

Elstree

**Bad debt cycles
and Australian
banks. Should
we be
concerned?**

Markets are worried

- **When the next bad debt cycle begins, Australian banks are in a structurally stronger position than the previous 2 bad debt cycles.**
- **Prime quality residential mortgages have never been the cause of Australian banking problems.**
- **Australian banks now have a better quality mortgage book and the proportion of higher risk property and commercial lending is at historic lows and**
- **There's a not unreasonable chance that the overall losses from the next bad debt cycle will be less than the GFC and far less than the 1990's experience.**

Australian banks share prices are down between ¼ and 1/3rd from peak levels, on expectations of regulator induced increased equity capital levels, lower growth and, most interestingly for us, fears of bad debts arising from an overvalued and bubbly housing market. APRA has undertaken 2 stress tests since the GFC, one deflationary (40% fall in house prices and a recession) and an inflationary scenario (interest rates and inflation rising). In the first test the CET1 ratio fell from the starting ratio of 8.9% to 5.8% in year 2 while in the inflationary scenario the capital low point was 6.3% in year 3. Given that bank capital levels have increased by around 0.5% since then and will continue to grow, these stress tests are big passes for hybrid owners with no regulatory conversion and a very low probability of being deemed “unviable”. However, like all stress tests, its ‘garbage in and garbage out’, so we thought it would be interesting to see what happened in the real world. Our points of reference are;

- Australia during the GFC and early 1990s recession and
 - US during the GFC, particularly in the areas where there was less of a bubble and particularly the effect on “prime” mortgages. We’ll explain the rationale later.
- This paper focuses specifically on the Australian experience.

Australia : the summary

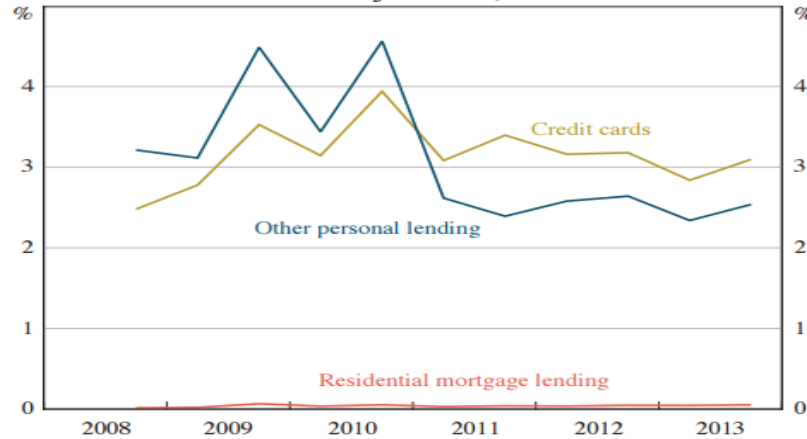
One of the overlooked results of doing a lot of analysis is that sometimes you change your mind. We used to worry about the banks’ housing exposures after experiencing the early 90s recession, but we’re now less certain. Even if we get a recession, it’s not going to be much worse than the GFC for the banks and probably even better than the outcome for the “good banks” during the 90’s event. The rationale is;

- Prime mortgage lending has been almost riskless in the past 2 events, and given the large price increases in the past 3 years and apparent de-risking of residential mortgage books since the GFC, it will take a very chunky fall in house prices to produce meaningful losses.
- Notwithstanding the stretched house valuations, a lowering of the cash rate quickly produces improved affordability which will put a floor on house price falls.
- The Banks business and commercial property loan books are much smaller and look less risky than previous events and
- Banks are profitable: Peak GFC loan losses were only between 20% and 30% of pre provision income (i.e) banks were enormously profitable even in a stress event.
- Share prices went down, but that’s due to the enormous agency problems with banks. Capital ratios were higher at the end of the period than the start and banks raised the capital at the bottom of the price cycle.

*Australia:
GFC: nothing
to show here*

The graphic shows the credit losses by the 3 majors during the GFC. Residential mortgages losses were meaningless, which is not surprising given that house prices only fell by 4% at a national level, GDP only fell for one quarter, and that mortgage insurance absorbed some of the losses.

