
Economic Indicators of Household Financial Health, by State

This note looks at the relationship between economic indicators and household financial health, by state. The idea is to identify economic indicators which can be used as early warning indicators of emerging financial problems in the household sector in each state.

The key findings are:

- There are significant differences in the incidence of household financial stress between the states.
- Rates of personal bankruptcy have changed markedly through time. Rates of personal bankruptcy are currently quite high in NSW and Victoria relative to the experience of the past 10 years. In contrast, bankruptcies in WA and Tasmania are close to recent historic lows (as at end March 2006, the latest quarter for which bankruptcies per head of population can be calculated).
- NSW is the only state in which personal bankruptcies per capita are currently rising.
- Changes in the rate of bankruptcy through time are most closely associated with changes in labour market conditions. In all states the periods of rising bankruptcy rates have aligned with periods of slowing employment growth and/or rising unemployment.
- Other economic variables such as consumer confidence or retail spending are associated much less closely or not at all with changes in personal bankruptcy rates.
- Demand for housing credit appears to be loosely related positively to personal bankruptcies – that is, bankruptcies rise when finance approvals for owner occupation are rising.

The conclusion is that **labour market conditions provide the best early warning indicator of emerging financial stress in households, and provide the best guide to differences in household financial stress between states.**

Of the states, **NSW is the only one currently experiencing an increase in household financial stress** (up to the March quarter 2006). This is before the May and August interest rate rises have had an impact. The performance of the labour market in this state needs to be closely monitored.

Why should we worry about household financial health at this time?

Australia has now enjoyed 15 years of uninterrupted economic expansion. Economic activity is being driven by strong global demand for heavy resources. Record high commodity prices are literally raining money from heaven on Australia. The unemployment rate has fallen from close to 11% in 1993 to now be at a 30 year low of 4.8% to 4.9%. Incomes growth is strong. Household spending is robust. In short, times are good, and household economic health is generally strong. This is not the type of environment in which household credit problems would be expected to emerge.

On the other hand, total household debt is high – about 165% of total household disposable income. Interest rates have risen 1.75% in 4 years. And the house price boom cooled nationally from the end of 2003.

These disparate economic drivers are creating large differences in the economic performance of the states and territories. The resource rich WA, NT and Queensland are recording much higher rates of economic activity and employment growth than the south eastern seaboard regions of NSW, Victoria, SA, and the ACT. Tasmania is the exception in the south east, continuing to record solid rates of growth. Reflecting this, there are big differences in the performance of housing markets, with Perth and Darwin continuing to record large price gains, prices actually falling in Sydney (down 8% in 2 years), while prices in other capital cities are subdued but not falling.

This suggests that, while the national picture looks generally rosy, there are likely to be differences between the states in the financial health of households.

Measuring household financial health

The most difficult part of this exercise was finding a suitable indicator of household financial health. The indicator needed to have a run of data sufficiently long to encompass the early 1990s recession, the most significant economic and credit event of the past 2 decades. It also needed to be available by state. The only data series which met these criteria was the number of new personal bankruptcies

declared per quarter, sourced from the Insolvency and Trustee Service Australia. This was adjusted for population changes to derive a per capita series for each state. Suitable data were not available for ACT and NT.

There are a number of potential issues with this data set. The first is that the data are "raw" and volatile - this was resolved by expressing the series as rolling 4 quarter averages.

Table 1

	Personal Bankruptcies Per capita * 100,000 4 quarter average					
	NSW	VIC	QLD	SA	WA	TAS
Jun-1987	7.89	7.65	16.30	24.29	15.30	22.15
Jun-1988	8.98	9.58	16.41	26.60	15.41	27.60
Jun-1989	8.70	8.70	12.44	23.38	12.02	18.89
Jun-1990	9.26	10.33	13.72	23.03	16.86	23.80
Jun-1991	12.68	18.04	20.77	28.57	28.21	25.71
Jun-1992	18.20	22.90	24.04	34.86	34.89	33.95
Jun-1993	17.48	20.17	20.11	30.88	25.94	31.22
Jun-1994	16.45	19.06	20.34	29.74	20.57	34.68
Jun-1995	15.61	17.84	20.95	30.47	21.96	36.15
Jun-1996	18.72	19.15	28.96	38.43	25.00	44.84
Jun-1997	22.43	22.73	39.67	43.64	31.35	59.02
Jun-1998	26.21	26.96	45.72	40.36	30.88	55.30
Jun-1999	28.19	28.28	49.92	43.30	33.59	51.86
Jun-2000	24.24	24.86	42.50	41.91	29.42	44.34
Jun-2001	23.76	24.45	44.92	40.33	31.19	50.82
Jun-2002	24.43	24.08	43.82	40.59	29.66	50.68
Jun-2003	23.50	22.59	38.12	35.69	28.04	51.75
Jun-2004	22.21	21.35	30.95	34.66	24.70	36.24
Jun-2005	23.06	22.35	29.60	33.74	19.22	29.06
Sep-2005	24.22	22.80	30.76	32.53	18.29	28.45
Dec-2005	24.49	21.84	29.51	31.04	17.38	27.92
Mar 2006	25.63	22.33	28.37	31.35	16.98	28.43

