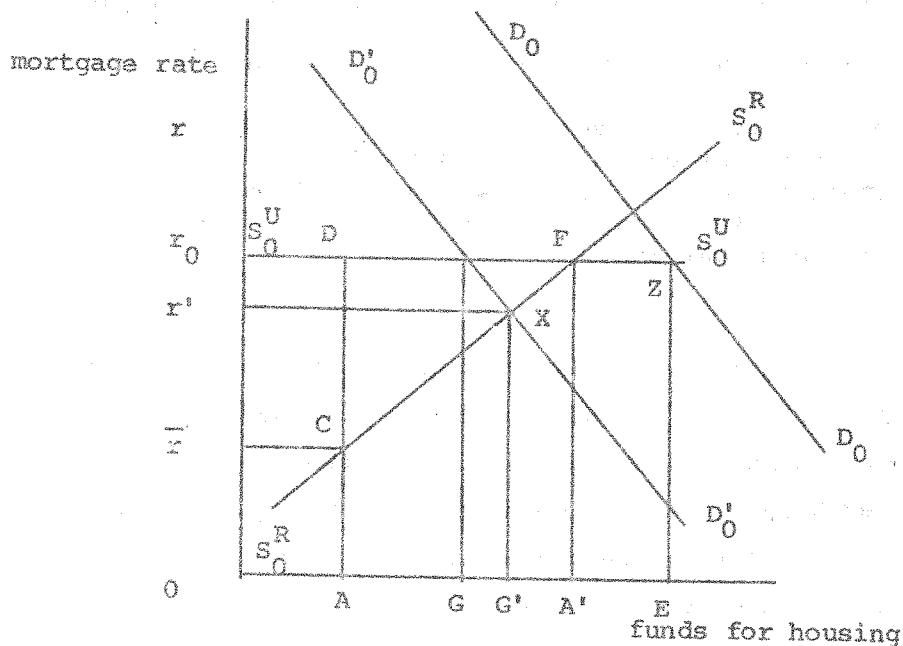

Figure 2: Housing market with independent supply schedules

With interest rate regulation at $\bar{r}$ the total supply curve for housing finance is given by $S_0^R CDS_0^U$. If demand is given by $D_0 D_0$ then the total supply of funds for housing finance is given by OE, with OA provided by regulated institutions at a rate $\bar{r}$ and AE provided by unregulated institutions at a rate r_0. The current effective cost of finance as defined in the Report is given by $(OA.\bar{r} + AE.r_0)$.[7] If the market rate of interest in currently unregulated markets is unaffected by deregulation and remains at r_0 then the supply schedule $S_0^R S_0^R$ is the appropriate schedule for regulated institutions and the total supply schedule for housing finance would be given by $S_0^R FS_0^U$.[8] With demand given by $D_0 D_0$, equilibrium occurs at the point Z and the total supply of funds for housing finance remains unchanged at OE with the regulated institution's share increasing to OA' and that of the unregulated institution decreasing to A'E. In this case the cost of finance rises to the previous unregulated rate r_0, an unambiguous increase over the previous effective cost of finance, and there is no compensating increase in the supply of funds.

If demand is given by $D_0'D_0'$, then before deregulation OA finds are provided by regulated institutions and AG by unregulated institutions, giving a total supply of funds for housing finance of OG. After interest rate deregulation, equilibrium occurs at point X and all OG' funds are provided by the regulated institutions at a rate r' which may or may not exceed the previous effective cost of finance prior to deregulation. In this case the total supply of funds has increased and the previously regulated rate has increased to a value above its old rate and below the previously unregulated rate which is now irrelevant. The inflow of funds into specialist housing finance institutions will be greater and the resultant rate of interest lower the more responsive is the supply curve for housing finance from regulated institutions to its own rate of interest. The inflow of funds will similarly be greater, the more interest elastic is the demand for housing finance, but the resultant rate of interest will be higher the more interest elastic is demand.

Similar, but more pessimistic, results arise if it is assumed that the market rate of interest does rise with deregulation of interest rates because of the effects of an outflow of funds from unregulated institutions. When this is the case, the supply schedule for unregulated institutions shifts up to $S_1^U S_1^U$ at an interest rate r_1, the supply schedule for regulated institutions shifts to the left to $S_1^R S_1^R$ as shown in Figure 1 and these changes result in a lower supply of funds and a higher rate of interest compared with the case when deregulation had no impact on rates of interest in the unregulated market. The post regulation case for just one possible demand curve is shown in Figure 3 below.
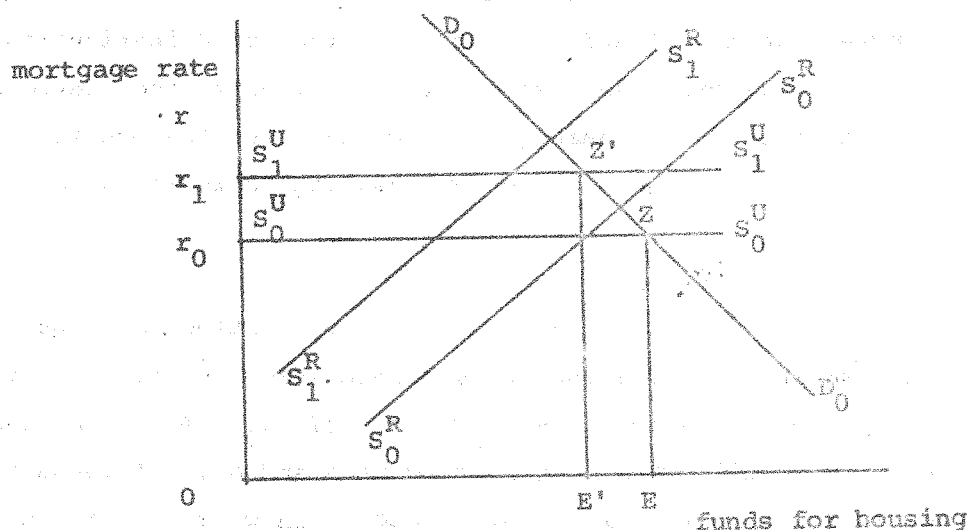

Figure 3: Housing finance market with interdependent supply schedules

With no interdependence between the supply schedules, equilibrium occurred at point Z with OE funds being provided at an interest rate of r_0. With interdependence, equilibrium occurs at Z' and OE' funds are provided at an interest rate of r_1.

On the basis of this analysis, therefore, it is obvious that the
qualifications to the Committee's claim that the cost of housing finance
will not necessarily rise appreciably on average and that the current
effective rate may be higher than a single rate after deregulation are
essential. Whether the effective rate rises, falls or remains steady
is dependent on the interest elasticities of the relevant demand and
supply schedules and on the overall determinants of demand and supply.
In the most pessimistic case, housing interest rates could rise to
levels prevailing in the unregulated market and the total supply of funds
available for housing could fall. It is only in the most optimistic
case when the supply of funds for housing increases (and is totally
provided by regulated institutions) that there is even the possibility
that the effective cost of finance will not rise.

3 Portfolio deregulation

All of the analysis in the previous section has been undertaken on the
assumption that the present restrictions on the asset structure of
regulated institutions remain unchanged.   This, however, is contrary
to the Report's recommendation.

When the Report was released, savings banks were constrained in their
lending behaviour both by constraints on their total asset portfolios
and by the 60/40 rule, although if the 60/40 rule was an effective
constraint it must be regarded as protecting funds for the government
sector, not for housing since its relaxation could mean that, with
a given supply of funds available to regulated institutions,
housing could be expanded at the expense of the government sector.   There
is, however, some doubt that the constraint was effective when the
Report was released since only two savings banks at December 1981 had
presecribed asset ratios less than 41.5 per cent; for the remaining
banks the ratios varied from 44.5 per cent to 51.8 per cent,[9] which
suggests that they could have loaned more for housing had they chosen to
do so (or had it been profitable for them to do so).   Since the Report
was released the 40 per cent prescribed assets ratio has been replaced by
a 15 per cent liquidity requirement,[10] which means that there is now no
effective constraint in relation to how much of available finance could
be lent for housing by savings banks.