Figure 12: Credit Losses by Portfolio
Consolidated data for three major banks, annual net write-off ratios

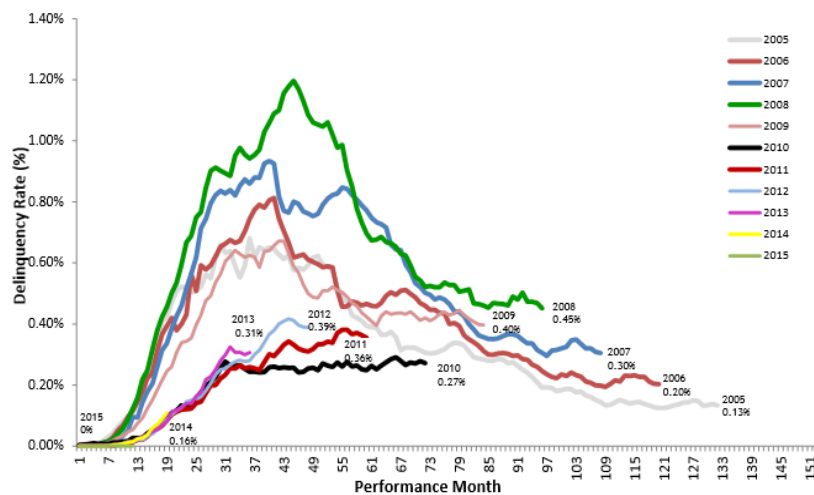


Pillar 3 reports

*Mortgage
insurers
during the
GFC*

The mortgage insurers are the canary in the coalmine as they generally are only used for loans with a LTV in excess of 80%. If anything goes wrong, their exposures will be the first affected. The chart below shows the percentage of Genworth Australia's book that is delinquent by the year of origination. The 2007 and 2008 years were the worst in recent history, but the company still produced profits of \$120m in the most affected years and we understand the company has never made a loss in its 50 year history. During the GFC, even non-prime mortgages didn't really default and when they did, losses were low.

Figure 9: Delinquency development by book year

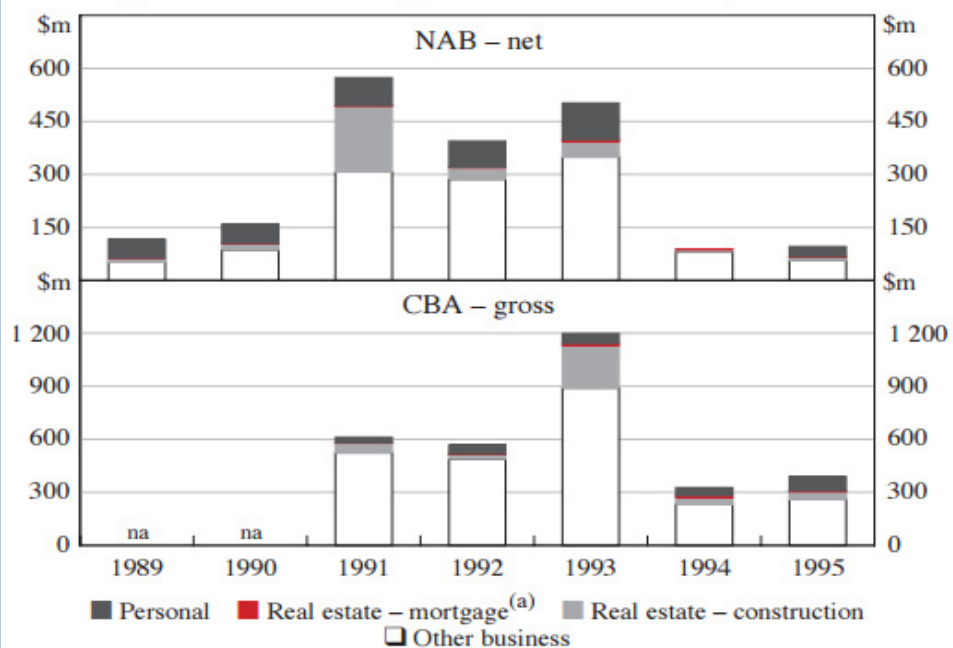


So Back to the 90s: but mortgages weren't the problem then either

The previous bank stress period was in the early 1990's when Westpac lost \$1.5b or c25% of total shareholder funds, famously fought off Kerry Packer while watching its share price fall 60% over 4 years. However, it was a bit of a surprise to us that, at a national level, losses from residential mortgages were again insignificant. There is a real paucity of data, but collation of data from various sources gives the following picture of negligible losses from residential mortgages.