Source: Insolvency and Trustee Service Australia, Economics@ANZ

The second and potentially more serious issue is that there have been numerous changes to bankruptcy legislation and regulations over the past two decades which may have affected the propensity of individuals to declare bankruptcy. For example, the Bankruptcy Amendment Bill 1991 made amendments to the *Bankruptcy Act 1966* to establish a more efficient and effective means of securing contributions from the income of a bankrupt, and also to enhance the opportunities of persons with levels of debt they have no opportunity of repaying to begin the process of financial rehabilitation at an early date through a new administrative system of early discharge from bankruptcy. Further, the Bankruptcy Amendment Bill 1996 provided for 15 categories of amendments, including the establishment of a "One Stop Service" such that ITSA could process the majority of bankruptcy applications without recourse to the courts, and the creation of a new form of insolvency

administration known as debt agreements for low income debtors as an alternative to technical bankruptcy.

It is not possible to assess the net impact of these and other changes on the propensity of individuals to enter bankruptcy. What we have done is to look for economic factors which explain the observed cycles in the bankruptcy data as they stand. In analysing each factor, the absence of a relationship does not necessarily imply the factor is not important to individual bankruptcies. We do assume however that consistent evidence of a relationship is an indication that the factor has played a role in explaining the cycles in bankruptcies over time.

Indicators by State

Background

Households are most likely to experience financial stress when their economic health deteriorates. This can occur for two reasons:

- Where they suffer a significant decline in household income, most usually as a result of a partial or total loss of employment; and
- Where they incur a significant increase in the cost of servicing their loan obligations, either because of increased levels of debt or increased interest rates.

A number of economic variables were considered which can impact on the "financial health" of the household sector in each state. The criteria for selecting the variables were that the data should be timely; be available by state; and provide a directional guide to household financial health.

The variables which were initially evaluated were:

- The number of employed people (a rise in employment should improve economic health; a fall should decrease it);
- The number of unemployed people (a rise in unemployment should decrease economic health and a fall should increase it);
- Retail sales (a slowing in retail sales may be a sign that economic health is deteriorating, for example because household income is declining or because increased costs for particular items such as petrol and interest rates are eroding income available for spending on other items).
- Consumer confidence (falling consumer confidence should be associated with declining household economic health).
- Finance approvals for owner occupation (it was expected that rising finance approvals would be an indicator of economic health and low financial stress, that is, there would be an inverse relationship between finance approvals and financial stress. However, that turned out not to be the case.)

- House prices (it was expected rising house prices would be associated with improved financial health).

In the following analysis all variables are expressed as trend percentage changes either monthly or quarterly, except for house prices which are measured as the annual rate of change, and consumer confidence which is expressed as an index level. Some variables were dropped after testing for the two largest states as it became clear there was no relationship to household financial stress.

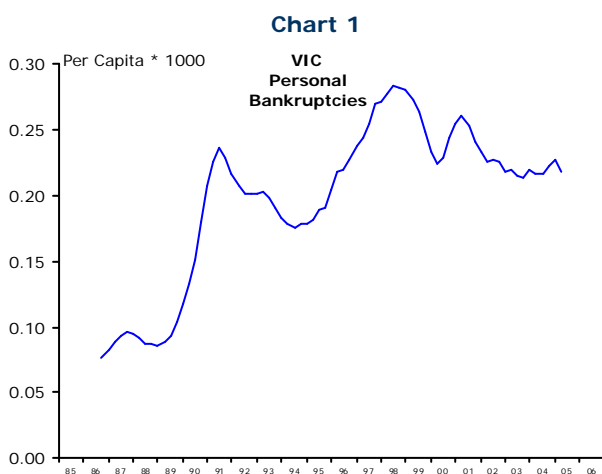
A number of other variables were considered but rejected on various grounds. For example, interest rates would be an obvious driver of household financial health at a national level, but they do not explain differences between states. Data on economic growth by state are only available quarterly with a considerable lag, and even then the data are only partial.

Victoria

Victoria provides a useful first test case for financial health because it is one of the states which is currently underperforming the national average and it is also a state which was hit hard in the early 1990s recession.

