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THE EFFECT OF ACCOUNTING FIRM MERGERS ON THE MARKET FOR AUDIT SERVICES: NEW ZEALAND EVIDENCE

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Abstract:

This article examines the outcomes of accounting firm mergers using data about the frequency of audit switches, the numbers of partners in the respective firms, and perceptions revealed in interviews with partners. Evidence from client switches does not show any evidence that the mergers were followed by cost reductions, nor of collusion to force prices up. The effects of the mergers appear to have been elsewhere – the merging firms reduced partner numbers substantially, increasing partner leverage so that individual remaining partners were better off. Data from interviews confirm these findings, and show that the culture of individual firms had a significant effect on determining which group of partners controlled the merged firm.

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THE EFFECT OF ACCOUNTING FIRM MERGERS ON THE MARKET FOR AUDIT SERVICES: NEW ZEALAND EVIDENCE

1 Introduction

In 1989, two accounting firms merged their offices in many countries of the world, including the United States and New Zealand, reducing the major firms to the Big Six. The firms of Deloitte, Haskins & Sells and Touche Ross became Deloitte Touche Tohmatsu, and Ernst & Whinney and Arthur Young became Ernst & Young. When the mergers occurred there was a significant increase in concentration of accounting firms providing audit services to listed companies. Subsequently, another merger between Price Waterhouse and Coopers & Lybrand to form PricewaterhouseCoopers and the demise world-wide of Andersen (including being merged with Ernst & Young in New Zealand) make this topic even more salient. The concern of regulators and auditors is that reduced competition may allow profit maximization through price increases or collusion by audit firms seeking to maximise their total income (e.g., Sullivan, 2002). The effects of these mergers in the New Zealand audit market are examined, using pluralistic research methods to examine the outcomes of the mergers. In contrast to previous studies, we examine the effects on the firms themselves, using both publicly available data and interviews, and find that the direct effects of the mergers are not income maximization at the firm level, but partner income maximization.

This research adds to previous findings (which are mainly in the US) by examining evidence from partner numbers and qualitative data from interviews with partners in the merging firms.[1] It also provides evidence from a smaller jurisdiction,

[1] This allows us to apply both quantitative and qualitative research approaches, consistent with Abdel-Khalik (1983) who advocates that researchers should triangulate both within and across research

one where the mergers were foisted upon the partners without being based on an assessment of the benefits of merger synergies in the local audit market.

As in previous studies, merging firms did not gain significantly more (or less) new work. Nor did the frequency of auditor switches change significantly, showing no evidence of across-the-board cost reductions, unilateral price increases or collusion among remaining firms. These results suggest other reasons are needed to explain the mergers. The data on partner numbers show that the mergers had a substantial effect in allowing firms to increase partner leverage by reducing the numbers of partners. The interview data reveal that each merger involved one firm with greater cohesion and prestige than the other merging firm, and the culture of the firms had a considerable effect on the outcome of the merger and which partners were downsized. The stronger merging firm appeared to be able to take as many of the audits from the other firm as desired and as few of the partners as possible. Many of the partners who did not join the merged firm were in offices in small towns, and were oriented towards small business and farm accounting.

2 Prior Literature

(i) Accounting Firm Mergers

Audit firm mergers have been previously studied in other countries, but in most cases over a shorter period and with some limitations to the data. An assumption in most of the previous studies is that the audit firms are seeking to maximise their income in a similar way to corporations.

Wootton, Tong and Wolk (1994) used concentration ratios and the Herfindahl index to measure auditor concentration based on numbers of clients and client

approaches. He noted: “The philosophic support for triangulation is based on the tacit assumption that any single theory, research method, particular empirical study, etc, is manifestly incapable of divining the nature of reality in all its complexities” (Abdel-Khalik 1983, 381).

revenues in the United States related to two mergers. Both mergers were followed by increased market concentration. Iyer and Iyer (1996) examined audit fees paid by 270 companies in the UK to Big 6 firms, comparing 1987 with 1991 data. They concluded that there was no significant increase in external audit fees after the mergers. Ivancevich and Zardkoohi (2000) used the number of offices as a proxy for office costs, and the asset base of the audit clients as an indicator of market share. They concluded that the mergers mainly resulted in increased efficiencies within the audit market, passed through to end-users in the form of lower prices. Menon and Williams (2001) examined audit fees of US companies that voluntarily disclose this information, and found that there was a short-term increase in fees subsequent to the 1989 mergers but no long term effect.

Sullivan (2002) failed to find any significant increase or decrease in switches won by the merging firms in the US. These results are not consistent with the merging firms imposing either across-the-board cost reductions or unilateral price increases. Further, the fringe firms (non-Big 6 audit firms) did not win more audit switches after the mergers, and therefore there was no evidence of collusion on prices. However, the merged firms were more successful at winning audits of large clients after the mergers, which implies they were able to offer lower fees to large clients due to efficiencies arising from the merger. Auditor switching studies are discussed in more detail in the next section of this paper.

More recently, the collapse of Arthur Andersen led to increased concerns of a lack of competitiveness among the remaining Big 4 (GAO, 2003). The GAO's 2003 study on consolidation and competition among public accounting firms in the US found that market concentration had reached levels by 1998 at which the largest firms have

significant market power. The GAO found no evidence of impaired competition but warned that there may be implications for competition in the future.

Outside the US, merger outcomes have varied. Christiansen and Loft (1992) reported that the 1989 mergers were followed by increased concentration in the market for audit services in Denmark, but also by increased competition. Choi and Zéghal (1999) examined the audit services markets in 10 countries in 1986 and 1991. In all countries there was greater concentration in the market after the mergers, but in some countries (France, Italy, Netherlands, Switzerland and the US) there were then more equally-balanced market shares and more even competition. However, there was less competition in Canada, Denmark, Germany, Sweden and the UK. Thavapalan, Moroney and Simnett (2002) studied the market share of Australian publicly listed companies for audit firms to ascertain levels of auditor concentration after the Price Waterhouse/Coopers & Lybrand merger in 1998. The Herfindahl Index suggested that the merger did not necessarily decrease competition, and the authors argued that a more equitable spread of clients among the Big 6 firms had been achieved in the post-merger period.