Building societies have had no exact equivalent of the 60/40 rule; the
restrictions generally imposed on their asset structures by State
governments relate to certain minimum liquidity criteria (and are thus
possibly within the realm of what the Committee would describe (37.91)
as "appropriate prudential requirements").   Any restraint on the
availability of funds for housing finance, therefore, arises primarily
from the flow of funds into the building societies, not from the allocation
of these funds between the various assets held.

On the basis of these observations, any removal of existing restrictions on total asset structures cannot have the effect of increasing funds for housing finance for any given supply of funds available from regulated institutions except in the short run as the banks adapt to the change from a 40 per cent prescribed asset ratio to a 15 per cent liquidity ratio and attempt to meet the increased target for lending for housing.   The existence of portfolio restrictions, in general, has meant that housing, along with the government, has been a protected sector.   It is the continued existence of these constraints which will maximise the supply of funds available for housing finance in the light of interest rate deregulation.   Although the Committee suggests that (37.8

"in practice .. it is most unlikely that any substantial move out of housing would occur, at least in the short to medium term"

they can give no reassurance that such a move will not occur in the long term.   That it will, is almost certain if institutions which are currently regulated are to be allowed "maximum portfolio flexibility". The suggestion that the removal of any existing asset restrictions needs to be gradually phased in (37.92) gives implicit support to the argument that the Committee has been unduly optimistic in claiming that it is unlikely that there will be short or medium term disruption to housing finance.   Disruption, in this sense, is to be interpreted as meaning a decline in funds available for housing for any given total supply of funds in regulated institutions.

In terms of the anlaysis presented in section 2, a reduction in the share of funds going to housing for a given total supply of funds in regulated institutions is equivalent to a leftward or an upward shift of the relevant $S^R S^R$ supply schedule.   The opening up of investment opportunities by allowing portfolio flexibility is equivalent to making this supply curve for mortgages from regulated institutions more elastic.   If there were complete deregulation and financial markets were competitive, there is no reason why the supply curve for housing finance from regulated institutions should not eventually be similar to that from unregulated

institutions. Funds will be available at a lower rate of interest
than that charged by these intermediaries only if regulated institutions
are more efficient than their unregulated counterparts, or are able
to attract deposits at a lower rate of interest. If the supply
schedule for regulated institutions was indistinguishable from that for
unregulated institutions, equilibrium would occur at the interest rate
r_1 in Figure 3 and the equilibrium supply of funds would be demand
determined. As long as r_1 exceeded r_0, this equilibrium supply of funds
must be less that prior to deregulation and the equilibrium rate of
interest higher than the previously unregulated rate. The optimistic
claim that the new effective cost of finance will be less than r_0 can
only be valid if, after deregulation, currently regulated institutions
alone are able and willing to provide more than the total supply of funds
previously provided by all housing finance institutions at a lower rate
of interest than that charged in unregulated markets prior to deregulation.
In section 2.2 the conditions necessary for this to happen with interest
rate deregulation alone were outlined. It is less likely to occur
with both portfolio and interest rate deregulation than with interest
rate deregulation alone because of the increased incentive for regulated
institutions to move out of housing and into other assets.

The results of the analysis in sections two and three suggest that the
Committee's claim that deregulation would result in an increase in the
cost of finance from housing finance specialists is their only conclusion
which holds without qualification. Their conclusion that this increase
in interest rates would make housing finance more readily available from
these institutions is dependent on the assumption of no significant
portfolio changes away from housing after deregulation and no significant
redistribution of funds between regulated institutions. Their conclusion
that the effective cost of finance need not rise is based on the
assumption that, after deregulation, all housing finance will be provided
by previously regulated institutions and that the total supply of funds

available for housing will increase.   As well as depending on no
significant portfolio changes, this also depends on the responsiveness
of supply to interest rates and to interest rate differentials and on
the factors affecting the underlying demand for housing finance, as was
shown in Figure 3.   These latter factors will be considered in the
following section.

4 Deregulation and demand

In the previous two sections, the analysis was undertaken on the
assumption that the demand schedule for housing finance remained
unaffected by changes brought about by deregulation. This is consistent
with the view that the demand for housing finance is derived from a long
run demand for housing which, in turn, depends on income, relative
prices, household formation and other demographic factors and is
independent of financial variables. This view, however, tends to be
biased heavily towards the consumption aspects of housing demand and
ignores the fact that the demand for housing is also an asset demand.
As such, it is likely to be affected by the real rate of return on
housing. This will decrease with any increase in the effective cost
of finance. The Committee suggested (footnote 24 to 37.53) that the
effects of increased interest rates might be mitigated by a reduction
in demand for housing bringing about a reduction in house prices.
This would arise if the interest subsidy had been capitalised into house
prices or if real interest rates directly affected demand. The
Committee gives no evidence for Australia for either of these possibilities.
Albon and Piggott (1982b) discuss the first possibility and conclude
that there is little likelihood that the subsidy has been capitalised
because of a highly elastic supply of housing. There is no information
regarding the second possibility for Australia, but limited econometric
evidence from Canada and the U.S. (see, for example, Scheffman and
Slade (1981) for recent estimates) does suggest that there is a small
negative elasticity of house prices in real terms with respect to the
real mortgage rate ranging from -.01 to -.04. With an inflation rate
of approximately 10 per cent, an increase in nominal mortgage rates from
12.5 per cent to 14.5 per cent represents an 80 per cent increase in real
mortgage rates (from 2.5 to 4.5 per cent); on the basis of the above
estimates, this would lead to a decrease in real house prices of anything

upto 3.5 per cent. Similarly, an increase from 12.5 per cent to 18 per cent could lead to a decrease in real house prices of upto 10 per cent. However, for the U.K. where interest rates have been regulated and so prevented from reacting to changes in market forces (as has been the case in Australia), Nellis and Longbottom (1981) have shown that an increase of 10 per cent in the stock of real mortgages could be expected to raise house prices by 7.6 per cent. In other words, there may be conflicting forces at work in relation to house prices and deregulation in a situation such as that Australia could be in. The Committee's suggestion, therefore, is possibly valid but is optimistic in that it ignores the possible offsetting effect of any increase in the supply of mortgage finance available.

Kearl, Rosen and Swan (1975) give a useful survey of U.S. econometric studies designed to measure the potential interactions of increased interest rates, increased supply of mortgage funds and the impact of changes in other mortgage characteristics (such as loan to valuation ratios, amortisation period) via the effect they have on the stream of real repayments over time. They conclude that although there is a considerable consensus amongst researchers as to the direction of these effects there is less agreement as to their magnitude which means that the net effect cannot be deduced.