Chart 1 shows personal bankruptcies per capita for Victoria. Bankruptcies more than doubled through the 1990s, despite the commencement of what has turned out to be an unprecedented period of prosperity since the early 1990s recession. Bankruptcies have eased slightly through the 2000s. Within this 20 year period there are three phases when personal bankruptcies rose sharply:

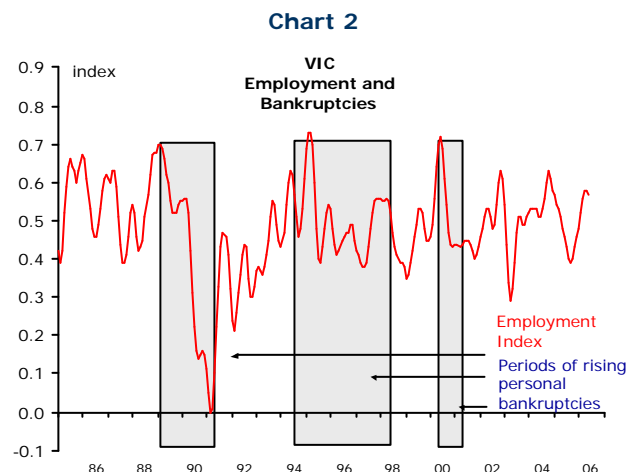
- March 1989 to September 1991;
- September 1994 to September 1998; and
- June 2000 to June 2001.



Sources: Insolvency and Trustee Service Australia, ANZ Economics

Charts 2 to 8 compare these periods of rising bankruptcies against the economic indicators. They show:

- There is a strong relationship between bankruptcies and the labour market. A fall in the rate of growth of employment (that is, a deceleration) is associated with rising bankruptcies (chart 2), as is an acceleration in the rate of growth of the number of unemployed (chart 3). The net impact of these two aspects of the labour market was aggregated into a composite measure of labour market performance comprising the change in the number of employed, and the inverse of the number of unemployed (chart 4); this also performed well as an indicator of bankruptcies.
- There is a weaker and less consistent relationship between bankruptcies and consumer confidence (chart 5).
- There is little discernable relationship between bankruptcies and retail sales (chart 6).
- One surprising result is that there is a positive relationship between bankruptcies and growth in owner occupier housing finance loan approvals (chart 7) – that is, bankruptcies tend to rise when finance approvals are increasing (we had expected the opposite to be true – that a fall in demand for housing credit, say in response to higher interest rates, would be associated with increased financial stress).
- There appears to be no consistent relationship between bankruptcies and house prices (chart 8), other than the association between decelerating house prices and rising bankruptcies in the early 1990s, both symptoms of a period of general recession in Victoria.



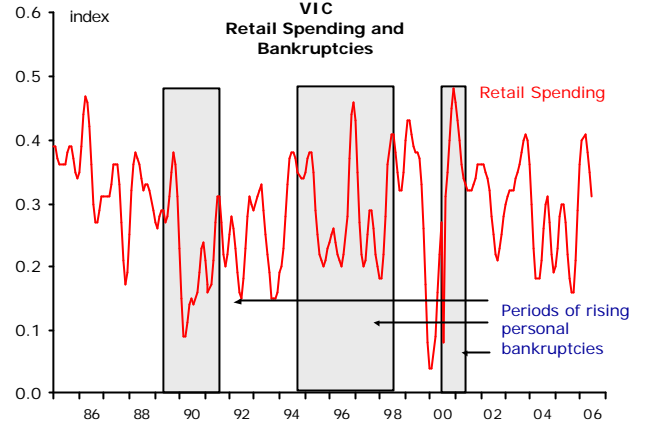
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 3



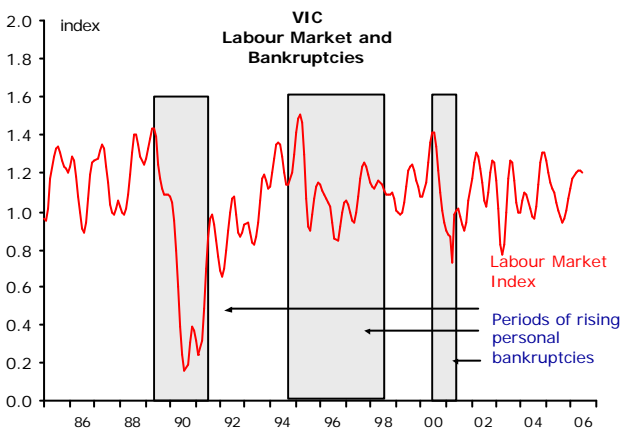
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 6



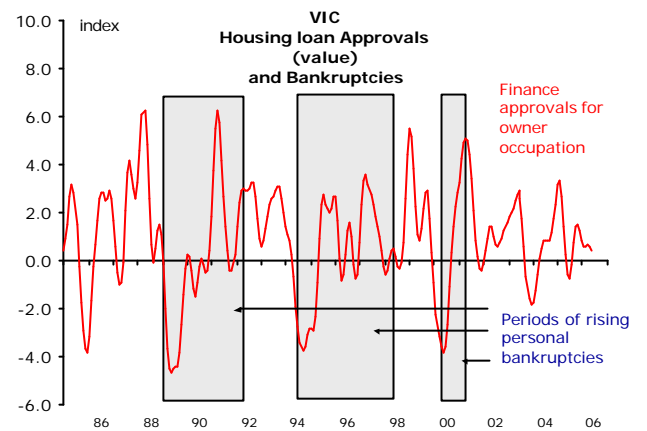
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 4