The issues of audit firm competition and the factors driving mergers are still of considerable relevance, although the market for audit services has changed over the period since the late 1980s.[2] The previous studies examined firm income maximization. Our evidence (including evidence from partner numbers and interviews) is consistent with the view that partner income maximization is of greater importance.

(ii) Auditor Switching

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[2] For example, Ferguson and Stokes (2002) show that the market in Australia had changed so far as the impact of industry specialization on audit fees is concerned.

Existing literature on auditor switching has concentrated on variables related to the client companies, rather than changes in the audit firms themselves, although factors on both sides of the relationship will be relevant. The switching literature extensively examines opinion shopping – the issue of whether clients switch auditors for opportunistic reasons or for other reasons based on economic events. Opportunistic switching, in which clients engage in 'opinion shopping' for a lenient auditor does not appear to be widespread, although the evidence is mixed. For example, the results in Chow and Rice (1982) support the contention that firms switch auditors more frequently after receiving qualified opinions. However, Schwartz and Menon (1985) find that this effect is not evident when client financial distress is controlled for.

Subsequent studies generally find that if opinion shopping exists, it is not frequent (Smith, 1986). Craswell (1988) finds evidence consistent with managers' switching auditors more frequently following qualification. Krishnan (1994) and Krishnan and Stephens (1995) find that clients who switched were treated relatively conservatively by both predecessor and successor auditors, suggesting either the absence of successful opinion switching or that the increased switching is not motivated by opinion shopping. Carcello and Neal's (2002) results suggest that a less independent audit committee is associated with greater managerial latitude in changing auditors.

Other explanations for auditor switching which have been supported by research include changes in management (e.g., Beattie and Fearnley, 1995), and changes in client characteristics that affect agency costs (e.g., Healy and Lys, 1986; Johnson and Lys, 1990; DeFond, 1992). Williams (1988) examines both client and auditor factors associated with switches, and finds significant associations between switch and auditor industry market share, audit firm longevity and client receiving negative

media publicity. Similarly Anderson Stokes and Zimmer (1993), examining switching in an environment of corporate takeovers, find only limited support for switch decisions being related to economies of scale and client-specific specialization. The study presented here examines switching as it relates to the audit firms.

3 Sources of data

Our study uses several sources of data not available in previous research, including:

- A long-established historical time series of listed company audit fees and assets;
- Partnership data for the years 1976 – 1994; and
- Interviews with (mostly) retired partners from the Big 8, reflecting on merger activities.

These sources allow us to investigate the effects of the merger on individual partners, and the impact of individual incentives. The company data totalled 2485 audits including 251 switches in the 1985 - 2001 period. The number of partners in each audit firm was obtained from the New Zealand Society of Accountants[3] *Yearbook*, for each year from 1976 until this information ceased to be published annually from the end of 1994. Qualitative data were derived from an ethnographic study of accounting firm genealogies in New Zealand in which 40 partners in the Big 8 were interviewed in an oral history project. The interviews sought the subjects' observations on merger events, client movements and leverage within partnerships.

The interview subjects were respondents to a survey of members of the Institute of Chartered Accountants of New Zealand who had been partners in major audit firms between 1982 and 1992 and who had agreed to be interviewed. Retired partners and

[3] Now Institute of Chartered Accountants of New Zealand.

former partners were selected because it was believed they would be able to talk more freely about their experiences. All of New Zealand's large firms were represented, as well as both urban and rural practices scattered throughout the country. The objective of the interviews was to discuss and review the reasons for the survival of the remnant Big 4 firms, and to discuss factors that had contributed to the collapse of other large firms in New Zealand in the 1980s. The interviews were conducted under the aegis of the protocols for oral history. They were unstructured interviews, usually one to two hours long. All tapes are lodged in the National Oral History Archives. The interviewees read and made corrections as required to the transcripts, mainly to spelling of proper nouns. Three interviewees requested minor deletions of passages, but these were all personal in nature. Both authors read all the transcripts. The extracts analysed in this paper were considered by both authors to be typical of the sentiments expressed. Neither author identified any response which could be considered an 'outlier' to that offered in this study as representative of the experiences of partners in particular firms. All survey respondents and participants in this study were invited to read research outputs from this project on a website. No adverse comments were received from participants.

The interviews were conducted from July to December 2002. Although this was some time after the events described, this was a necessary outcome of selecting former partners who would be able to discuss these matters more freely. The experiences analysed were related by multiple members of the same firm. There were six interviewees from each of the merging firms. We also used newspaper reports and books of firms' histories in order to triangulate with the narratives and the quantitative data from audit fees.

4 Analysis

We first present descriptive statistics including market concentration, followed by tests of competition similar to those in previous studies. Then the effects on the individuals concerned are examined.

4.1 Descriptive statistics

Table 1 reports descriptive statistics showing the market share of audit firms from 1987 to 2001, both by number of clients and value of audit fees. It also reports the CR4 concentration ratio and Hirschman-Herfindahl index, two commonly used measures of industry concentration. According to the GAO (2003) the US Department of Justice and Federal Trade Commission regard markets with a Hirschman-Herfindahl index of below 1000 as “predisposed to perform competitively,” while a market with a Hirschman-Herfindahl index of greater than 1800 is “a highly concentrated market in which firms have significant market power.” The Hirschman-Herfindahl index, computed on the basis of audit fees (Table 1) has been above 1800 since the Big 6 mergers occurred in 1989. It reached a high of 2700 with the PricewaterhouseCoopers merger in 1998, but subsequently declined. After 2001, the merger of the New Zealand firm of Arthur Andersen with Ernst & Young increased it again, to approximately 2300. These results suggest that the Big 4 have significant market power, and have done so for some time. The CR4 measure (market concentration of the biggest four suppliers) peaked in 1992, and declined until 1995, then increased again.

TABLE 1 HERE

Table 1 also shows that the total value of audit fees for listed companies in New Zealand was at its highest in 1990, and has since declined. (The amounts reported are not adjusted for inflation, so the decline in real terms is even greater). A few large

audits have a substantial effect on the market in New Zealand, especially the audit of Fletcher Challenge, jointly audited by KPMG and Coopers & Lybrand (subsequently PricewaterhouseCoopers), which amounted to 28.3% of listed company audit fees in the year 2000, before Fletcher Challenge was broken up into four components.

