

**EXPERIMENTAL PRODUCER PRICE INDEXES FOR SERVICES  
INDUSTRIES - REAL ESTATE AGENTS' FEES**

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## **Abstract**

The Australian Bureau of Statistics (ABS) has commenced work on developing price indexes for a number of services industries. Among the industries selected for initial investigation was the real estate industry. This paper reports on the initial work to develop an index for real estate agents fees. It outlines the methodology used as well as some conceptual and practical issues that arose during development. Finally the first results of the experimental index are presented.

## **Introduction**

1. In July 1994 ABS commenced initial work on a long-term development program to progressively extend the scope of the Producer Price Indexes (PPIs) into the service sectors of the economy.
2. The main objectives of the program are to provide index series which can be used in producing constant price national accounts estimates and to support the development of economy-wide price measures.

## **Service Industries Studied**

3. The service industry price index development work is taking place within the classification framework provided by the Australian and New Zealand Standard Industrial Classification, 1993 (ANZSIC). The industries selected for initial study relate to transport and property services and include:

- (a) road freight - ANZSIC 6110;
- (b) rail freight transport - ANZSIC 6200 (part);
- (c) air freight transport - ANZSIC 6402 (part);
- (d) real estate agents - ANZSIC 7720 (part);
- (e) motor vehicle hiring - ANZSIC 7741; and
- (f) plant hiring or leasing - ANZSIC 7743.

4. These industries were selected in consultation with ABS' national accountants. Factors considered included the relative importance of the industry (in terms of the value of output), the expected development cost and the anticipated superiority of the price index relative to the best alternative available for the national accounts.

5. With respect to real estate agents, the initial investigative work has been completed and a Price Index of Real Estate Agents' Fees is now being regularly compiled on an experimental basis.

6. This index is discussed in detail below.

### **Experimental Price Index of Real Estate Agents' Fees.**

7. Real estate agents are classified to ANZSIC class 7720, "Real Estate Agents". This class is defined as consisting of "units mainly engaged in valuing, purchasing, selling (by auction or private treaty), managing or renting real estate for others".

8. The real estate industry in Australia divides naturally into two main sectors, residential property and commercial/industrial property. Each of these sectors has two main components; property sales and property management. Reflecting this industry structure the ABS index of real estate agents' fees covers

- the sale of a residential property,
- the management of leased residential property,
- the sale of a commercial property, and
- the management of leased commercial property.

9. The ABS conducted surveys of the real estate agents industry in respect of 1987/88 and 1992-93. On the basis of the results from these surveys, relative earnings from each sector and its components are shown in the following table in percentage form.

<b>Source of Income</b>	<b>%</b>
<b>Commissions and fees from property sales</b>	
- residential	50.3
- commercial/industrial	11.2
- other	5.8
<b>Commissions and fees from property management</b>	
- residential	13.5
- commercial/industrial	5.1
- other	1.95
<b>Income from other real estate activities</b>	12.5
<b>Total</b>	<b>100%</b>

10. Further, the survey revealed that 50% of businesses employed less than 5 staff which suggests most work carried out by real estate businesses is local. This is compounded by the fact that firms with fewer than 10 employees accounted for 81% of real estate businesses. A significant number of businesses, while independently owned, operate as part of a State or Nation wide franchise group i.e. trade under a common name.

11. From the above figures it can be seen that the real estate industry derives the majority of its income 50.3% from the sale of residential property, with residential property management accounting for a further 13.5% of income. Commercial/industrial property sales and management accounts for 16.3% of industry income.

12. Residential sales and property management, and commercial/industrial sales and property management, together account for 80.1% of total agents income. As a result, the development of the real estate price index has been confined to measuring prices charged for these services.

### Deregulation

13. A process of deregulation, on a State by State basis, has been taking place in the industry since 1992. With the exception of Queensland and Western Australia, all States have removed the regulations governing the maximum scale fees agents were able to charge clients. Apart from efficiency arguments a chief reason for deregulation was that clients perceived the scale as a prescribed government fee, and generally no negotiation was entered into. This was not the case.

### **Coverage of the ABS Collection**

14. The ABS collection in respect of residential property is a sample survey supplemented by direct collection from a few major franchise operators. The sample of real estate agents selected was chosen from the ABS's business register and relates only to the residential category of the industry. The sample upon which the index is constructed is a stratified sample which covers the five principal State capital cities. For example Sydney and Melbourne were each broken into 5 regions, while Brisbane, Perth and Adelaide were divided into fewer larger regions. The data will not be compiled to produce separate regional indexes.

15. Given the large number of businesses in the residential category the ABS found it expedient to enrol several of the large franchise head offices to supplement the sample. The franchises provide data for a selection of their representative offices. The benefit of the supplement to the ABS is that it improves the quality of match sampling.