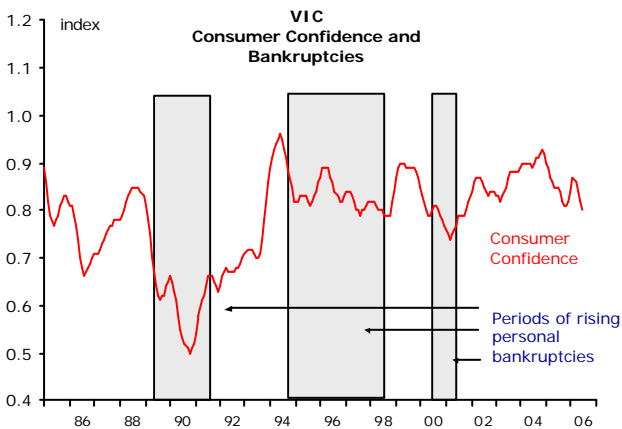
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 7



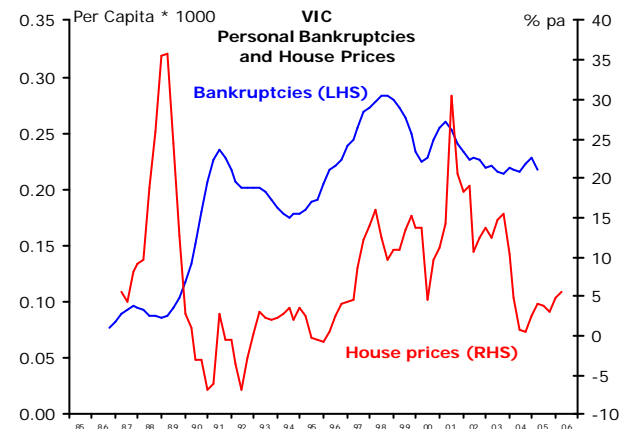
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 5



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 8



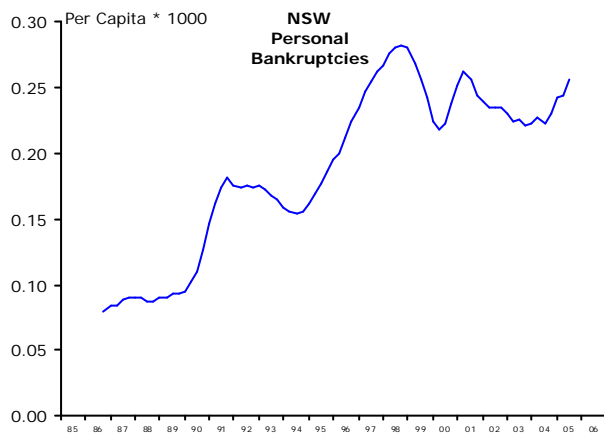
Sources: Insolvency and Trustee Service Australia, ANZ Economics, ABS

NSW

Chart 9 shows personal bankruptcies per capita for NSW. The story in NSW is similar to Victoria, with a sustained increase in bankruptcies through the 1990s, followed by some moderation through the 2000s. There are four periods of rising bankruptcies for NSW:

- December 1988 to December 1991;
- September 1994 to December 1998;
- June 1999 to June 2001; and
- September 2004 to March 2006.

Chart 9



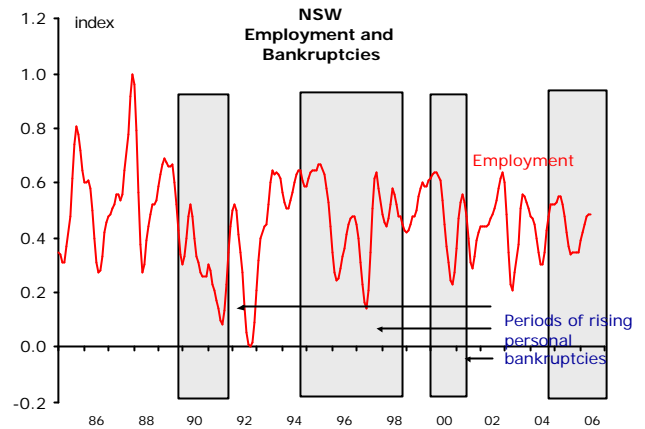
Sources: Insolvency and Trustee Service Australia, ANZ Economics

Charts 10 to 16 show the relationship between rising bankruptcies in NSW and the economic indicators. The findings are broadly similar to that for Victoria in that:

- Both falling growth in employment and rising unemployment are associated with a rise in bankruptcies (charts 10 to 12);
- The relationship between consumer confidence, retail spending, and bankruptcies is weak (charts 13 and 14);
- Bankruptcies tend to be associated with rising rather than falling finance loan approvals for owner occupied housing (chart 15).
- There appears to be no relationship between house prices and bankruptcies other than in the early 1990s (chart 16).