- Westpac (the worst affected bank of the 90s recession) suffered losses of only 0.11% on their residential mortgage portfolio in 1992 (the year of peak losses).
- The RBA estimate that around 2% of lending to households was non-performing during the early 90s (which includes the more risky credit card, motor vehicle lending etc as well as mortgage lending).
- Westpac retail banking bad debts provisions in 1993 were \$193m, compared to group underlying profit of \$1543m and group assets of \$105 billion.
- As the RBA chart below shows the residential mortgage losses (in red) at CBA and NAB (which were the least affected banks) were 'rounding errors'.

Figure 5: Write-offs by Portfolio – Two Major Banks



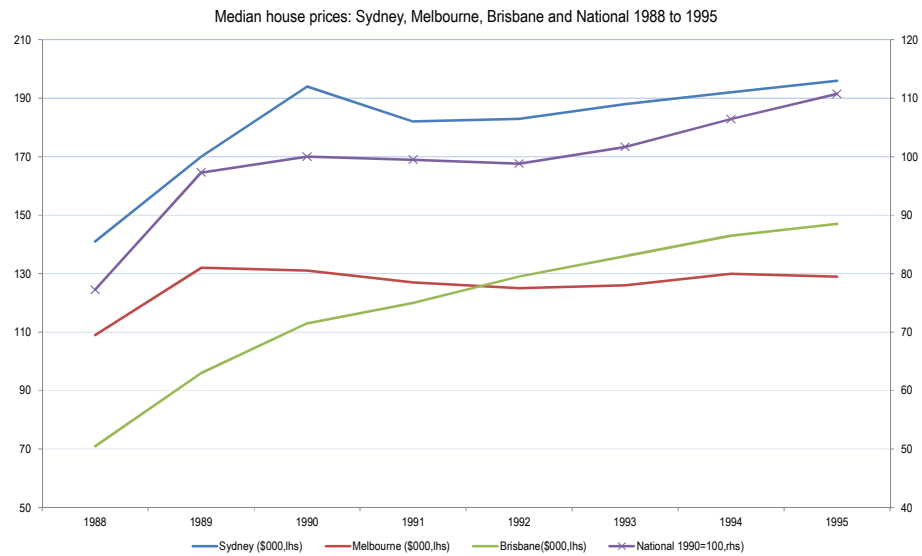
*Reasons for low losses
1) falls were short lived*

There were a number of reasons why losses were so low.

At a national level, house and unit prices really only fell for one year and even in individual regions, the largest price fall was for 2 years before stabilisation. The charts below show house and unit prices for the 3 largest markets and for Australia as a whole. We've shown nominal levels, but inflation adjusted levels aren't that different as inflation was below 2% by 1991 and stayed at that level for the next 3 years.

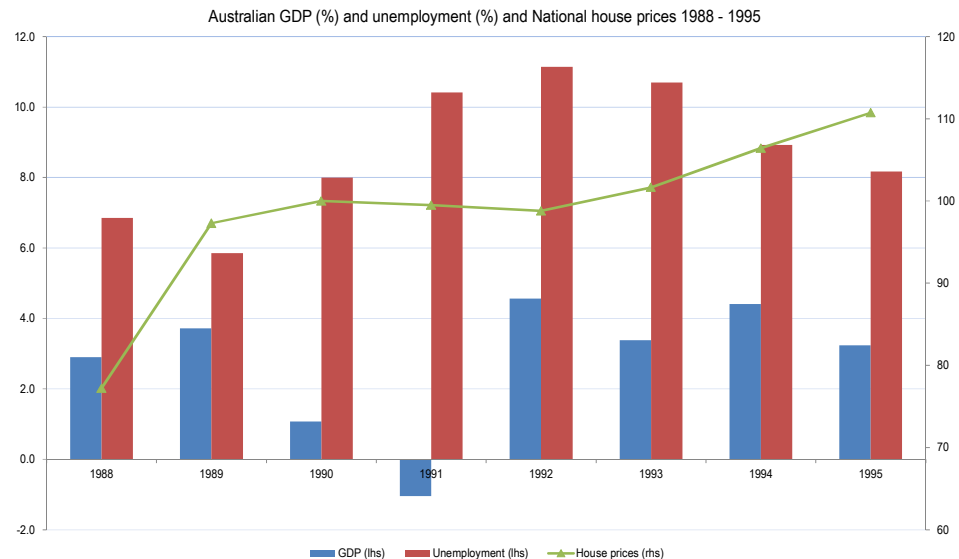
2) material price rises in the years before

3) economic conditions weren't severe enough, or did the stabiliser work?