16. Commercial sales and property management services in Australia are the domain of a few large businesses. The ABS has approached these businesses directly.

## **Residential Real Estate**

17. As indicated there are two principal components of the residential sector of the real estate industry. These are the services of selling a residential property and managing residential property which is available for rental. In order to construct an index which measures price change associated with the two services, the ABS collects details of the fees agents charge for selling a property as well as the associated selling price, and the amount charged (normally a percentage of the rent) for managing a rental property.

18. Selected agents are sent a collection form on a quarterly basis. The form is a single A4 sheet. The front sheet provides an explanation of the purpose of the survey, the authority under which the survey is conducted and lists of contact numbers in the event respondents have any queries. The second page contains the survey questions. Respondents are asked to list up to a maximum of six residential properties they sold during each month of the quarter, the price the property sold for, and the fee they charged the client for their service. The service fee is to be net of advertising costs etc.

### **Residential Sales**

19. After entry and input edit checks the price change in fees for the sale of property is calculated in two stages. The basis of the calculation is quarterly by State. The first stage uses a matched sample methodology (matched by selling price). This initial calculation determines the change in fee (i.e. whether the fee on a property of given value has changed).

20. The second stage adjusts for changes in fees which result from the general movement in the selling price of properties. Even though the nominal fee (eg fee per thousand dollars of selling price) may be unchanged, if property prices increase over time, then the actual fee received will increase. That is, the dollar fee obtained is a combination of the fee rate and the value of the property. The adjustment for the change in the selling prices of properties is made by combining the fee change calculated in stage one with the estimated change in house prices (as given by the ABS's established house price index) to give the estimated change in actual fees (for a comparable transaction).

### **Residential Property Management**

21. The data for property management services is compiled using a simple matched sample approach. Again, the outcome of the initial calculation takes no account of the effect on price of changes in the level of rents. Accordingly, the calculation is combined with an estimate of changes in rents (the CPI index of privately owned dwelling rents) to derive the estimated change in actual fees earned.

22. This approach does not consider the fee for letting a property. A letting fee is the initial fee an agent charges to get a tenant into a residence. It is usually about one week's

rent. This fee is not measured directly.

## **Commercial Property**

23. Commercial sales and property management services are the domain of large firms. The nature of these transactions is "lumpy" and there are significant associated quality issues.

### **Commercial sales**

24. The fees charged by the agents are linked to the value of the property for sale. However, each contract between a vendor and an agent is different and, due to the nature of transactions in the commercial market, it is extremely difficult to ascertain the actual fees charged and the specific services provided for that fee. Generally the starting point for negotiation of the fee for service is a percentage of the selling price of the building, with fees charged tending to be a function of the movement in the market. Therefore, the ABS has decided to use movements in selling prices of commercial property as a proxy for the measurement of movements in commercial real estate agent fees.

25. The ABS obtains, from a private sector property management company, series measuring changes in the sale price of commercial property. The indicators show the average capital value per square metre of net lettable area for an aggregate basket of similar buildings.

26. Accordingly the methodology used to compile the index of price change for commercial sales is straight forward. The current ABS base period of 1989-90 was set as an average of capital values reported in this period. The index of quarterly price changes is produced by referencing each subsequent quarter's capital value to the base period.

### **Commercial property management**

27. As with commercial property sales, agents' income is based on a scale of fees for both leasing and property management.

28. Again the ABS is using movements in actual rents as a proxy for movements in management fees. Two rent series, one based on gross rents and one on effective rents, are obtained from a property management firm. The gross rent series is based on the market rental achievable for a lease of 1000 square metres. The effective rent series allows for the value of concessions like rent free periods. This would appear to be a more accurate representation of the true current market rental.

29. The effective office rent series is the ABS's proxy for changes in agents' fees for property management and leasing. At times there is not a straight linear relationship

between rents and fees, as companies occasionally charge minimal property management fees to get the leasing rights to a building. However, in a broad sense, the relationship holds.

30. The methodology used to compile the index of nominal rents is the same as that used to compile the capital values index.

31. Each of the two components of the two sectors is then weighted together to form a quarterly State based index for its respective sector. The residential and commercial indexes are then weighted to form the Australia wide index.

### **Conceptual and Practical Issues**

32. The compilation of the price index of real estate agents property selling fees using recorded price observations provided by respondents posed a number of problems and several methods of compilation were tried.

33. The most significant conceptual issue has been quality control. This has been a particular cause for concern in the residential sales market. Conceptually the problem involved the fundamental issue of comparison of the same service between quarters. The effort agents have to put into selling a property is not only a function of the size, type and location of the property, but also the prevailing economic climate.