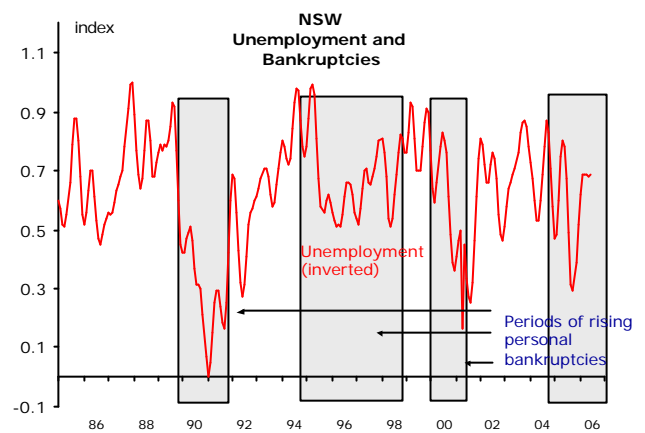
One unique feature of the NSW experience is the rise in bankruptcies since September 2004, which is associated with a weakening labour market, itself the product of a slowing in economic growth (the latest National Accounts data show that NSW is in technical recession, with consecutive falls in gross state product in the March and June quarters 2006).

Chart 10



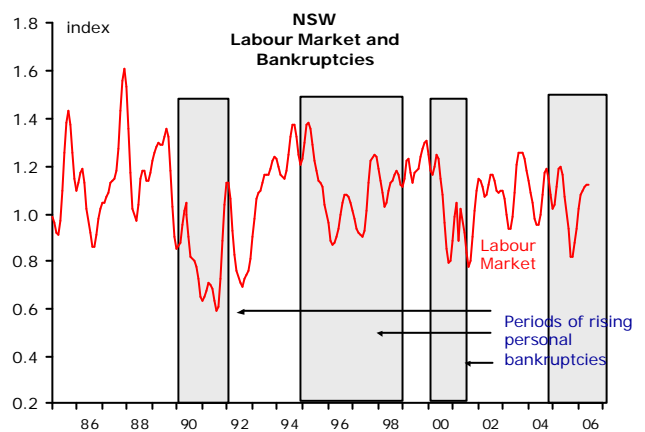
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 11



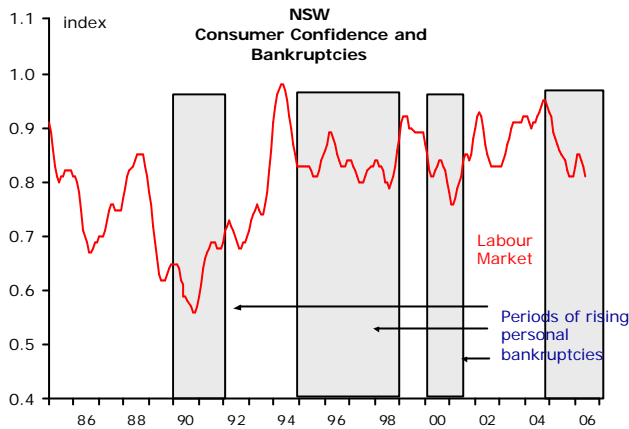
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 12



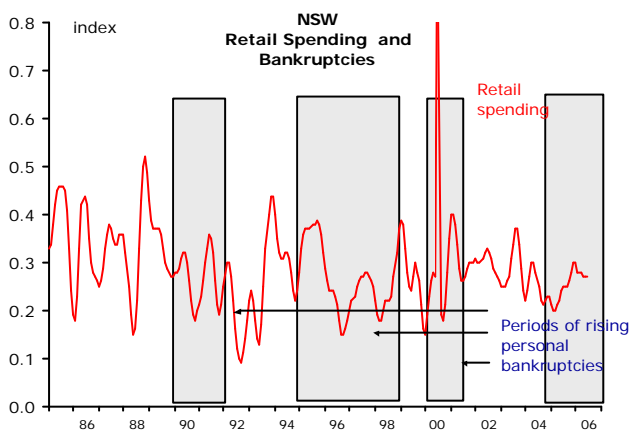
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 13



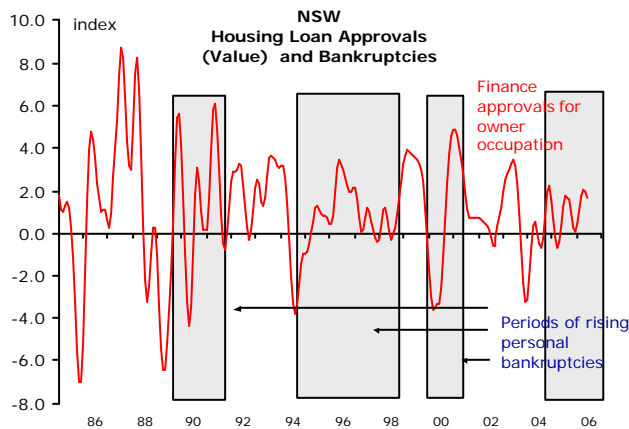
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 14