KPMG had the largest market share throughout most of the period, and had a growing share of the market (with 2001 as an exception – at that point large KPMG clients Brierley Investments and Nufarm Industries moved their headquarters out of New Zealand). Arthur Andersen had no presence in New Zealand in the 1980s, and expanded from a small base in the 1990s. Of the merging firms, Deloitte Touche Tohmatsu lost market share (based on audit fees) after the merger. Ernst & Young suffered similarly, when joint audits are taken into account. PricewaterhouseCoopers' market share remained approximately static after its merger (when fees from its joint audits are considered).

The analysis reported in the paper is concerned mainly with listed companies in New Zealand, which do not represent the whole market for audit services. Other entities that are audited include subsidiaries of overseas companies, which are required to be audited by New Zealand law. We did not obtain financial statements for these companies, but we were able to obtain the size of the larger companies from the *Management* magazine Top 200 listing in 1989 and in many cases to identify their auditors in a business directory (*The New Zealand Business Who's Who*). We examined 51 of these companies in 1989 (before the mergers) and 68 in 1993. The share of companies in our sample audited by the merging firms did not change substantially. We found that KPMG had substantially increased its numbers of overseas-owned unlisted company clients, from 3 out of 51 to 13 out of 68, and from 7.7% of the assets of non-finance industry companies to 16.7%, and from zero to

45.3% of the finance industry clients. However, there was no similar effect for Coopers & Lybrand, which kept approximately the same number and percentage of overseas-owned unlisted companies. Of the other firms, Arthur Andersen grew from having no presence at all in 1989 to three clients in 1993, but these represented only 3.3% of non-finance companies by assets and less than one percent of finance sector assets. Price Waterhouse had the strongest share of the market among overseas-owned unlisted company clients, in contrast to its position among listed companies, but lost ground relative to the other firms. It audited 13 of the non-finance sector companies in both 1989 and 1993, its share of assets declining from 34.0% to 29.5%. In the finance sector it increased its number of clients from 2 to 4 but its market share fell from 41.8% to 31.2%. Thus, the unlisted company data also reveal little effect from the mergers.

4.2 Switches

The relative number of switching clients won by merging and non-merging firms indicates indirectly whether the firms increased or decreased their fees, and can be used as a measure of whether the mergers led to efficiencies passed on to clients, or to collusion and higher prices. The observations were divided into periods using the same classifications as Sullivan (2002), namely a pre-merger period (1985 to 1988), transitional period (1989 to 1993) and a post-merger period (1994 to 1996). We also add a subsequent period, 1997 to 2001. Switches won by the merging and non-merging firms before and after the mergers are shown in Table 2, Panel A. Chi-squared tests comparing the shares of the firm in the periods before and after the mergers failed to show a statistically significant difference between either the pre-merger and transitional periods, or the transitional and post-merger periods. The same result applies to auditor switches, new listings, and the two combined. The table

shows the merging firms (including PricewaterhouseCoopers), other Big 8 firms and fringe firms. We also tested each of the merging firms individually in comparison with all other firms, and each period compared to the adjacent periods. None of these results were significant showing no indication of cost reduction or unilateral price increases as outcomes of the mergers. Further the effect of the PricewaterhouseCoopers merger was tested using a chi-squared test of clients gained by this merged firm compared to all others (test results not shown). PricewaterhouseCoopers gained slightly fewer clients after its merger, but this was also not significant. This approach to examining the effects of the mergers is somewhat indirect, as clients may switch for other reasons apart from getting fee decreases as discussed in the literature review. However it is consistent with previous studies, particularly Sullivan (2002).

TABLE 2 HERE

If the smaller number of big firms leads to increased collusion on audit fees, then competition for a switching client is more likely to be won by a non-Big-6 auditor (Fringe auditor). Fringe firms won no larger (or smaller) share of switches after the mergers. The New Zealand data do not support collusion (co-ordinated effects) as a rationale for these mergers.

In Table 2, Panel B the three periods are examined and the non-merging Big 6 firms are classified into three categories – the merging firms, the ‘growth’ firms and ‘stable’ firms. There were clear differences in the market positions of the growth firms (Price Waterhouse and Arthur Andersen) which were small and fast-growing and the stable firms (Coopers & Lybrand and KPMG) which were the largest two firms and had very stable market shares. The growth firms had a relatively small

presence in New Zealand (Price Waterhouse) or no presence at all (Arthur Andersen) before 1989. They obtained a very small share of switches and new work before 1989, a growing share in the early 1990s and the largest share in the mid-1990s. The results of the chi-squared test of this difference are strongly significant. However, the difference does not appear to relate to the mergers, but rather to a trend for these firms to achieve a market share more in line with their worldwide reputations.

Sullivan (2002, p. 391) finds evidence that the rationale for the mergers is the reduction in costs by the merged firms that apply to large clients only. We divided the observations into small, medium, and large categories, with equal numbers in each category. The number of switching clients in each category is reported below each bar column in Figure 1. Ernst & Young gained a larger share of large switching clients, and the fringe auditors gained less. However, the non-merging Big 6 firms gained more of the switching large clients than the two merging firms. This result suggests that the mergers were not the most important factor influencing changes in market share among large clients.[4] Sullivan (2002) assumed that the mergers could be explained by firm income maximization. We argue, however, that it is more probable that partner income maximization was of primary importance in motivating the mergers. We present data in subsequent sections to support this view. In summary, if the mergers had cost effects leading to price effects, these appear to have had little effect on the market for audit services.

FIGURE 1 HERE

[4] The number of observations is small, and so these conclusions are provisional, but there is no strong evidence of merger effects on switches.

4.3 Partner numbers

Factors other than audit firm income maximization may be important in determining the outcomes of the mergers. In particular, we suggest that partner income maximization was a determinant. An advantageous outcome of the mergers for individuals can be increased partner leverage – where an existing group of partners can obtain the revenue from a larger group of clients, or a smaller group can share the revenue of the existing group of clients. The benefits for individuals of increased leverage apply both in partnerships with equal sharing of income among partners, and in those with differential levels of sharing – it is still more advantageous to individuals to be able to share the 'pie' with a smaller group.