A more direct factor which has sustained the demand for housing and hence the demand for housing finance relates to the "affordability" of housing. The combination of inflation and the tax treatment of owner-occupied housing has meant that in the past decade or so housing has provided households with a better rate of return than could be obtained from financial assets and, indeed, from other real assets. Removal of these tax incentives and/or a reduction in inflation may well be a far more effective means of improving access to owner-occupation through the reduction it has on house prices than any attempt to offset the high cost

of interest.   Figure 4 below, taken from the Report, shows evidence of
this advantageous rate of return on housing despite the fact that the
estimated rate of return on housing in this figure is likely to be
downward biased because the price of housing used in its derivation was
based on a cost of construction index and so ignored increases in the
price of land and because the rate of return was based on the assumption
of 100 per cent equity and so ignored the high percentage yields which
can be obtained from a geared investment.   On investment in shares,
the Committee states (33.38)

> "in the uncertain economic climate of the 1970's, the risk/return
> characteristics of shares have not been as attractive as those
> possessed by other investments available to the individual investor -
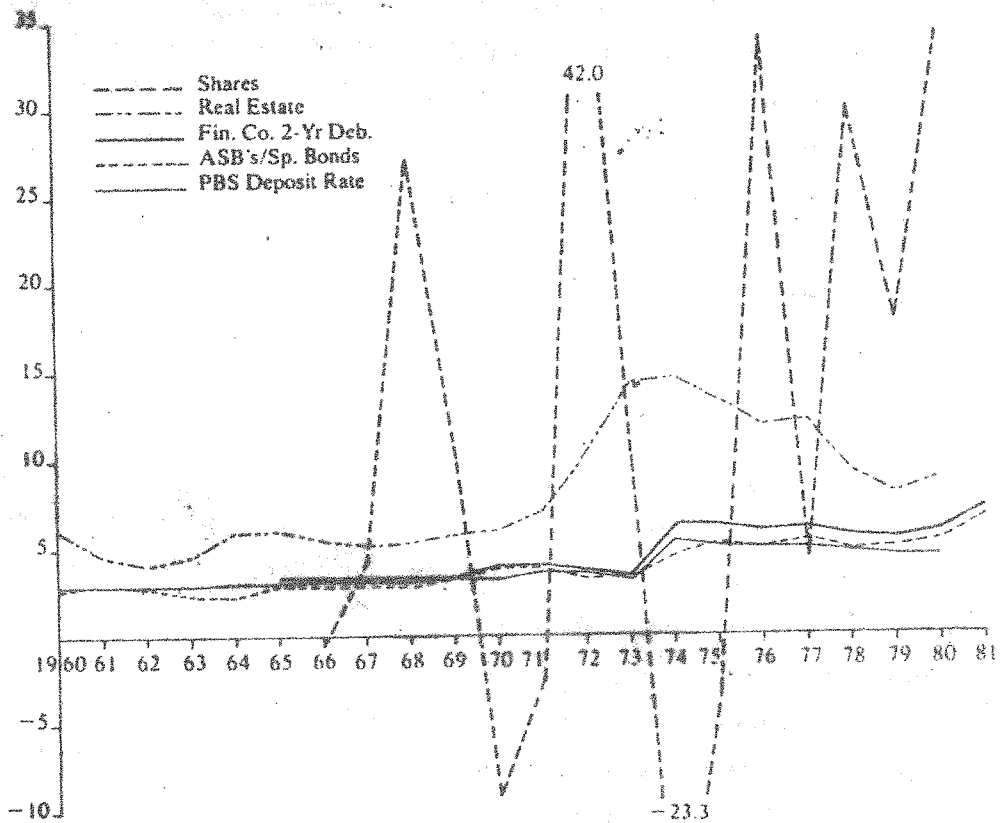> in particular, certain classes of real estate."

Figure 4:   After tax rates of return on selected household investments (%)

Source: AFSI, Final Report, Figure 33.2

Recent U.S. and U.K. writers[12] have argued that too little consideration
has been given to this investment aspect of housing and that an increase
in the ratio of first or early year's housing outlays to income, brought
about by an increase in interest rates, does not necessarily imply
reduced affordability of housing even though it may mean decreased
consumption opportunities for households in those early years of home-
ownership.   Instead, it is possible to argue, as Tucillo (1980 p15) does,
that "the affordability of ownership, i.e., whether or not the current
price of housing as a real asset is too high, depends on the rate of
return to home-ownership".   Rises in interest rates induced by inflation
will generally be associated with increased affordability in this sense;
the inflation premium associated with such increases is merely paying
for capital gain and should not be treated as a housing expense.
Atkinson and King (1980, p11) argue that "high money interest rates do
of course lead to cash flow difficulties - the front end loading problem -
particularly for those with a low equity stake in their house.   This
may in turn be a serious deterrent for would-be owner-occupiers.   These
difficulties have received a great deal of attention and bring out the
need for measures to change the time path of payments;   they should not,
however, be taken as representing the generality of experience of owner-
occupiers, nor as indicative of the effect of inflation on the long term
cost of housing.   A rise in the rate of inflation, accompanied by a rise
in money interest rates, so that real interest rates are unchanged, does
in fact lower the capital cost of housing .. One consequence of the high
rates of inflation which have characterised the 1970's is that the capital
cost to owners has fallen significantly."

On the other hand, rises in interest rates due to 'real' factors will
lower the real rate of return on housing and imply decreased affordability.
Which of these aspects is relevant with deregulation is important in
determining whether overall affordability will decline in comparison
with some acceptable benchmark.   Given that for some households the real

cost of housing has been negative in recent years, considerable increases
in interest rates might be necessary before the absolute advantage that
owner-occupied housing has over other forms of investment is eliminated.
Whilst owner-occupied housing does provide a better rate of return than
other forms of investment, it will remain 'affordable' and demand will
remain high.

Finally, in relation to demand, the Committee expected that, in a more
competitive environment, there would be (37.50)

> "greater scope and commercial incentive to use 'income geared' loans
> of the 'low start' or deferred repayment variety"

and claimed that these influences might mitigate the impact of interest
rate increases (37.48). They did not discuss the possibility that the
effect of widespread introduction of alternative mortgage instruments
might be to expand demand. Evidence that this could be so is given in
Follain and Struyk (1977) who, in a study based on a combination of
simulation and U.S. econometric evidence, concluded that the use of such
instruments could significantly increase home-ownership rates amongst all
but the highest income groups. The mortgage instrument used as a basis
for comparison in their study was a FRM (fixed rate mortgage) which was
the standard mortgage instrument used in the U.S. at the time of the
study. Vandell (1978), using a similar approach, shows that alternative
mortgage instruments based on deferred repayment schemes and fixed interest
rates would increase home-ownership over all income groups compared with
the use of a standard fixed rate credit foncier mortgage but that any move
to a variable rate mortgage instrument (as currently used in Australia)
would reduce home-ownership, particularly amongst the lower-middle income
and aged groups. The converse of Vandell's results would be that any
movement away from a variable rate mortgage instrument towards various
fixed rate, deferred payment schemes would improve the prospects for
older, middle income earners entering home ownership.

The Committee also did not discuss the possible short run reduction in
the availability of funds for housing (through reduced repayments) and
the potential cash flow problems which might arise if institutions were
unable to introduce such flexibility on both sides of the balance sheet.
Any increase in demand will place additional pressures on interest rates,
as will any reduction in supply.   The net impact on the equilibrium supply
of funds and cost of finance will depend on the relative strengths of each
of these effects.

5 Distributional effects

The distributional effects of the combined impact of all of these
potential changes will be discussed on the assumption that the regulated
rate of interest must rise with deregulation but that the impact of
deregulation on the total supply of funds and on the effective rate of
interest is unknown.   As a starting point, the existing situation under
regulation is first examined and then the impact of deregulation is
considered for two illustrative cases.   The first of these is that the
total supply of funds available either decreases or remains the same and
that the effective rate of interest rises to at least the current
unregulated rate;   this is the pessimistic scenario.   The second is
that the total supply of funds available increases and the effective
rate of interest remains unchanged;   this is the optimistic scenario.
The impact of changes other than those considered can be deduced from
the discussion of these two extreme cases.   The Report's claim (37.45)
that those who predominantly borrow from unregulated institutions would
find that their effective cost of finance fell if rates were deregulated
can only be valid if the second of these two cases holds.   Their claim
that those who predominantly borrow from regulated institutions would
find that their effective cost of finance would rise follows in both cases.