34. The matched sample methodology endeavours to overcome the problem by comparing the service rendered on selling the same priced property. However, because two or more properties sell for \$150,000 each, there is no guarantee the same service was rendered. Again, the factors of location, size and type have a significant impact on the level of service required to achieve a sale. Another difficulty with the matched sample approach is that valid data is discarded during compilation if it occurs only once.

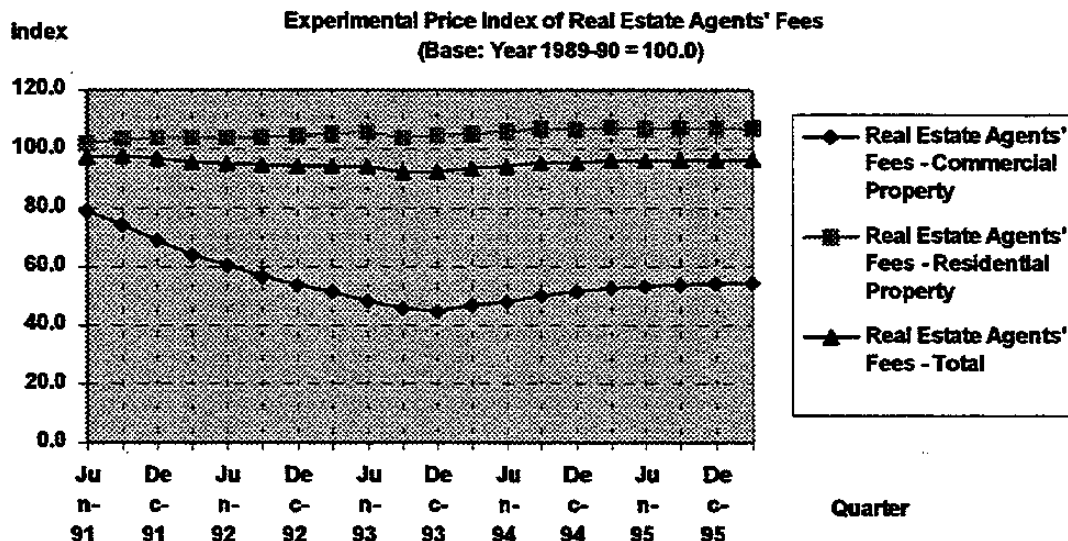
35. The sample of residential real estate respondents was supplemented by enrolling a number of the franchise head offices to supply data for selected offices. This enabled a significant increase in the number of observations at a low cost. By collecting data from these organisations, the ABS also was able to cross check the results of the whole matched sample against the result produced by a matched sample of representative offices of franchises.

36. Commercial property sales have presented similar concerns in regard to maintaining constant quality, though of a greater magnitude. The ABS has endeavoured to overcome these through the use of proxies as mentioned above.

### **Main Results and Conclusions**

37. The price index the ABS constructs for the real estate industry consists of a number

of sub indexes. Separate indexes are compiled for residential and commercial real estate transactions and for property sales and property management transactions. These series are collected and compiled separately for five State capital cities, namely, Sydney, Melbourne, Brisbane, Perth and Adelaide. These city indexes are combined to produce an all cities index for each sub-index. Sub-indexes are then aggregated to produce an all cities Price Index of Real Estate Agents' Fees. The following chart depicts movements in the experimental series.



38. Since the base period (1989-90) the overall Price Index of Real Estate Agents' Fees has recorded a decrease of 3.6% with the index for the latest period, June quarter 1996, standing at 96.4. Over this period the index displays two phases. From 1989-90 to December quarter 1993 the index fell steadily; subsequently, the index has recorded a steady increase.

39. In terms of the component series the most significant movement has occurred in the price index of commercial property fees. This reflects the major downturn experienced by the commercial property sector of the industry during the early 1990s, which led to large falls in commercial property values and rents. Consequently the fees obtained by agents for selling or managing such property also fell. The other component series, the index of fees for residential property, has shown a small but steady rise over the entire period, reflecting the underlying increase in house prices over this period.

40. The fall in the index of commercial property fees has been the source of the

downward trend recorded in the overall index of real estate agents' fees. However, the relative low importance of this sector in the overall real estate industry compared to residential property has meant that the total index has been dominated by the small and steady increase in agents' fees for residential property, again the result of the increase in house prices over the period.

### **Future Developments**

41. The ABS plans to compile and publish price indexes for the service industries listed in paragraph 3 on a progressive basis.

42. Investigations have recently commenced on establishing price indexes for a further range of service industries relating to transport and property services. It is planned to develop measures for a selection of business services over the next few years.