We examined partner numbers for the period 1989 to 1993 (after this, this information ceased being published). In the period immediately following the 1989 mergers, both merging firms considerably reduced their numbers of partners (Table 3). By 1993, Ernst & Young reduced partner numbers by 28% from the combined total of the two merging firms, with a greater proportion of those dropping out being former Ernst & Whinney partners. Deloitte Touche Tohmatsu reduced partner numbers by 56% – to the level of the number of partners in the smaller of the two pre-merger firms. Most of the departing partners were from Touche Ross, and only 13 of the 83 pre-merger Touche Ross partners remained in Deloitte Touche Tohmatsu in 1993. In that case, large numbers of partners departed to other Big 6 firms or to smaller firms, and in effect did not join the merged firm at all. Reducing partner numbers increases partner leverage by reducing the numbers among whom partnership income is distributed. From the perspective of partners, a merger that results in lower revenue and income can still be advantageous, if there are relatively greater reductions in partner numbers. The extent of partner reductions in New

Zealand after the mergers is much more striking and consistent than any of the market share, auditor switching or audit fee effects.

TABLE 3 HERE

Other accounting firms also reduced their numbers of partners somewhat between 1988 and 1993: Coopers & Lybrand from 102 to 90; Price Waterhouse from 43 to 37 and KPMG from 100 to 68. KPMG also reduced offices from 16 to 6, and was the only firm to achieve similar reductions in numbers to the merging firms. These changes suggest that economic factors were behind the reduction of partner numbers. Possible factors included the stock market crash of 1987, the deregulation of the New Zealand economy and increased overseas investment taking place at about the same time — all of which are likely to have reduced the demand for auditing. However, the mergers also appear to be important in providing the opportunity for partner reductions, as the non-merging firms did not experience similar levels of reduction.

4.4 Firm culture

Further evidence about the outcomes of the mergers, and their causes is obtained from interviews with partners. Oral history interviews were conducted with 40 partners in various audit firms at the time of the mergers. These interviews are summarised in the Appendix.

According to the interviewees, Arthur Young had a strong unified culture, with income shared on a national basis. In contrast, Ernst & Whinney was not highly regarded technically, did not share partnership income nationally, and acted more as a group of sole practitioners. Many Ernst & Whinney partners left the firm after the merger. In interviews they remembered this as the result of ruthless performance

evaluation by the former Arthur Young partners; to the Arthur Young partners, the former Ernst & Whinney partners who left were “simply not up to it.”

In the other merger, Deloitte Haskins & Sells had a strong and unified culture, while Touche Ross suffered from internal divisions among partners from previous mergers. The Touche Ross partners were also not as highly regarded. Comments from a former Deloitte partner are that Deloitte Haskins & Sells felt they could dominate the merger, control the management positions and choose which Touche Ross partners did not join the merged firm. A Touche Ross partner commented that many of the partners in that firm decided that the merger was “not for them.” The interviews included some comments that people get “chopped” who are just “in the wrong place at the wrong time”; others are “simply not up to it” or “older partners who are slowing down.”

It is not possible for us to evaluate the quality of the individuals concerned or the reasons why certain people did not join the firm, including whether it is due to poor performance by the former Ernst & Whinney or Touche Ross partners, or aggressive behaviour by the former Arthur Young or Deloitte Haskins & Sells partners. It is clear that, in both mergers, some partners did not feel compatible; the merger was followed by substantial reductions in partner numbers compared to the total of the two firms before the merger; and partners from one of the merging firms were dominant in the merged firm. The two mergers differed in some of the processes – the Deloitte Touche merger was seen as a process of the dominant Deloitte group being able to “cherry pick” those few Touche Ross partners that they wanted; while in case of the Ernst & Young merger it was perceived that the Ernst & Whinney partners were absorbed into the merged partnership, but subsequently did not stay.

Despite the costs to some partners, the mergers would have been difficult to avoid for the New Zealand firms. Although national partnerships can in some cases avoid taking part in such a merger (as in the examples of Touche Ross of Australia or the UK firm of Deloitte Haskins & Sells in 1989) there was little alternative available to the New Zealand firms. They would also have been aware that shortly before this time the national partnerships of KMG Kendons and Lawrence Anderson Buddle had disintegrated after the loss in each case of the firm's international Big 8 firm association.

Similar information about more recent mergers is not available. Interviewees who had been partners in Price Waterhouse or Coopers & Lybrand (or Arthur Andersen) had retired from the partnership prior to the recent mergers. However, anecdotal evidence and news reports from other countries suggest similar partner leverage effects after the PricewaterhouseCoopers and Ernst & Young/Arthur Andersen mergers. For example, PricewaterhouseCoopers in the UK reduced partner numbers by 10% soon after the merger (Kemeny, 2001).

6 Discussion and conclusion

We examined the changing market for audit services after audit firm mergers in a setting where more extensive data about audit fees and partners are available than in previous research settings (such as the US). Previous studies examined firm income maximization, but we present evidence that partner income maximization was of more importance. Our results failed to find overall cost reductions or unilateral price increases as outcomes of the mergers. The fringe firm data do not support collusion among the big firms. An examination of partner numbers, and interviews with former partners, reveal the importance of partner leverage effects, where individual partners can be made better off while downsizing the firm. These results are consistent with an

observation that partnerships have different objectives than corporations, and partners can seek to benefit from downsizing, so long as the number of partners is reduced proportionately more than the amount of net income. Interviews with partners showed that the more united groups of partners from Deloitte Haskins & Sells and Arthur Young respectively were able to dominate those from Touche Ross and Ernst & Whinney, and to predominate in the merged firms. Such extensive evidence about more recent mergers is not yet available, but what we do have is consistent with our conclusion.