5.1 *Distributional impact of regulation*

The question of who might benefit and who might lose is not systematically
examined in the Report although it is stated that (37.59)

> "low income earners are less likely to be able to obtained a 'rationed'
> loan than higher income earners".

A footnote to this statement, however, adds the qualification that

"References to 'higher income groups' should be regarded strictly as
a relative concept.   High income earners .. tend not to rely on
regulated financial intermediaries for housing finance."

At first glance, this qualification could be interpreted as implying that
high income households would therefore be likely to benefit most from
deregulation.   This interpretation, however, is hard to reconcile with
the data presented in Table 37.2 of the Report which show that in 1979-80,
nearly 50 per cent of borrowers from regulated institutions had a gross
annual income of over $20 000 when they obtained their loan.   Only 18.7
per cent of the population, however, had a gross annual income at least
equal to this at that time and fewer than 28 per cent of households who
could be classified as potential first home buyers had such incomes.
Similarly, less than 5 per cent of borrowers from regulated institutions
had gross annual incomes of less than $10 000 compared with 45 per cent of
the population or 35 per cent or potential first home buyers.

The data collected for the Victorian Home Finance Survey in March 1980
(IAESR, 1981) generally reinforce the data presented in the AFSI Report
on the income profile of borrowers[13]. as does the data from a 1980-81 survey
of bank finance conducted by the Australian Bankers' Association (1982).
Table 5.1 below presents some of the results from this more recent survey.
The data in this table show that, in 1980-81, only 16.5 per cent of
households obtaining bank finance for housing had gross incomes of less
than $15 000 per annum (which is approximately the annual equivalent of
June 1981 male average weekly earnings).   On the basis of the 1978-79
income distribution figures presented in the AFSI Report, nearly 60 per
cent of all households had incomes less than (the then applicable) male
average weekly earnings.

Unfortunately, distributional information on first mortgage finance from
regulated institutions gives no guide as to the distribution of first
mortgage or supplementary finance from unregulated institutions and
evidence on the latter is fragmented or limited by small sample sizes.

The Victorian survey indicated that the average first mortgage loan
from institutions other than banks, building societies and the government
was only marginally less that than provided by regulated sources and that
only 4.8 per cent of all first mortgage loans came from such sources.
Since these sources included Credit Unions, Finance companies, Life
Assurance companies, the State Superannuation Board, the Defence Service
Home Corporation and Trust companies, it is reasonable to assume that the
unregulated sector, on the basis of this data, provided considerably
less than 5 per cent of total housing finance as first mortgage loans.
The number of applications to these 'other' institutions was approximately
evenly distributed across income groups (with 6.1 per cent of all lower,
7.4 per cent of lower middle, 5.4 per cent of upper middle and 7.7 per cent
of upper income groups applying) but no information is provided on the
distribution of first mortgage loans approved, nor on the size of these
loans for each income category.   The survey does conclude, however,
(p 43) that "the large majority of lower income applicants were not forced
to borrow from the relatively high cost finance sources."

For supplementary finance, data from this survey suggest that 20 to 25 per
cent of all borrowers rely on supplementary borrowing[14].   Data from
the Australian Bankers' Association, based on first mortgage bank finance
only, give a slightly higher overall figure.   They show that 23 per cent
of all bank borrowers surveyed relied on supplementary bank finance
(primarily fixed or personal loans) and 4 per cent relied on non-bank
supplementary finance (predominantly from building societies or from
finance companies).   However, as can be seen from Table 5.1 and as was
concluded in the Victorian survey (IAESR, 1981, p13), "while there is a
fairly high incidence of secondary (i.e. other than first mortgage)
borrowing, .. the actual contribution to total home finance of non-first
mortgage funds is for most borrowers quite small."   Table 5.1 shows
that for bank borrowers supplementary financing, on average, represents
only 12.0 per cent of total borrowing and varies only from 9.1 per cent

to 13.7 per cent for all but the highest income group for whom
supplementary finance represents 22.1 per cent of total borrowing. On
the basis of the same data as used in Table 5.1, supplementary borrowing
from unregulated sources (i.e., not from banks, building societies or
government institutions) for first mortgage borrowers from banks
represents only 1.3 per cent of total funds borrowed for housing finance
by the borrowers. The importance of supplementary borrowing from
unregulated sources varied from 0 per cent of total funds borrowed for the
lowest income group to 2.8 per cent for the second highest income group.
The data from the broader based Victorian survey show that first mortgage
loans accounted for over 90 per cent of the borrower's total loan package
in the vast majority of cases (in 85.9 per cent of bank first mortgage
loans, 89.8 per cent of building society loans, 87.6 per cent of other
institution loans and only 70.0 per cent of government institution first
mortgage loans). In fact, the data from this survey, given in Table 5.2,
show that, on average, second mortgage finance was an even smaller
proportion of the total loan package for successful home finance borrowers
in Victoria (from all lending institutions surveyed) than indicated by the
data based on banks alone. From Table 5.2, supplementary financing for
all borrowers contributed a very small 2.6 to 3.4 per cent to the total
loan package of all borrowers in any income group in Victoria.[15.] Table 5.3
below shows the distribution of this supplementary finance. The Victorian
data also show that, although bank borrowers obtain lower average first
mortgage loans and buy more expensive houses than borrowers from building
societies, the difference is made up by higher initial equity and not
by increased supplementary finance.

The extent to which lower income households are able to make use of higher
cost finance, either as first mortgage finance or as supplementary finance,
depends, of course, on their capacity to repay. The data presented in
Tables 5.1 and 5.2 show that households in the lowest income categories
receive loans which are considerably smaller (by as much as 50 per cent)
than the average loan received by those in the higher income categories.

Table 5.1: Bank Loans Approved: Sydney, Melbourne, Adelaide, 1980/81 a.

Household income	Purchase price of dwelling	Sources of funds				Supplementary finance			Number of cases
		Sale of previous dwelling	Deposits with financial instns	Other cash	First Mortgage	Bank	Finance company	Other non-bank	
$10000 or less	44784	13000	10108	2622	16568	1324	0	1162	37
$10000 - 14999	50472	10905	10424	5596	21401	1463	86	597	337
$15000 - 19999	56956	13279	11773	4370	25194	1915	89	336	541
$20000 - 24999	63631	16466	11431	3781	28553	2872	192	336	515
$25000 - 29999	67707	15827	13701	4023	29901	3150	458	647	365
$30000 - 34999	80531	21653	13342	6367	33811	4899	255	204	196
$35000 - 39999	83641	26565	15826	3250	33652	3294	837	217	92
$40000 & over	108707	41328	16172	5103	35902	8477	805	920	174
Total	66175	17490	12419	4519	27933	3077	270	467	2257

Source: Australian Bankers' Association survey, March 1982

a. see notes on following page

Notes on Table 5.1:

The data presented in this table comes from a survey of successful
applicants for housing finance from the member banks of the
Australian Bankers' Association and the Commonwealth Banking
Corporation.   It excludes, for example, the State banks.
It was conducted on a 10 per cent sample of loans approved by these
banks in Sydney, Melbourne and Adelaide in the December quarters of
1980 and 1981.   The data from the two periods has simply been
aggregated.

Gross household income as presented represents an understatement of
total household income, particularly for higher income groups since
it based on applicant's income plus only that other family income
which was considered when making the loan.

The 'other cash' category of sources of funds (which is 7 per cent of
total sources of funds) includes gifts from family (40.7 per cent of
total other cash), other savings (35.3 per cent), finance from employer
(5.0 per cent), funds from governmental sources (3.9 per cent) and an
adjustment factor to correct for the discrepancy between total stated
sources of funds and the purchase price of the dwelling (15 per cent of
total other cash).