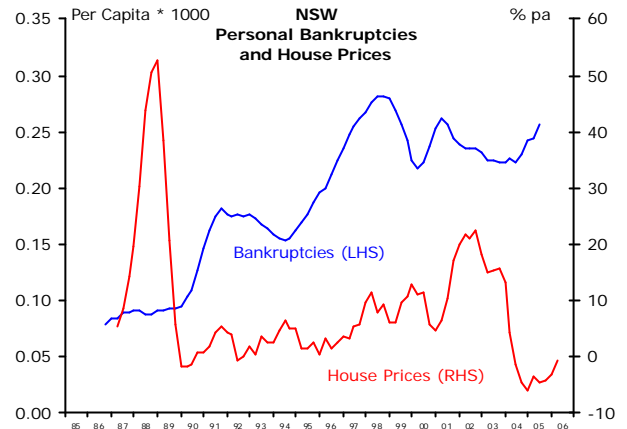
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 15



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 16



Sources: Insolvency and Trustee Service Australia, ANZ Economics, ABS

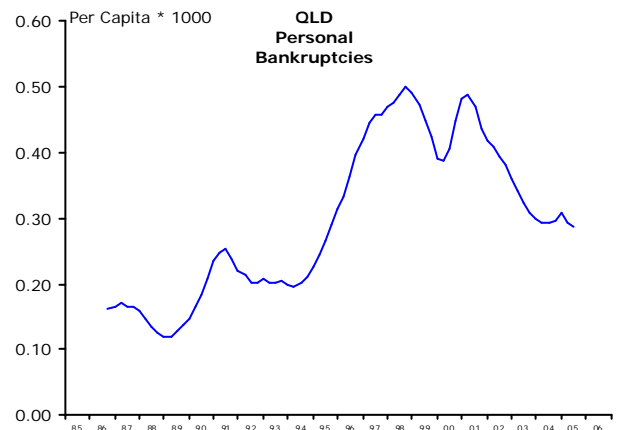
Queensland

Chart 17 shows that Queensland's personal bankruptcies also rose through the 1990s, but have shown a sharper trend decline through the 2000s than either Victoria or NSW. The three periods in which bankruptcies have risen in Queensland are:

- March 1989 to September 1991;
- June 1994 to December 1998; and
- June 2000 to June 2001.

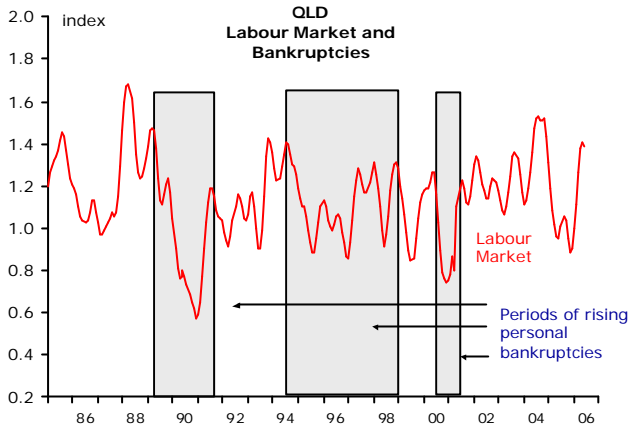
These periods align reasonably well with periods of labour market weakness in Queensland. There is some evidence of a positive relationship with housing finance approvals, although it is not consistent. There appears to be little relationship with house prices (charts 18 to 20).

Chart 17



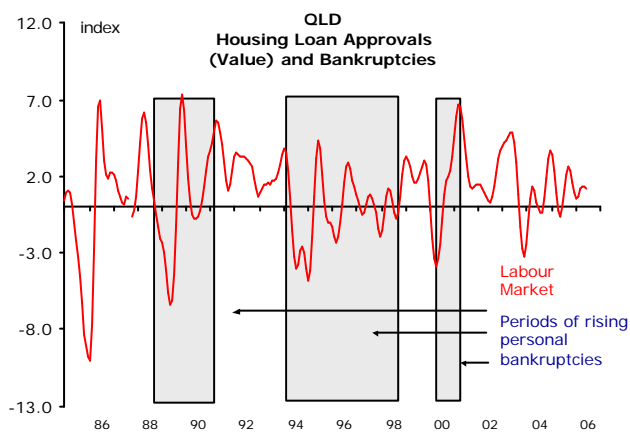
Sources: Insolvency and Trustee Service Australia, ANZ Economics

Chart 18



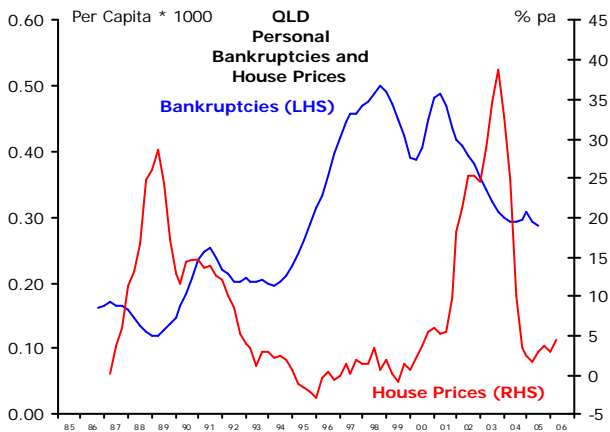
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 19