This project has offered an extension of previous research based on multiple sources of data to provide a richer understanding of merger events. Oral histories added richness to the other data. Carrying out the study in New Zealand has the advantage of access to audit fee data, and a relatively compact audit market, which facilitates examining the effect of mergers imposed on audit firms. It has the disadvantage that the numbers of observations are smaller than in the US, so that in some cases the trends in client switches (when considering the different client sizes) are not as clear, and the possibility that the results obtained in this setting may not be generalizable to other settings.

5 References

Abdel-Khalik, A. Rashad, 'An evaluation of "The Everyday Accountant and researching his reality"', *Accounting, Organizations, and Society,* 8 1983.

Anderson, D., D. Stokes, and I. Zimmer, 'Corporate takeovers and auditor switching' *Auditing: A Journal of Practice & Theory,* 12 1993.

Beattie, V., and S. Fearnley, 'The importance of audit firm characteristics and the drivers of auditor change in UK listed companies', *Accounting and Business Research* 25 1995.

Carcello, J. V., and T. L. Neal, 'Audit Committee Characteristics and Auditor Dismissals following "New" Going-Concern Reports', *The Accounting Review,* 78 2003.

Choi, M. S. and D. Zéghal, 'The effect of accounting firm mergers on international markets for accounting services', *Journal of International Accounting, Auditing and Taxation*, 8 1999.

Chow, C. W. and S. J. Rice, 'Qualified Audit Opinions and Auditor Switching', *The Accounting Review,* 57 1982.

Christiansen, M. and A. Loft, 'A study of increasing concentration in the Danish market for auditing services', *European Accounting Review,* 1 1992.

Craswell, A.T., 'The association between qualified opinions and auditor switches', *Accounting and Business Research,* 19 1988.

DeFond, M.L., 'The association between changes in client firm agency costs and auditor switching', *Auditing: A Journal of Practice and Theory,* 11 1992.

Ferguson, A., and D. Stokes, 'Brand name audit pricing, industry specialization and leadership premiums post big 8 and big 6 mergers', *Contemporary Accounting Research,* 19 2002.

GAO (General Accounting Office), 'Public Accounting Firms: Mandated study on consolidation and competition'. The Report to the Senate Committee on Banking, Housing, and Urban Affairs and the House Committee on Financial Services, 2003. www.gao.gov/new.items/d03864.pdf

Hay, D. and W. R. Knechel, 'The Impact of Deregulation of Audit Markets on Audit Fees', Unpublished working paper, University of Auckland, 2003.

Healy, P., and T. Lys, 'Auditor Changes Following Big Eight Mergers with Non-Big Eight Audit Firms', *Journal of Accounting and Public Policy,* Winter 1986.

Ivancevich, S. and A. Zardkoohi, 'An Exploratory Analysis of the 1989 Accounting Firm Megamergers', *Accounting Horizons,* 14 2000.

Iyer, V. M and G. S. Iyer, 'Effect of Big 8 Mergers on Audit Fees: Evidence from the United Kingdom', *Auditing: A Journal of Practice and Theory,* 15 1996.

Johnson, W. B. and T. Lys, 'The market for audit services', *Journal of Accounting and Economics,* 12 1990.

Kemeny, L., 'Turbulent times at PwC', *Accountancy Age*, March 2001.

Krishnan, J., 'Auditor switching and conservatism', *The Accounting Review,* 69 1994.

Krishnan, J. and R. Stephens, 'Evidence on Opinion Shopping from Audit Opinion Conservatism', *Journal of Accounting and Public Policy,* 14 1995.

Johnson, E. N., K. B. Walker, and E. Westergaard, 'Supplier Concentration and Pricing of Audit Services in New Zealand', *Auditing: A Journal of Practice and Theory,* 14 1995.

Schwartz, K. and K. Menon, 'Auditor Switches by Failing Firms', *The Accounting Review*, 60 1985.

Sullivan, M., 'The Effect of the Big Six Accounting Firm Mergers on the Market for Audit Services', *Journal of Law and Economics,* October 2002.

Thavapalan, S., R. Moroney and R. Simnett, 'The effect of the PricewaterhouseCoopers merger on auditor concentration in Australia: A note', *Accounting and Finance,* 42 2002.

Williams, D. D., 'The Potential Determinants of Auditor Change', *Journal of Business Finance and Accounting,* 15 1988.

Wootton, C. W., S. D. Tonge and C. M. Wolk, 'Pre and Post Big 8 Mergers: Comparison of Auditor Concentration', *Accounting Horizons,* 8 1994.

Table 1: Descriptive statistics of market share
Panel A: Audit fees, 1987 to 1994

Audit fees in $ thousand by year

Auditor	year 1987	%	1988	%	1989	%	1990	%	1991	%	1992	%	1993	%	1994	%
Merging firms																
Deloitte Haskins & Sells	3,408	9.3%	3,920	9.6%	3,309	7.8%										
Touche Ross	1,608	4.4%	1,681	4.1%	3,653	8.6%										
Deloitte Touche Tohmatsu	*5,015*	*13.6%*	*5,601*	*13.7%*	*6,961*	*16.3%*	5,113	14.0%	3,864	13.5%	4,031	15.1%	3,570	15.7%	4,852	19.5%
Arthur Young	5,154	14.0%	5,765	14.1%	4,359	10.2%										
Ernst & Whinney	1,333	3.6%	975	2.4%	670	1.6%										
Ernst & Young	*6,486*	*17.6%*	*6,740*	*16.5%*	*5,028*	*11.8%*	6,090	16.6%	6,162	21.6%	6,269	23.5%	4,199	18.4%	4,596	18.5%
Coopers & Lybrand	5,270	14.3%	6,014	14.7%	5,011	11.8%	3,467	9.5%	4,490	15.7%	3,075	11.5%	3,142	13.8%	2,848	11.4%
Price Waterhouse	1,417	3.9%	2,229	5.5%	3,558	8.4%	3,152	8.6%	261	0.9%	667	2.5%	716	3.1%	2,170	8.7%
PricewaterhouseCoopers																
Non-merging firms																
Arthur Andersen													121	0.5%	250	1.0%
KPMG (or Peat Marwick)	10,862	29.6%	10,913	26.8%	10,500	24.7%	10,709	29.2%	7,715	27.0%	6,445	24.2%	5,621	24.7%	5,758	23.1%
Joint audits																
Coopers &Lybrand (PwC)/KPMG	2,634	7.2%	4,589	11.3%	5,055	11.9%	5,266	14.4%	5,432	19.0%	4,902	18.4%	4,413	19.4%	3,980	16.0%
Ernst & Whinney/Hogg Young Cathie	771	2.1%	959	2.4%	874	2.1%										
Ernst & Whinney/KPMG	1,963	5.3%	2,403	5.9%	3,784	8.9%										
Ernst & Young/Arthur Andersen																
Sub Total Big 8	34,419	93.6%	39,447	96.7%	40,771	95.7%	33,797	92.3%	27,925	97.7%	25,388	95.2%	21,781	95.7%	24,455	98.2%
Fringe Firms	2,339	6.4%	1,332	3.3%	1,814	4.3%	2,823	7.7%	664	2.3%	1,284	4.8%	984	4.3%	445	1.8%
Total audit fees $000	36,759	100.0%	40,779	100.0%	42,585	100.0%	36,620	100.0%	28,588	100.0%	26,672	100.0%	22,765	100.0%	24,899	100.0%
Concentration measures:																
CR4		74.3%		76.5%		71.5%		83.7%		96.8%		92.7%		92.0%		88.5%
Hirschman-Herfindahl Index		1789		1846		1906		2150		2615		2329		2331		2143