Bank finance (4.6 per cent of total sources of funds) was predominantly
fixed (41.7 per cent) or personal (50.3 per cent) loans.   Non-bank
finance (1.1 per cent of total sources of funds) was made up of loans
from finance companies (36.6 per cent), building societies (42.1 per cent),
credit unions (5.1 per cent) and solicitors' and trustees' funds(16.1 per cer

Only 23.3 per cent of cases had bank supplementary finance recorded and
only 3.6 per cent had non-bank finance recorded.   Consequently the data
for supplementary finance in some of the income categories is based on
very small samples (in many instances, less than 5 cases) and should be
treated with some caution.   The figures recorded, however, have been
averaged over the whole sample.

Table 5.2:   Home Finance Loans Approved: Victoria, March 1980[a].

Gross household income	Purchase price of dwelling	Equity	First mortgage	Second mortgage
'Lower'	33838	10186	22651	601
'Lower middle'	40152	14214	24802	776
'Upper middle'	42166	14050	26331	826
'Upper'	54834	20853	31480	1112

Source: Victorian Home Finance Survey (IAESR, 1981)

a.   see notes on following page

Notes on Table 5.2:

Grateful acknowledgement is made to Tony Nippard of the IAESR who provided
the data on first and second mortgages and on the source of second mortgage
finance at very short notice.

The data for the Victorian Home Finance Survey was collected in March 1980
for the Victorian Ministry of Housing's Housing Policy Review.   It is
based on 5862 questionnaires filled out for all applicants for home finance
by the officers of the relevant lending institutions and is believed to
have achieved "a high degree of coverage of applicants" although one large
permanent building society was not covered by the survey and the proportion
of applicants to Victorian Government home-financing institutions was
considerably over-represented because of a decision to extend the sample
period over a number of months for these institutions to ensure adequate
representation.   This means that the "survey data relating to loan numbers
are not strictly comparable with corresponding data for March 1980
published by the ABS."   Further details about the survey are given in
IAESR (1982).

As in Table 5.1, household income is based on applicant's income plus the
income of spouse/partner/second applicant where applicable.   Income from
pensions and endowments is explicitly included. The 'lower' income category
corresponds to a gross income range of upto $250 per week ($13000 per annum),
'lower middle' to $261 - $325 per week (or $13000 - $16000 per annum), 'upper'
middle' to $326 - $440 per week (or $16000 - $22880 per annum) and 'upper'
to over $440 per week (or $22880 per annum).   The data presented are for
construction or purchase of dwellings only and exclude loans for alterations
and additions or for other purposes.   No adjustment has been made for the
fact that the stated equity plus mortgage borrowings fall short of the
stated dwelling price.

Table 5.3:   Source of Second Mortgage Finance: All Borrowers, Victoria, 1980

Gross household income	Banks	PBS	Government	Other
	(percentages of total in each income category)			
'Lower'	11.2	72.4	16.4	0.0
'Lower middle'	26.5	36.7	32.7	4.1
'Upper middle'	12.4	49.3	29.4	9.0
'Upper'	59.8	10.3	15.5	14.4

Source: Victorian Home Finance Survey (IAESR, 1981)

    a.   see notes provided for Table 5.2

For these low income groups, the average first mortgage loan obtained
was almost 90 per cent of the maximum loan which could have been
serviced assuming a 25 year credit foncier loan, a monthly repayment
capacity equal to gross weekly income (that is, approximately 25 per cent
of monthly income) and the then current rate of interest. In other
words, low income households were already virtually extending themselves
to capacity on their first mortgage loans. The more detailed
information collected by the Australian Bankers' Association shows that
the repayment position is made even more difficult than indicated by the
assumption of an "average" loan term across all income groups since
the average loan term for first mortgage bank finance provided to low income
households was only 13.8 years (compared with 17.8 years on average).

On the basis of first mortgage repayment to household income ratios, the
Victorian survey (p56) reports that "the number of first buyers committing
higher proportions of their incomes are significantly high" and argues
"that significant numbers of the surveyed borrowers, particularly in the
lower income ranges, have committed themselves to a level of home loan
repayments which leaves little potential for absorption of changes in
circumstances - such as changes in interest rates (and hence repayments),
changes in the number of income sources etc.". The survey shows that,
for bank borrowers, over 45 per cent of households in the lowest income
category (compared with only 13 per cent of all bank borrowers) have
repayment (of first mortgages) to income ratios in excess of 25 per cent;
for permanent building society borrowers, over 60 per cent of borrowers
in the lowest income category (compared with approximately 20 per cent of
all building society borrowers) have repayment to income ratios in excess
of 25 per cent; for borrowers from the lower cost government institutions,
only 9 per cent of borrowers in the lowest income category (compared with
4 per cent of all government borrowers) have repayment to income ratios in
excess of 25 per cent and for borrowers from the 'other' institutions (which
include the higher cost sources of finance) only 18 per cent of borrowers in
the lowest income category (compared with 14 per cent of all borrowers) had

repayment to income ratios in excess of 25 per cent.

Obviously it is possible to households to extend their repayment capacity by expanding household income, particularly if only one person is currently in paid employment.[16] This option, however, is obviously not available for one person or single parent households, nor is it available for approximately half of all borrowers since these are already dual income households. See Yates (1981) for detailed breakdowns of data on borrowers from banks. For low income households, despite a very much lower proportion of dual income households[17], the fact that there has been an extremely low take up rate of the funds made available by the NSW State government under the Supplementary Housing Loans Scheme introduced in June 1981 suggests that increasing household income is not a viable option[18] and that, with existing mortgage instruments, low income households therefore have little scope for expanding their repayment capacity in order to be able to afford to repay a 'top-up' loan, even when this is offered at regulated first mortgage rates of interest. On the other hand, there is more scope for expanding repayment capacity if existing mortgage instruments are changed. The work of Follain and Struyk (1977) and Vandell (1978) quoted in the previous section shows that this is the case. Some support for the argument from Australian institutional data is given by the data presented in Table 5.4. This shows the high incidence of supplementary borrowing amongst those first home buyers with first mortgage loans from terminating building societies or from government authorities despite the fact that the majority of these are single income households with household incomes less than average weekly earnings. The fact that these households are able to obtain first mortgage finance at concessional rates of interest (in NSW loans generally start at 5 or 6 per cent and escalate by ½ per cent per annum until 1 percentage point below the long term bond rate) effectively expands their borrowing capacity and enables almost as many low income as high income households (within the income range covered by this scheme) to undertake supplementary finance.[19]

Table 5.4:   Incidence of Supplementary Finance

Source of first mortgage	Percentage with supplementary finance
Bank	21.7
Permanent building society	12.0
Terminating building society	42.2
Government/local authority	31.2

Source: 1980-81 Home Savings Grants approvals;   table supplied
by the Department of Housing and Construction, January 1982

No information is available on income groups who obtain first mortgage finance from unregulated institutions but, on the assumption that low income households who obtain finance from regulated institutions are already borrowing upto their capacity to repay on loans at regulated rates, such households could service first mortgage loans at unregulated rates of interest only if these loans were significantly smaller than those obtained from regulated institutions. A repayment capacity of $250 per month can service a 25 year loan of $25000 at 11½ per cent; it can only service a 25 year loan of $15000 at 20 per cent. Low income households undertaking such loans, therefore, must have even higher initial equity than those low income households obtaining access to finance from regulated institutions.