As the chart shows there were material price rises in the 3 years before the early 91/92 recession. Even if house prices did fall in 1991 and 1992, any house that was first mortgaged before 1990 was showing capital gains (at a national level: clearly there were regions where there were greater losses).

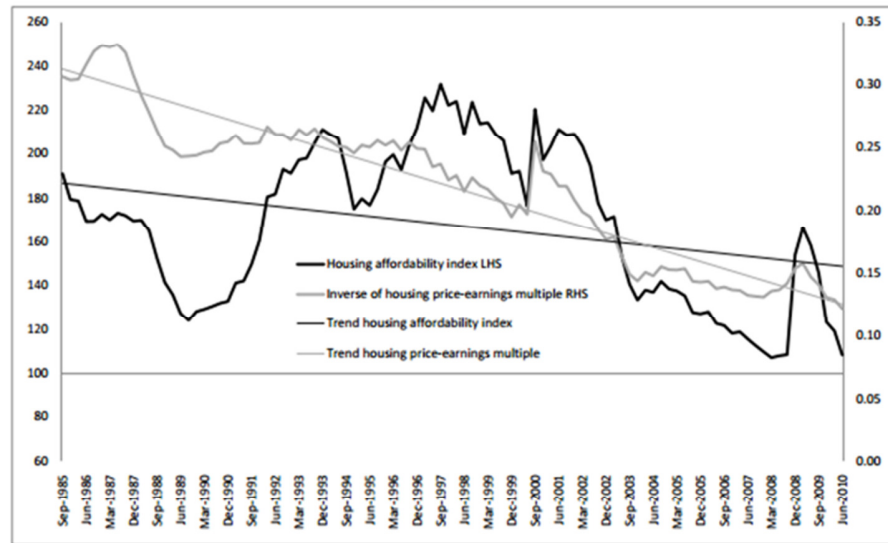
Although the 90s recession was the worst since the Great Depression, the economic conditions weren't enough to trigger a dramatic house price slide, or alternatively, the economy recovered quickly enough to prevent such a slide. The chart below shows GDP and unemployment overlaid with the house price index. The fall in house prices not surprisingly coincided with the recession and increase in unemployment.



The stabilizer effect

Despite the relatively tough economic conditions, there is an automatic stabiliser which occurs when interest rates fall. Between the end of 1990 and December 1992 home loan lending rates fell from 15% to 10%. As a consequence housing affordability improved materially, as the chart below shows. This would have limited the extent to which house prices could fall.

Figure 3 Australian housing affordability index and housing price-earnings multiples, September 1985– June 2010



Source: Australian Bureau of Statistics, Housing Industry Association

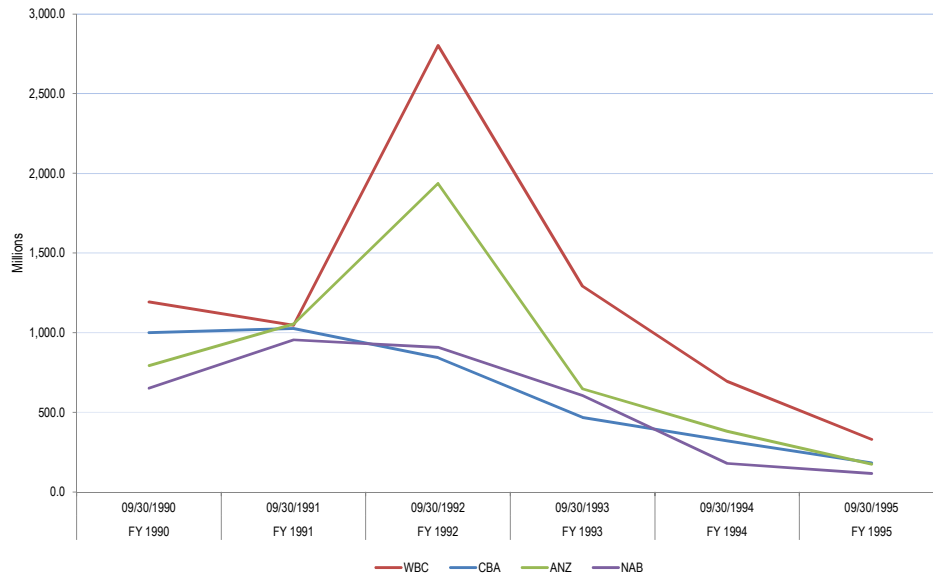
If housing was benign, why was the banking crisis so severe?