Panel B: Audit fees, 1995 to 2001

Audit fees in $ thousand by year

Auditor	1995	%	1996	%	1997	%	1998	%	1999	%	2000	%	2001	%
Merging firms														
Deloitte Haskins & Sells														
Touche Ross														
Deloitte Touche Tohmatsu	3,948	16.0%	2,603	11.4%	2,480	10.6%	2,656	10.2%	3,156	12.0%	2,660	12.5%	3,592	19.2%
Arthur Young														
Ernst & Whinney														
Ernst & Young	4,174	16.9%	2,020	8.8%	2,775	11.8%	2,666	10.3%	2,209	8.4%	2,098	9.9%	2,156	11.5%
Coopers & Lybrand	3,176	12.9%	2,910	12.7%	2,674	11.4%								
Price Waterhouse	2,115	8.6%	1,788	7.8%	1,415	6.0%								
PricewaterhouseCoopers	*5,291*	*21.5%*	*4,698*	*20.5%*	*4,089*	*17.4%*	4,426	17.0%	4,357	16.6%	4,302	20.3%	5,554	29.7%
Non-merging firms														
Arthur Andersen	272	1.1%	317	1.4%	505	2.1%	306	1.2%	642	2.4%	820	3.9%	938	5.0%
KPMG (or Peat Marwick)	6,200	25.2%	6,468	28.2%	5,957	25.4%	7,232	27.9%	7,112	27.1%	2,562	12.1%	3,497	18.7%
Joint audits														
Coopers &Lybrand (PwC)/KPMG	4,000	16.2%	4,000	17.5%	5,000	21.3%	6,000	23.1%	6,000	22.8%	6,000	28.3%		
Ernst & Whinney/Hogg Young Cathie														
Ernst & Whinney/KPMG														
Ernst & Young/Arthur Andersen			2,000	8.7%	2,000	8.5%	2,000	7.7%	2,000	7.6%	2,000	9.4%	2,000	10.7%
Sub Total Big 8	23,885	96.9%	22,107	96.5%	22,806	97.0%	25,285	97.4%	25,475	96.9%	20,442	96.3%	17,737	94.9%
Fringe Firms	753	3.1%	797	3.5%	693	3.0%	679	2.6%	811	3.1%	781	3.7%	958	5.1%
Total audit fees $000	24,638	100.0%	22,904	100.0%	23,499	100.0%	25,964	100.0%	26,286	100.0%	21,223	100.0%	18,695	100.0%
Concentration measures:														
CR4		79.8%		83.0%		84.6%		92.4%		90.7%		87.7%		84.5%
Hirschman-Herfindahl Index		1985		2224		2227		2700		2595		2314		1994

Notes:
CR4 ratios and Hirschman-Herfindahl indices calculated with joint audits allocated between joint auditors, and fringe firms taken individually.

Table 2: Switches and new jobs gained by merging and other firms

Panel A: Switches and new jobs gained by merging firms compared to other big firms and fringe firms

Period	*DTT*	*EY*	*PwC*	*Other Big 6*	*Fringe firms*	*Total*
Pre-merger 1985-88	39	49	55	37	28	208
Transitional 1989-93	10	10	11	10	8	49
Post-merger 1994-96	6	12	19	12	10	59
Subsequent 1997-2001	13	10	14	13	15	65
Total	68	81	99	72	61	381
Chi-squared						8.838
p						0.717

Panel B: firms classified as merging Big 6 firms (in 1989), growth Big 6 firms, stable Big 6 firms and fringe firms

	Merging	*Growth*	*Stable*	*Fringe*	
	DTT and EY	*PW and AA*	*Other Big 6*	*Fringe firms*	*Total*
Pre-merger 1985-88	88	13	79	28	208
Transitional 1989-93	20	8	13	8	49
Post-merger 1994-96	18	24	7	10	59
Subsequent 1997-2001	23	14	13	15	65
Total	149	59	112	61	381
Chi-squared					52.59
p					0.000

DTT: Deloitte Touche Tohmatsu and predecessor firms
EY: Ernst & Young and predecessor firms
PwC: PricewaterhouseCoopers and predecessor firms
PW: Price Waterhouse
AA: Arthur Andersen