In summary, on the basis of the evidence from all institutional lenders in Victoria and from banks in Sydney, Melbourne and Adelaide, there is no evidence that borrowers in general, and low income borrowers in particular, on average borrow significant amounts of unregulated finance to supplement first mortgage loans from regulated institutions. Thus, although the Committee's claim (37.72) that

> "the need to seek supplementary finance typically involves the borrower in higher costs since funds are obtained from less regulated sources"

has a small element of truth, there is no support for the argument that such finance significantly affects the total loan package. On the basis of the available evidence, therefore, all borrowers from regulated institutions would be disadvantaged by rises in interest rates from regulated institutions since all predominantly borrow from regulated institutions. Predominant in this sense means that the ratio of their finance from regulated institutions to their total loan package exceeds the same ratio for the economy as a whole.[20] As stated in the Report, those who may benefit from deregulation are those who predominantly borrow from unregulated institutions; in other words, those for whom the ratio of finance from regulated institutions to total loans is less than the ratio

for the economy as a whole.   Such borrowers are those who can afford the
higher rates charged by unregulated institutions.   As acknowledged in
the Report (footnote to 37.59) they are likely to be the higher income
households.

In conclusion, interest rate regulation has not assisted the vast majority
of low income potential home buyers into home-ownership and, in fact, has
led to a disproportionate share of loans at regulated rates of interest
going to higher income households.   The small proportion of low income
households who do have loans will be adversely affected by rises in
interest rates;   the vast majority who do not have a loan, either because
they cannot afford one or cannot obtain one, will be unaffected by a rise
in regulated rates of interest.

The excess demand for funds at regulated rates of interest has led to the
imposition of various rationing criteria such as maximum repayment to
income ratios, loan to valuation ratios, minimum deposits and queuing,
many of which have been as effective in excluding low income households
from cheap finance as price rationing would be.   Under regulation and
rationing, those low income households currently gaining access to finance
at regulated rates of interest are those who require the smallest loans,
either because they have managed to obtain a large deposit or are able to
purchase a relatively low valued house (or who can do both of these).
This can be seen in the data provided in Tables 5.1 and 5.2 and is borne
out by data in Yates (1981) which show that a high proportion of low
income first time borrowers are either older than the average borrower
(and hence have had a longer time to save for a deposit) or have bought
outside the metropolitan area (where house prices are generally lower).
Young households with a low saving capacity and/or relatively high housing
needs because of the existence of children who would find it difficult to
leave the metropolitan area for any number of reasons are less likely than
older, non-metropolitan borrowers to obtain finance under rationing
criteria such as those currently employed.

In order to determine whether these results under regulation can be classified as 'ineffective' it is necessary to determine the likely distributional impact of deregulation in order to have some basis for comparison. As indicated earlier, this will be done for two illustrative cases representing the two extremes of the possible outcomes with deregulation.

5.2 Deregulation: the pessimistic outlook

The pessimistic outlook is that situation where, with deregulation, interest rates rise at least to the current unregulated rate and the total supply of funds, at best, does not decrease. As indicated in the previous sub-section, this implies that all borrowers from regulated housing finance institutions will face increased interest rates; it also implies that all borrowers from regulated housing finance institutions have benefited from   regulation, with the value of the effective subsidy being proportional to the amount of regulated finance obtained.

Given that interest rates do rise as a result of deregulation, continued access to finance for low income households currently obtaining loans can only be maintained if existing rationing criteria (in particular, the 25 per cent rule) have been unnecessarily conservative or if more flexible mortgage instruments are adopted.[21] If the 25 per cent rule has been a realistic assessment of capacity to repay then, under existing arrangements, an increase in interest rates means an increased number of households must be excluded from owner-occupation simply because their repayment capacity is too low to service the size of loan they need or because they are unable to save the deposit necessary to bridge the gap between house price and maximum loan available. With no increase in the supply of funds, there will be no incentive for institutions to introduce

schemes which extend access to finance to those low income households who currently cannot afford or cannot obtain a loan under regulation. Their only incentive to innovate will be limited to a desire to protect existing marginal borrowers from interest rate rises if these households are unable to afford the additional repayments required. Initially, however, the combination of buyer resistance (partly brought about by ignorance and partly by uncertainty about future earning capacity) and institutional inflexibility (brought about in part by the mismatching of the flow of funds from assets and liabilities that such schemes would bring if introduced on one side of the balance sheet alone) means that it is likely that increased pressure will be placed on low income households to encourage them to expand their current repayment capacity. If this is the case, those households who will benefit are those who consist of two potential income earners. Many such households, however, may have already utilised their potential two income status in order to gain access to finance at regulated rates. To the extent that insufficient households are able to further expand their repayment capacity and so absorb available funds, deferred repayment schemes which reduce the initial burden of repayment will have to be introduced. If deregulation brings with it innovation in mortgage financing to offset the resultant increased interest rates, those marginal low income households most likely to benefit are those whose potential income earning capacity is perceived as being highest, since it is this which will determine their assessed ability to service increased repayments over time. They may not be amongst those who currently inflate their immediate repayment capacity by temporarily relying on two incomes; they are more likely to be those who either apparently have permanent two income status or those for whom the household head's earning capacity is such that the household will not remain in its current relatively low income status throughout its life-cycle.

In other words, in the pessimistic case being considered here, with no increase in total funds available, there is a potential redistribution of

funds at the margin with deregulation. Funds may go from those households with a low repayment capacity who gain access because they require only a small loan to those whose current repayment capacity is low but whose potential earning capacity is seen as being relatively higher. They are likely to be those who would have been able to gain access on existing rationing criteria if they had waited a few years.

The necessity for innovation on the part of lending institutions would be considerably reduced if subsidy schemes such a tax deductibility of interest repayments or temporarily subsidised interest rates or assistance with repayments for some period of time are introduced since these, of themselves, are specifically designed to overcome the access problem created by high interest rates. As with flexible mortgage instruments, if there is no impact on the supply of funds available, such subsidy schemes can only extend access to a wider range of households if they result in some households already obtaining finance being crowded out.

If the supply of funds for housing decreases after deregulation there will be even less incentive for institutions to innovate; the rise in interest rates will squeeze those marginal borrowers unable to meet repayments and the reduced supply of funds will be made available to those who can afford the increased interest charges.

None of these alternatives provide an optimistic outlook for the distributional implications of increases in housing interest rates: innovation in mortgage finance arrangements may only help those who would eventually be able to help themselves; subsidy schemes may only maintain access for those able to obtain a loan under existing conditions of regulation and rationing. This situation, however, needs to be compared with that which would result from existing regulations remaining in force. In the light of current market forces, this will lead to a continuing decline in the supply of housing funds available. This, in

turn, must lead to stricter rationing criteria being employed, either in
the form of reduced loan terms, repayment to income ratios, loan to
valuation ratios, maximum loan sizes available or increased deposits or
waiting times. All are likely to continue to work against low income
households and so confer an increasing proportion of the subsidy to be
gained from interest rate regulation on higher income groups. As at
present, some lower income households will continue to gain access to
housing finance under stricter rationing criteria if they are able to make
a sufficiently favourable trade off between deposit and loan size to
persuade the lending institutions that they are a better risk than a
higher income household unable to provide such a large deposit. These
houeholds, however, are less likely than the increased number of low income
households who are excluded to need the assistance provided by
artificially low interest rates.