Despite the negligible default experience of residential mortgages, the Australian banking system experienced a severe stress episode in the early 90s. There were a number of reasons.

Two banks did dumb things

The 4 majors all embarked on different strategies during the 1980s with the result that they all had different experiences during the 90s. The chart below shows the bad debt experience of the 4 majors between 1990 and 1995. While all showed some stress in 1990 and 1991, NAB and CBA bad debt provisions fell after that, while ANZ and WBC enjoyed their own near death experiences in 1992 and 1993.

Bad debts. Major Australian banks (by individual bank) 1990 to 1995

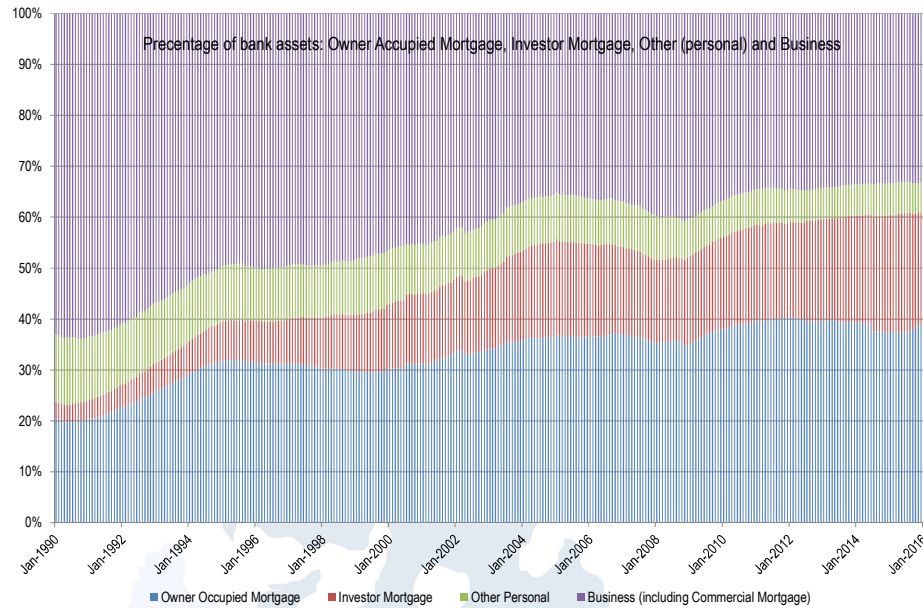


WBC:#wtf
#lol

In hindsight, some of the things going on in banks were unbelievable. For example Westpac had a “European” division that lent a lot of money in the UK property market. That division had bad debts of \$320m in 1992. To put that in context, the total WBC Australian bank had bad debts of \$540m that year. Total WBC bad debts averaged \$303m p.a. between 1995 and 2006, while CBA had total bad debts of \$843m in 1992. So someone at WBC in the late 80’s had a thought bubble experience along the lines of “well, even if we don’t have a deposit base in Europe/UK and we have no experience in that market, and we are going to have to chase marginal business, why don’t we throw a few \$billion at high risk property and see how it goes”. That was never going to end in tears was it? But that wasn’t the only dumb thing banks did. Large exposure to property developers was the big bank killer.

Banks were riskier then:

Commercial property and construction lending are the riskiest of bank assets. The same economic background that produced a 3% fall in residential prices produced a 33% fall in commercial property values between 1990 and 1992. Non property business lending has also been riskier than residential mortgage lending. Since the 90s, the ratio of riskier assets (business and property lending) has fallen substantially as shown in the chart below which tracks the changes in weightings. As the chart shows business lending (including commercial property) has fallen from about 60% during the early 90’s to 30% currently. Within that fall, property exposures have fallen. Westpac had a balance sheet with a c25% weighting to commercial property in the early 90s. System wide commercial property exposures are now around 8% of total assets, compared to 12% pre GFC.