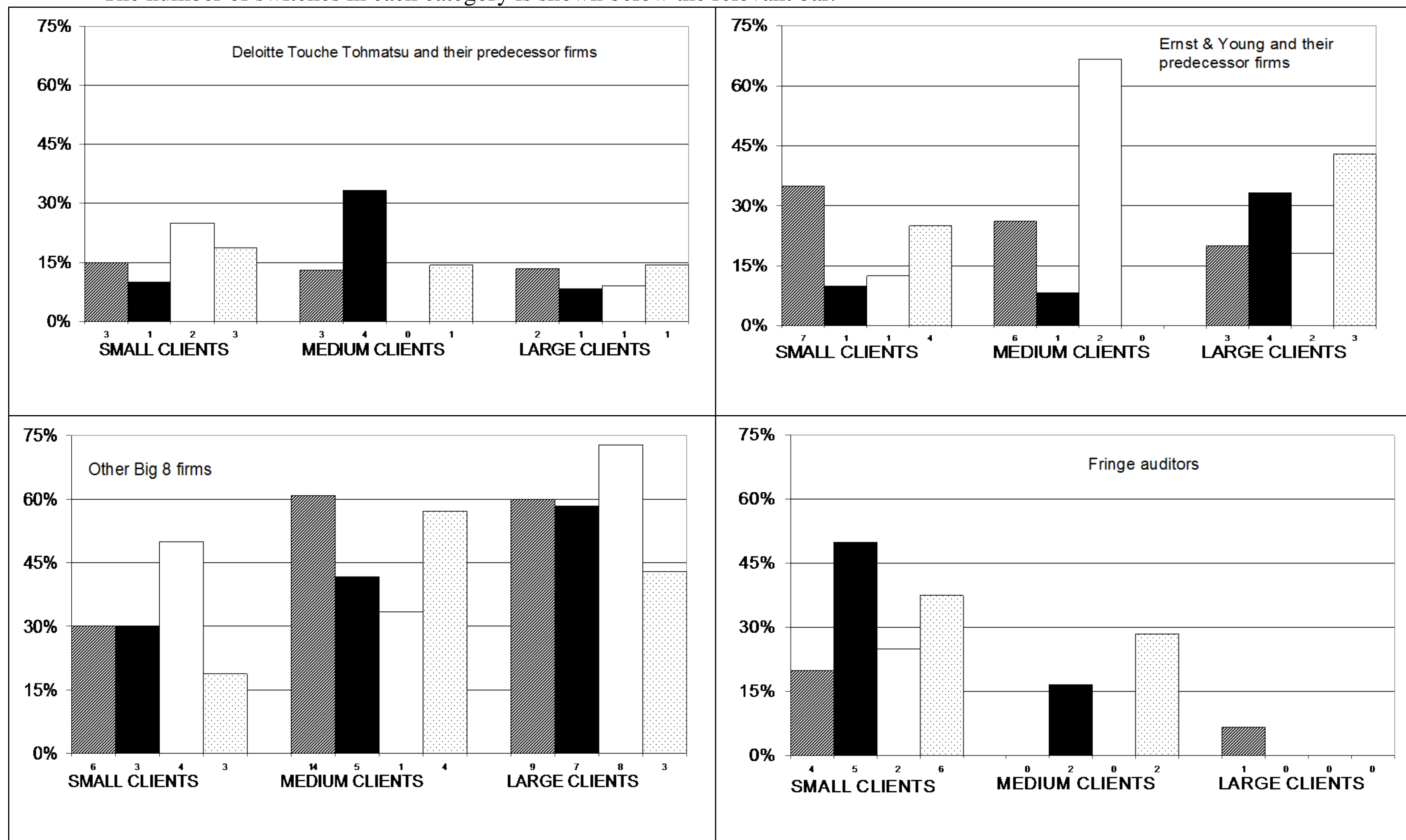
Table 3: Destinations of partners of firms after mergers

	Touche Ross	Deloitte Haskins Sells	Deloitte Touche Tohmatsu
Partners in 1989	83	66	149
Retiring	0	-8	-8
Moving to other Big 8:			
KPMG	-13		-13
C & L		-2	-2
EY	-1		-1
To spin-off firms	-24	-6	-30
To small firms	-10	-3	-13
To sole practice	-7		-7
Unable to trace after exit[5]	-14	-2	-16
Moving to industry	-1	-1	-2
New partners admitted			10
of those, leaving after merger			-1
Partners in 1993	13	44	66

	Ernst & Whinney	Arthur Young	Ernst & Young
Partners in 1989	45	85	130
Retiring	-5	-5	-10
Moving to other Big 8:			
KPMG	-2		-2
To spin-off firms	-1	-6	-7
To small firms	-6		-6
To sole practice	-3	-6	-9
Unable to trace after exit[5]	-6	-8	-14
Moving to industry	-1	-5	-6
New partners admitted			22
of those, leaving after merger			-4
Partners in 1993	21	55	94

[5] These partners no longer appear in the membership directories, and include those who retired without becoming retired members of the New Zealand Society of Accountants, left the country, or died.

Figure 1: Share of switching market for all clients by period and size categories. [6]
The number of switches in each category is shown below the relevant bar.



[6] This replicates Figures 2 – 5 in Sullivan 2002.

Appendix: the history and culture of merging firms.

1: Arthur Young and Ernst and Whinney

Arthur Young in New Zealand was the former New Zealand firm of Wilkinson Wilberfoss, formed from a merger of Wilberfoss & Co and Wilkinson Nankervis & Stewart in the 1980s. Wilberfoss & Co already had a strong nationally organized structure, with national profits shared among all of the New Zealand partners and affiliations with Arthur Young dating back to the 1960s. Wilkinson Nankervis and Stewart appeared to be absorbed into that national structure and firm culture quite readily. The national executive board had an element of control that all of the offices had to adhere to. The partners seemed to be proud of the national structure and regarded it as a sign of their professionalism. Around about the time of the 1989 merger with Ernst & Whinney, the Arthur Young partners suffered liability from an audit failure, RSL.

Ernst & Whinney in New Zealand had been the national firm of Hunt Duthie. In contrast to Arthur Young, Ernst & Whinney was a federation of partnerships in each city, which shared profits on a local basis. Partners had considerable freedom to go their own way. "The advantages were autonomy and being masters of our own destiny." Ernst & Whinney was not highly regarded technically by partners in other firms, and even themselves: "We weren't the brightest, we weren't the best, we didn't have the best brains. But we had good people and we had a lot of fun." Some of the partnerships had joined the national firm only recently and somewhat reluctantly (e.g., in Invercargill), and so some partners were not unhappy to leave Ernst & Young.