5.3. Deregulation: the optimistic outlook.

The optimistic outlook is that situation where, with deregulation, the
current effective cost of finance does not change and there is an increase
in the total supply of funds available for housing finance. This
scenario is closer to that envisaged by the Committee than that discussed
in the previous section. However, as was recognised in the Report (37.45),
even if the average effective cost of finance does not change, there will
still be changes in the effective rates of interest for different
borrowers. Those who predominantly borrow from regulated institutions
(in section 5.1 it was argued that these are all borrowers who obtain first
mortgage finance from regulated institutions) will face an increase in their
effective rate; those who predominantly borrow from unregulated institutions
(that is, all those who obtain first mortgage finance from unregulated
institutions) will benefit from a reduction in the effective rate of interest

they pay for their total loan package. As with the pessimistic outlook, those lower income households currently obtaining finance from regulated institutions will thus be faced with an increase in interest rates which, although smaller than that which would occur in the pessimistic case, would still have the effect of creating difficulties for borrowers already at their maximum repayment capacity. However, in this optimistic case, given that there is an increase in the supply of funds along with the increased interest rates, there will be more incentive for institutions to introduce flexible mortgage schemes in order to protect these existing borrowers and, possibly, to extend access to a wider range of households. As long as households currently obtaining finance have a limited potential for expanding their repayment capacity, alternative methods of coping with the increased repayment burden will have to be sought if the additional funds available are to be loaned out.

One potential difficulty, even with increased funds being available, is that there is, of course, no guarantee that the introduction of more flexible mortgage instruments will actually protect existing marginal borrowers or extend access to lower income groups; it may simply increase the demand from intramarginal households who can also benefit from rescheduled repayments and take out larger loans. To the extent that lower income households do gain increased access through the introduction of more flexible mortgage instruments, those who benefit will be those with the greatest perceived potential rather than current earning capacity. As before, the introduction of any government susbsidy schemes to protect borrowers from increased interest rates is likely to reduce the lending institutions' incentive to innovate.

Finally, some of the increased supply of funds could be absorbed by the increase in demand from those who benefit from a reduction in their overall cost of finance. In other words, given this 'optimistic' scenario deregulation could simply result in a redistribution of funds from those

currently borrowing (first mortgage finance) from regulated institutions
to those currently borrowing (first mortgage finance) from unregulated
institutions. To the extent that this latter group is more likely to
have a higher proportion of higher income earners, such a redistribution
would be from lower income households to higher income households.

5.4 Conclusions regarding distributional effects

In conclusion, it is not at all obvious that the distribution of available
housing finance would be any more equitable under deregulation than it
has been under existing regulations. Existing regulations have been
directed towards the supply and cost of housing finance rather than
towards the distribution of this finance. Its distribution has been
effectively left to the market and the non-price rationing criteria
introduced by necessity to ration an inadequate supply of finance at a
regulated rate of interest have been as effective in preventing lower
income households from gaining access to this housing finance as price
rationing would be. With deregulation, marginal borrowers may have
slightly different income/wealth characteristics, with current income
being traded off against expected future income or against increased
initial equity, but there is no guarantee that an increased number of
lower income households will obtain access to housing finance. Any
deregulation which reduces the supply of housing finance, such as removal
of the 100 per cent rule, would almost certainly guarantee that fewer low
income households obtained access to housing finance.

In general, low income households cannot compete with households with a
greater saving capacity and a greater repayment capacity for a limited
supply of housing finance or for high cost finance. If such households
are to be assisted into home-ownership, then policies or regulations which

are specifically concerned with the distribution of finance rather than general regulations relating to its cost and availability are required. Such policies can either be introduced through the budget (for example, by increasing rather than cutting back funds allocated under the Home Purchase Assistance scheme (see Yates (1981) for a detailed description of the operation of this scheme in NSW)) or by changing the nature of the existing regulations on financial intermediaries (for example, by requiring all financial intermediaries to lend a given proportion of funds to low income households at subsidised interest rates). There appears to be no case for maintaining existing interest rate regulation. Deregulation of interest rates should limit the extent to which the supply of housing finance is reduced and would remove a subsidy which disproportionately goes to those who do not need it. Portfolio regulation, however, as it now stands,[22.] does protect the supply of funds for housing finance and any further deregulation of these constraints could reduce this supply.

6 Conclusions

This paper has dealt exclusively with the distributional implications of implementing the recommendations of the Campbell Report in relation to the question of access to housing finance and has concentrated on the two major recommendations of chapter 37 of the Report. It has not dealt with the broader question of the distribution of the benefits and costs of regulation and deregulation. This question, in relation to the impact of regulation on the household sector, was covered in Yates (1981). It has also not considered the implications of deregulation in relation to efficiency and stability since these issues are to be covered in the Albon and Piggott (1981b) paper. Remaining issues relating to other recommendations or conclusions of the Report have been omitted because of limitations imposed on length.

The problems of providing access to housing finance for lower income households have become a politically sensitive issue in the current climate of high and rising interest rates and considerable energy has been expended, both at State and Federal level, on devising policies to be directed towards first and low income home buyers. A continuing emphasis on home-ownership policies as a solution to the housing difficulties faced by low income groups, however, may be self-defeating if equity is the underlying objective of such policies. Home ownership requires an ability and a commitment to save; as such it may not be the appropriate tenure form for many households and, in particular, many low income households. This argument is developed more fully in Yates (1982). Whilst the existing tax system taxes neither wealth, capital gains nor imputed income, home owners are already highly subsidised. Introduction of further subsidies to promote access to home ownership adds to the advantages of this particular tenure form. If home ownership is an

inappropriate tenure form for low income households, then such households
are effectively denied access to these housing subsidies.   If this is
so, there is some doubt that continuing to subsidise home ownership as
a tenure form to the exclusion of other tenure forms more appropriate
for low income households (such a private renting, which attracts no
subsidies, public housing, which has been severely cut back in recent
years, or any of the great variety of co-operative forms of ownership,
many of which have not even been tried in Australia) is the most effective
way of ensuring that low income households have access to adequate
housing.

FOOTNOTES

1. See Kane (1980). The deregulation referred to is the U.S. Depository Institutions Deregulation and Monetary Control Act of 1980.

2. This assumption is consistent with that taken in the Report where it is argued (footnote 18, p 642) that "deregulation will not generally affect the 'demand curve' for housing finance: it will only alter the shape and slope of the 'supply curve'." No explicit consideration is given in the Report to the possibility that the demand curve for housing finance might shift as a result of deregulation.

3. The effect of this redistribution will, more accurately, depend on the marginal portfolio allocation ratios rather than the stock ratios. Since the savings banks prescribed asset ratios have been falling over time (and consequently the proportion of funds allocated to housing has been rising) and since building societies have been holding an increasing proportion of their funds in liquid assets (and, consequently, a decreasing proportion in housing) the text may overstate the current importance of this point. I am indebted to Tony Morgan for pointing this out. The principle, however, remains. Any redistribution of a given supply of funds from an institution lending a higher proportion of its funds for housing to one lending a lower proportion must decrease the total supply of funds available for housing (and vice versa).

4. The definition of "adequate" in this context is assumed to be a political rather than an economic decision.

5. This simplification means that the model can only focus on the interdependencies between the two sectors and must ignore any within sector variation (such as discussed in section 2.1). It is equivalent to assuming that the interest rate differentials between intermediaries within the regulated sector remain unchanged; similarly for those within the unregulated sector.

6.   See Tucillo et al (1981) for such an argument.   Penner and Silber (1973)
quote Tobin, J. "An Essay on Principles of Debt Management" in
Fiscal and Debt Management Policies: Commission on Money and Credit,
Prentice-Hall, 1963 for a discussion of the determinants of substitutability
between securities and the definition of perfect substitutes.

7.   For late 1981, using 1979/80 weights, Albon and Piggott (1982a)
estimated this effective cost of housing finance to be 13.6 per cent,
approximately one percentage point above the current savings bank rate
of 12.5 per cent and one percentage point below the predominant building
society rate of 14.5 per cent.   They do point out that their estimate
of 13.6 per cent ignores non-institutional loans such as solicitors' or
mortgage brokers' funds and family finance but claim that incorporating
the Campbell Report's estimate of $5 billion for the former of these
two sources still yields a weighted average of less than 14 per cent.
There could be some argument as to whether the 8 per cent of loans
provided for defence service homes and by government housing commissions
at concessional rates of interest should be included in these estimates
since these institutions do not rely on the market for their funds.
Excluding them increases the estimated weighted average from 13.6 per
cent to 13.9 per cent.