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 20



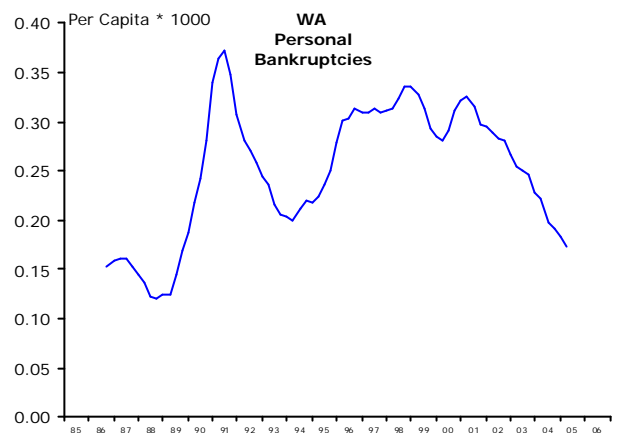
Sources: Insolvency and Trustee Service Australia, ANZ Economics, ABS

Western Australia

Western Australia has a different history of personal bankruptcies to the other states (chart 21). There was a sharp rise from late 1989 through to September 1991, which was the recent historical peak. There was a second though less marked episode from June 1994 to December 1998, with a short lived increase from June 2000 to June 2001. Subsequently, bankruptcies have fallen steadily to close to the lows of 1988.

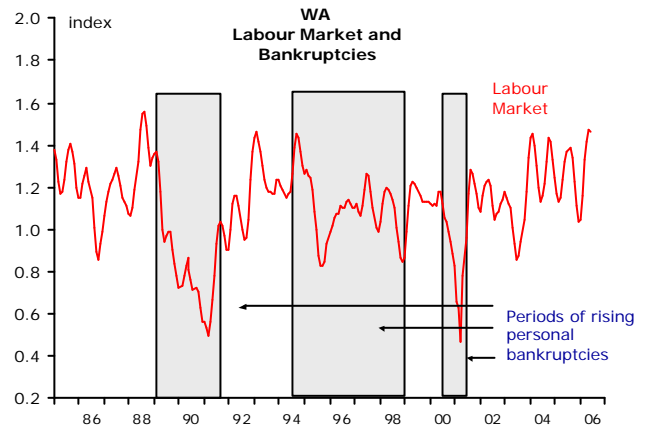
Chart 22 shows that the periods of rising bankruptcies in WA have been closely associated with periods of labour market weakness. And the sustained fall in bankruptcies from mid 2001 has been associated with WA's stronger than average labour market outcomes.

Chart 21



Sources: Insolvency and Trustee Service Australia, ANZ Economics

Chart 22



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

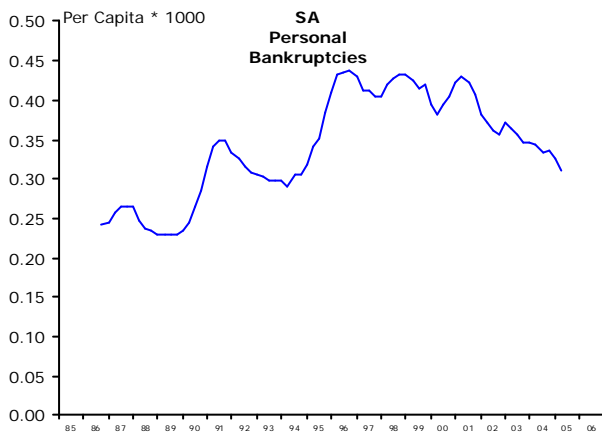
South Australia

South Australia's experience with personal bankruptcies is broadly similar to the other south eastern states (chart 23). There have been three phases of rising bankruptcies in SA:

- June 1989 to September 1991;
- June 1994 to December 1996; and
- June 2000 to June 2001.

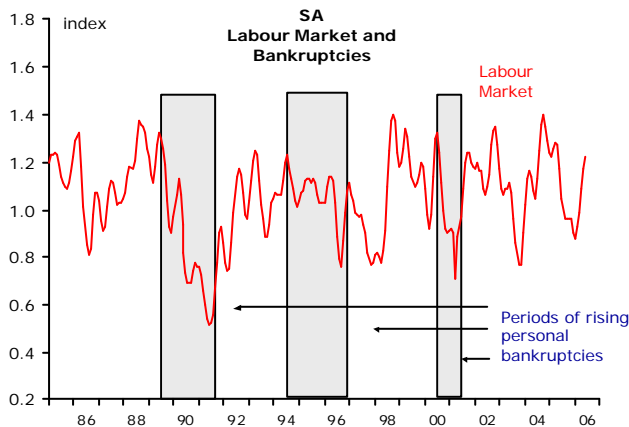
Chart 24 shows that these periods have all been associated with periods of weakness in the labour market, although there have also been periods of labour market weakness which were not associated with rising personal financial distress in SA.