Comments by some Arthur Young partners show they regarded Ernst & Whinney as "a collection of sole practitioners who were not up to it" and as not having leaders of the profession. "There were people right through . . . there were staff from Ernst & Whinney who were just simply not up to it. Didn't meet our standards and couldn't sort of lift themselves. Likewise partners, who were stuck in a mould of a small local firm practitioner, and just simply either through their period in life couldn't sort of step up."

Ernst & Whinney partners commented that Arthur Young's was the dominant culture after the merger, so many Ernst & Whinney partners left; that it was more of a takeover by Arthur Young than a merger; and that Arthur Young was controlled by a small group – "they were ruthless, and if you didn't perform you were out." Partners were evaluated for profit-sharing purposes, and "the challenge was to not to beat the enemy in the market place but to beat one's partner."

After the merger, it became clear that Auckland and Wellington offices were now much more profitable than the other offices, and (under national profit-sharing) there was now pressure not to subsidize smaller, less well-performing offices. Eventually, this pressure led to local profit sharing being imposed on smaller offices, and some local offices of Ernst & Young left the firm (the chairman of the firm "went through like a bloody big knife, saying 'do as I say or get out'").

2. Deloitte Haskins & Sells and Touche Ross.

Deloitte Haskins and Sells had been formed in the early 1970s from a merger of firms in the main centres. It had not been through any major mergers since then.

Touche Ross had been created more recently, and was still not a highly unified firm. The basis of the firm had been McCulloch, Butler & Spence, a very strong regional firm based in small and large towns on the east coast of the North Island. Within its region, it was the most prestigious and largest firm. It specialized in farm and small business accounting, although it had one very large audit, Wattie Industries Limited. According to a partner, the firm had a very structured culture, "and knew it." Partners had all come up through the ranks, regarded themselves as fortunate to be partners in McCulloch, Butler and Spence and were very homogeneous and collegial. "It was something unique, something different, and you won't get it again. And unfortunately, we all agree, we ruined it." The firm merged in 1980 with Clarke Menzies, a firm with more expertise in auditing and long associations with Touche Ross. Clarke Menzies was a smaller firm, but based in the major business centres. Clarke Menzies partners considered themselves harder working than the partners in McCulloch, Butler and Spence, many of whom had farms as well as the accounting practice. After that, the new firm of McCulloch Menzies merged with other firms around New Zealand ("for some reason we had to be a national firm, for some reason which still escapes me") and adopted the name Touche Ross when this was permitted in 1983. Some of the former McCulloch, Butler and Spence partners resented adopting the Touche Ross name, regarding their old name as more prestigious among their clients. There were many cultural differences – Clarke Menzies had once been one of the "premium" audit firms in New Zealand but needed to grow larger; but merging with McCulloch, Butler and Spence brought in a disproportionate number of partners from that firm (49 McCulloch, Butler and Spence to 18 Clarke Menzies), and in addition there were partners from other small firms without a culture in common with either of those two firms.

The Deloitte Haskins & Sells/Touche Ross merger in New Zealand suffered because of international problems – the Touche Ross firm in Australia did not join the merged firm, but became part of KPMG, and the Deloitte firm in the United Kingdom also did not join, and merged with Coopers & Lybrand instead. As a result, the New Zealand office lost clients whose audits had been referred to them by parent companies audited by Touche Ross Australia or Deloitte Haskins & Sells UK. The firm suffered financially for several years as a result.

According to a former Deloitte partner:

> "In the case of the Touche Deloitte, they [the NZ partners] really had no option. If a merger is declared in New York or London, you've got to go with it. If you don't go with it you leave yourself out at your peril; because the reasons they didn't go were mainly personality clashes, I think . . . in the UK there was an argument between the senior Deloitte person and a senior Deloitte person in the US, as to who is going to be the chief, the top dog of all this; and the English guy

> lost out, so in a huff - this is the story we're fed, and it cuts a ring of truth about it - in a huff he said 'Right, well, I'm not going to play', and went off to Coopers.
>
> In Australia, Deloitte people were just a little too aggressive in their negotiations of how the Touche people would come into Australia, because Deloittes was regarded as a superior firm to Touche, shall we say, in Australia. They just played hardball too far, and despite intervention from the US to try to make it work, it didn't work. The Touche guy said 'No, we're not going under those conditions', and went off to KPMG.
>
> So that was a bit of a disaster for New Zealand because the Deloitte people when they went to Coopers, of course, we lost all the referred work in New Zealand, which had come previously from Deloitte. Touche did not have a huge amount of work in New Zealand, so the Touche people in New Zealand didn't bring a helluva lot to the party, and the Deloitte people lost all their referred work from the UK. Similarly, from Australia, the Touche people in New Zealand, of course, lost all their referred work from Australia, because that all went off to KPMG. So that was recognized by the US, and for a number of years, I think about seven years, there was a contribution to the New Zealand partnership from out of the US, just in recognition that the merger hadn't gone terribly well down this part of the world in terms of referred work.

Locally, the merger was also incomplete – according to interviewees, only 20 or so Touche Ross partners out of about 84 joined the merged firm at all, and all but three of those had departed by 2002.

According to a Deloitte partner, the culture of Touche Ross was "quite different from ours." The one firm that Deloitte did not want to merge with was Touche Ross. "We thought, 'well, we can absorb the Touche Ross people in New Zealand without any difficulty,' because Deloittes was clearly the dominant group. We were bigger. We had control of the management positions. So we didn't see it as a threat at all and we said, 'Yes, we'll do it, providing a whole bunch of these people don't come.'" Many provincial offices of Touche Ross did not become part of the merged firm.

The same partner observed that after any merger, there will be a "big cleaning out of duplication" so that the merged firm will be about two-thirds the size of its components. "Most of the people who get chopped out in a merger are either being perceived as past their use-by date . . . and then you normally get some fallout from partners who just happen to be unlucky, to be in the wrong place at the wrong time."

Some former Touche partners observed that they had decided the merger was not for them, and many of the offices became independent regional firms (one office, Gisborne, became part of KPMG).

A partner in another firm commented, "Touche Ross were keen to merge with us" [instead of Deloitte] but "they had declined so badly we would only have considered one or two of them."