Banks stopped lending

Unsurprisingly, both WBC and ANZ deleveraged for a few years in the early 90s but it looks like the other lenders also stopped lending. Total business loans outstanding fell 15% between 1991 and 1993 and this had an adverse effect on asset prices. Almost all commercial property and many business purchases are funded by a combination of equity and debt, and if there is little or no debt, there are fewer buyers and prices fall. The only ungeared buyers are institutional property trusts, but redemptions were frozen for a number of years as all investors wanted out. This circularity continued until lending re-emerged. It's interesting that commercial property values bottomed at the same time as business lending and then increased strongly as capital again became available. The writer had some firsthand experience when he was involved in the workout of a hotel/casino operation which defaulted in the early 90's. It cost \$65m to build in the late 80's, and had a mortgage of \$40m at default in the early 90's. It was valued in 1992 at \$13m with the only potential buyers being a group of Singaporean currency/gold dealers of Indian origin who would pay cash. No other buyers could raise finance. The property was sold at above mortgage levels in 1994 (i.e >\$40m), coinciding with a point around 12 months after the business lending began to grow again.

What will the next default cycle be like?

Clearly the next stress event will be different from the GFC and the early 1990s recession, partly because banks lend to different sectors, and also because the drivers of the real economy stress are different. The table below details some of the major factors we think are important to consider and what the comparatives from the early 90s and the GFC periods were. Overall, the structural risks are far better than the 1990's and slightly better than the GFC, so a short or shallow recession is not going to kill the banks.

	3/90/3/93	3/2007-3/2010	3/2016	Comment
GDP 3 years prior to event	15%	10%	7%	Economy has grown less than prior events: riskier
Unemployment increase during event	4.90%	1.50%	?	
Change in home loan rates over event -absolute	-6.5%	-1.15%	?	Interest rates have less room to fall than prior events
Change in home loan rates over event-relative	-40%	-15%		The low denominator means that falls of 1% in home loan rates have the same effect on servicing cost as the GFC fall
% of new loans that are high risk new loans (low doc & LVR > 90%)	small	31%	9%	Clearly less risky than prior events
Residential mortgage share of total bank loans	23%	54%	61%	Clearly less risky than prior events
3 year house price increase prior to event	22%	13%	28%	Price increase results in higher cushion than in both prior events
Business lending share at start of event	64%	37%	33%	Clearly less risky than 1990s
Commercial property share at start of event	20%?	11%	8%	Clearly less risky than prior events
Business lending growth in 3 years < recession	76%	54%	19%	Less evidence of "bubbly" lending
Business lending growth in 3 years > recession	2%	29%	?	Will banks stop lending
Loan losses as % of assets over event (good banks)	4%	1.2%	?	Lower allocation to business/property
Loan losses as % of assets over event (bad banks)	5.2%	2.2%	?	Lower allocation to business/property

What are our unknown unknowns?

Hubris: banks haven't lost money for 20 years, so there are probably potential problems disguised as strategy. What are some of those problems?

- Investor loans: some banks housing books are 40% investor loans and no one has any idea how they are going to perform. Prima facie, given they are probably not high LVR or low doc, they shouldn't be that much riskier, but no one knows.
- Fraud: we read about how banks have loosened standards, but the proportion of new loans that are low doc and high LVR are at historically low levels. We would have thought fraud in full documentation loans would be low and that valuation frauds are not very common but we could be wrong.
- Chinese apartment buyers: clearly there are an enormous number of off the plan purchases of inner city apartments which will not be settled if the Chinese government maintains its rules of letting citizens remit 50k p.a. to foreign currency.

Hybrid implications

We think the next recession will be equally as destructive on share prices as the last 2, but less catastrophic on a fundamental basis. As it unfolds, it will be a tug of war between watching the equity prices fall (bad for hybrid prices), the potential increase in yield of hybrids (good for hybrid prices) and the eventual realisation that it's not a near death situation for debt and bank capital providers (good for hybrid prices). We've got no idea which wins at what time, but we think the end result is reasonably clear with limited chances of "non viability" and excellent chances of uninterrupted cash flows for hybrid investors.

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