Chart 23



Sources: Insolvency and Trustee Service Australia, ANZ Economics

Chart 24



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Tasmania

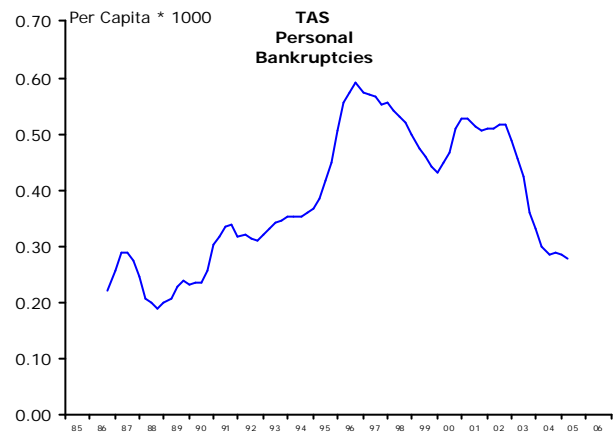
Tasmania has experienced two phases of rising personal bankruptcy in the past 20 years (chart 25):

- The first was an extended period running from December 1988 through to December 1996;
- The second was much briefer, from March 2000 to March 2001.

Subsequently bankruptcies have fallen quite sharply in Tasmania, to close to the lows of the mid 1980s.

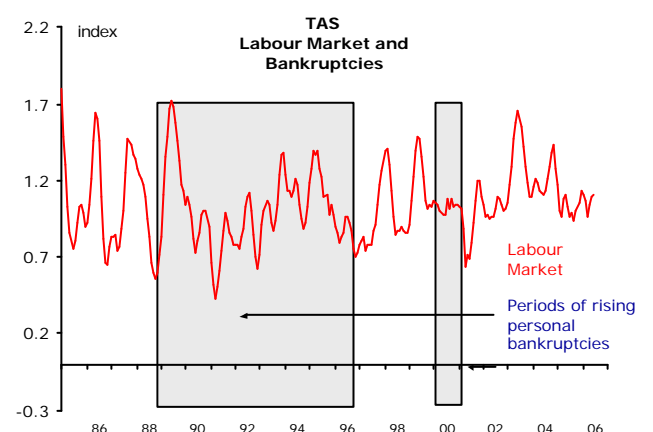
Charts 26 to 28 show that these periods of rising bankruptcies tend to be associated with periods of weaker employment growth rather than rising unemployment. However, the relationship is not as clear cut as for some other states and (as in SA) there are periods of weakness in employment growth which are not associated with rising personal bankruptcies.

Chart 25



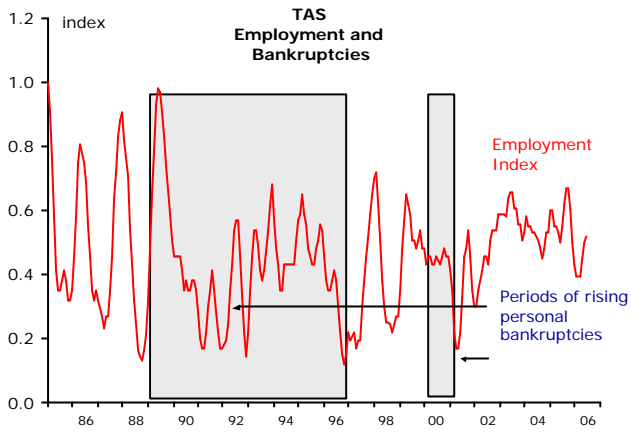
Sources: Insolvency and Trustee Service Australia, ANZ Economics

Chart 26



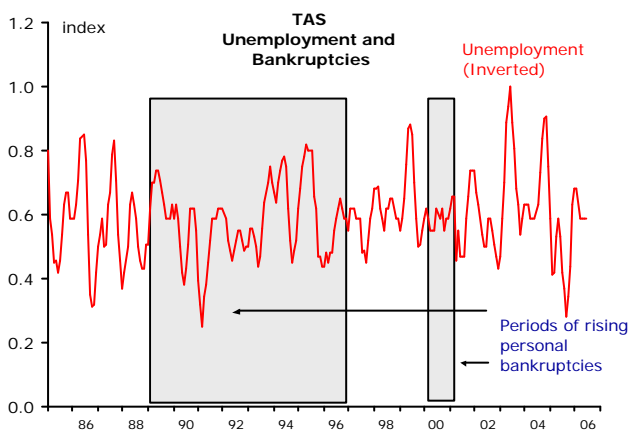
Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 27



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

Chart 28



Sources: Australian Bureau of Statistics, ITSA, ANZ Economics

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