8.   In this case the inflow of funds into regulated institutions must
either come from deposit taking intermediaries not currently providing
housing finance (as would be the case if funds came from the cash
management trusts) or from an increase in total saving in response to
the increase in regulated interest rates or it must represent an
insignificant outflow of funds from unregulated intermediaries providing
housing finance.   There could be some doubt as to what rate of interest
is the best measure of r_0, the current unregulated rate charged for
housing finance.   Albon and Piggott (1982a) imply that the rate
prevailing in the uncontrolled segment of the market (which is dominated
by finance companies) would be a reasonable estimate and claim that

17-18 per cent is a conservative estimate of this rate in December 1981. This finance company rate, however, is generally a fixed rate for short term second mortgage finance and is not necessarily a good proxy for variable rate, longer term first mortgage finance. The rate currently charged by permanent building societies in those states where there is no effective interest rate regulation on these societies might be a better proxy. It was reported in the Australian Financial Review on February 15, 1982, for example, that early in 1982 Victorian building societies appeared to be "flush with funds" and to have sufficient funds to meet the demand for housing finance. This suggests that their lending rates, which were then 14.5 to 15 per cent, may have been close to what would have been a market clearing rate.

9.   The Australian Financial Review, March 19, 1982 gives prescribed asset ratios for December 1981 as follows: Commonwealth Savings Bank, 51.8; Bank of New South Wales, 44.5; A.N.Z., 47.9; National Bank, 47.9; C.B.C., 40.7 and C.B.A., 46.8.

10.   This was part of the housing package announced by the Treasurer on March 18, 1982. Also included in this package was a one per cent rise in the savings bank maximum lending rate for housing to 13.5 per cent, a five per cent across the board tax rebate for new and existing home buyers and changes in regulations related to deposits. In return, the banks agree to increase their lending for housing by $400 million over the next 12 months. This represents an increase of approximately 15 per cent of total savings bank lending in 1980/81 and is to be met either by the inflow of funds resulting from more competitive rates or by allocating a higher proportion of new funds to housing.

11.   On the other hand, since incomplete deregulation of interest rates in the March housing package still leaves bank rates uncompetitive with the unregulated sector, much of the increased bank lending may simply result from a redistribution of lending within the regulated sector

(that is, between banks and building societies) without increasing the total supply of housing finance from regulated institutions.

12.   For the U.S. see, for example, Tucillo (1980).   Similar arguments can be found in von Furstenberg (1977) and Kaplan (1977).   For the U.K. see, for example, Atkinson and King (1980).

13.   At the upper end of the income scale, the Victorian survey shows that 60.7 per cent of borrowers from Victorian savings banks had gross incomes in excess of $17000 per annum and approximately 45 per cent had gross incomes in excess of $20000 per annum.   However, at the lower end of the income scale, this survey shows 19.1 per cent of all borrowers had incomes less than average weekly earnings; the data in Table 37.2 of the AFSI Report puts this as low as 12.8 per cent for Victoria.   A considerable part of the explanation of the difference could lie in the 6 months difference in the timing of the relevant surveys.   This could have resulted in an increase of anything upto 10 per cent in nominal incomes in the Victorian survey vis a vis those reported in Yates (1981).   This is a sufficient increase to explain the discrepancies in the figures. A further potential factor contributing to the difference is that, in the questionnaire used for the Victorian survey, applicants were explicitly instructed to record income from pensions and endowments.   In the data collected for the AFSI Report, the inclusion of income from such sources was left to the discretion of the applicant and/or bank manager.

The figures on the income distribution for the population as a whole are based on the 1978/79 ABS Income Survey data scaled up by the increase in average weekly earnings to bring them into line with the 1979/80 loan data. Those on the income distribution for potential home buyers are based on scaling up the 1975/76 Household Expenditure Survey figures.   The proportions of first home buyers obtaining loans in each income category are almost identical to the figures for all borrowers quoted in the Report.   Further details are given in Yates (1981).

14. Figures on the Home Savings Grant scheme, supplied by the Department of Housing and Construction in January 1982, also indicate that 20-25 per cent of first home buyers rely on supplementary borrowing.

15. For first home buyers, supplementary financing is very slightly more important, varying from 3.5 per cent of the total loan package (for the 'lower' income groups) to 5.1 per cent (for the 'lower middle' income groups).

16. The fact that, for the Australian Bankers' Association data, the average repayment to applicant's income for those in the lowest income category was 56 per cent, but the repayment to household income ratio for these same applicants was only 28 per cent, "emphasizes the importance of supplementary family income to the capacity to repay" (ABA, 1982, p 29). The potential weakness of relying on applicant's income alone for analysis is reflected by the fact that average "other family income" used to supplement borrower's income was equal to 100 per cent of applicant's income in the less than $10000 income category (compared with only 24 per cent of applicant's income on average and 10 per cent in the over $25000 income category). This explains why the repayment capacity of applicants in the lowest income category in the survey was, on average, doubled once household income was taken into account.

17. This simply indicates that once a household has dual income status its income is generally sufficient to lift it above the lower income categories recorded in Tables 5.1 and 5.2.

18. It was reported in the Sydney Morning Herald, February 16, 1982 that only 550 loans had been made in the first seven months of the scheme (compared with a projected total of 8000 over 3 years). The inability of households to pay for or obtain first mortgage finance was cited as a major cause of difficulty. There are a number of reasons why many single income households

may be unable to increase their household income in those cases where there is a second potential income earner in the household. One reason is that there may be no work available; a second is that many suchfamilies have young children and there may be no child care facilities available; a third is that even when facilities are available, there cost, plus additional costs incurred by joining the work force, may be such that the effective income earning capacity of a second income earner is close to zero.

19.   Tables 4.5 to 4.8 in Yates (1981) give data on loans provided by NSW terminating building societies under the Home Purchase Assistance Scheme. These show that 61 per cent of borrowers are single income households. The lower rate of interest charged (viz. 5 per cent) to households with incomes less than $180 per week enables them to service first mortgage loans beyond the maximum $25000 limit. In addition, Table 4.9 shows that 44 per cent of these borrowers with annual household incomes less than $10000 obtained supplementary finance (with 65 per cent reporting own savings and relatives as the source). This compares with 48 per cent of all borrowers obtaining supplementary finance but only 54 per cent of all borrowers reporting own savings or relatives as the source of this finance.

20.   On the data presented, supplementary borrowing from unregulated sources (including non-institutional sources such as solicitors' funds) represents no more than 3 per cent of total loans for borrowers in any income group with first mortgages from regulated institutions. In other words, the ratio of loans approved from regulated institutions to total loans was at least 97 per cent. For 1980/81, on the basis of loans approved for owner-occupation (ABS Cat. No. 5609.0), the ratio of loans from regulated institutions (banks, building societies and government) to total loans approved (including, in addition, finance companies, credit unions and insurance companies) was 88.2 per cent. For 1980, on the basis of balances outstanding to these same institutions it was 85.7 per cent (AFSI Report, 1981, Table 37.1).

21. The expression "the 25 per cent rule" is used here to apply to whatever income rationing criterion has been imposed in specific instances. Since many of the problems of access are due to the front end loading problem associated with the conventional credit foncier mortgage system, the introduction of mortgage instruments which reduce the burden of mortgage repayments in the early years of a loan will help improve accessibility for those households excluded by increased interest rates.

22. See section 3 and footnote 10 for a description of current portfolio regulations.

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