OFFICE OF FAIR TRADING

Worked Principal Agreements

Report on the Worked Principal Agreement regime of the London Stock Exchange

May 1999

OFT 263

WORKED PRINCIPAL AGREEMENTS

CONTENTS

LIST OF ABBREVIATIONS

EU	European Union
the Exchange	the London Stock Exchange
FSA	Financial Services Authority
NMS (8 x NMS)	Normal Market Size (8 times Normal Market Size)
OFT	Office of Fair Trading
SETS	Stock Exchange Electronic Trading Service
WPA	Worked Principal Agreement

1 EXECUTIVE SUMMARY

Subject matter

1.1 I am making this report to the Chancellor of the Exchequer under section 122 of the Financial Services Act 1986. The subject of the report is the Worked Principal Agreement (WPA) regime of the London Stock Exchange (the Exchange).

1.2 The report fulfils a commitment I made to the Chancellor of the Exchequer on 17 July 1997 in my report on the Stock Exchange Electronic Trading Service (SETS) to review the effect of the WPA rules on competition once they had been in operation for a year.

1.3 In producing the current report, I reviewed the relevant economic literature, assessed data provided by the Exchange and consulted market participants.

1.4 Chapter 2 outlines the background to the review. Chapter 3 summarises the debate since 1995 between policy makers, regulators and academics on transparency issues and it looks at how the WPA regime fits into the debate. Chapter 4 discusses how the WPA regime has operated in practice, drawing on the data provided by the Exchange and the consultation exercise. Chapter 5 summarises the results of the consultation exercise. Finally, Chapter 6 outlines the findings of the review and gives a competition assessment and concluding comments.

Conclusions

1.5 On the basis of the available evidence I have concluded that, although I consider that the WPA regime distorts competition, it is not significantly anti-competitive in its effects.

1.6 I do consider, however, that transparency and the potential anti-competitive effect of delayed trade publication remain important policy issues. The WPA regime represents an improvement in transparency compared with the previous delayed trade publication regime. I have found no case for reducing the current levels of transparency for securities covered by the WPA regime. I will keep under review the significance of delayed publication regimes for trading in other securities under my jurisdiction.

1.7 I consider that increased linkages between the Exchange and other European stock exchanges or other cross-border trading initiatives represent an important opportunity for ensuring improved transparency across the European Union (EU).

2 BACKGROUND AND METHODOLOGY

2.1 In July 1997, I reported to the Chancellor of the Exchequer under section 122 of the Financial Services Act 1986 on the competition effects of the rules governing SETS. In that report, I concluded - with one caveat - that these rules did not restrict competition to any significant extent. The one caveat was the regime for WPAs. This, I argued, was potentially anti-competitive. It was not possible, however, to anticipate the significance of any anti-competitive effects without experience of the rules in operation. I therefore committed myself to reviewing the effect of the rules once they had been in operation for a year. This report is the output of that review.

Definition of the Worked Principal Agreement regime

2.2 A transaction under the WPA regime takes place in the following manner. An institutional investor, such as a pension fund wishing to buy or sell a large number of shares, contacts a broker dealer. At this point, the parties enter into a provisional agreement and agree the basic terms for the trade including limit price and size on which improvement must be sought by the broker dealer. This agreement, between the broker dealer acting as principal and the institutional investor, is known as a Worked Principal Agreement. The terms of this agreement are reported to the Exchange but are not published. After the parties have entered into the agreement, the broker dealer searches for counter parties with whom to offset the trade. If no counter parties have been found, the deal will still go ahead, with the broker dealer meeting the customer's entire requirement by adjusting his own holdings of the stock. It is a requirement of the regime that the broker dealer should attempt to improve on the terms of the original agreement.

2.3 The parties must execute and report the trade by either (a) the end of the trading day, or (b) when the broker dealer has found counter parties for 80% of the value of the trade, whichever is the earlier. If they so wish, the parties can carry out the trade earlier than either of these times. The regime is restricted to trades instigated by the customer that are larger than eight times the Normal Market Size (8 x NMS) for the security concerned. The rules governing WPAs are attached at Appendix A.

Origin of the Worked Prinicipal Agreement regime

2.4 The WPA regime was designed to replace the previous system of delayed trade publication. Since 1989, when publication delays were introduced, this has been an issue of some concern to me and my predecessors. Reports published by the OFT in 1990 and 1994 found that the rules then in force distorted competition to a significant extent. The reports were *Trade publication and price transparency on the International Stock Exchange*, OFT, April 1990, and *Trade publication rules of the London Stock Exchange*, OFT, November 1994. The reasoning behind the findings in these reports are discussed in Chapter 3 in the context of the wider debate on trade publication.

Methodology of research

2.5 When I examined the WPA rules in 1997, I found both similarities to and differences from the delayed publication regimes analysed in the above-mentioned reports. Given the similarities to regimes that had been found to be significantly anti-competitive, there was clearly cause for concern about these new rules. In view of the differences, with the previous regimes, however, and the lack of evidence of the rules in action, I did not consider there was a sufficiently strong case to warrant an adverse finding. Instead, I undertook to review the rules once more information on the practical effects of the regime became available.

2.6 The review had three elements. First, a survey was made of recent economic literature relevant to trade publication rules and WPAs.

2.7 Secondly, the data provided to me by the Exchange on how the WPA regime has operated in practice were assessed. In so doing, I focused on three key issues identified in my July1997 report to the Chancellor of the Exchequer. These were:

- the proportion of market activity that takes place under the WPA regime
- the time between the agreement to trade and its execution
- the extent to which the terms of the agreement differ from the terms of the eventual trade.

2.8 Thirdly, a consultation exercise was carried out to gather views of market participants. This provided some qualitative information on the operation of the rules to complement the Exchange's data, as well as participants' evaluation of the impact of the rules on competition and market efficiency.

3 TRANSPARENCY, TRADE PUBLICATION AND WORKED PRINCIPAL AGREEMENTS

3.1 The purpose of this section is to outline the issues raised by trade publication delays and WPAs together with the academic and policy debate on these subjects. I start with the analysis of publication delays by the OFT in November 1994, *Trade publication rules of the London Stock Exchange*. I then outline some of the research findings since that time. I conclude with a preliminary discussion of the extent to which the arguments about trade publication delays also apply to WPAs. Details of the relevant academic texts are given in Appendix B.

Concerns about publication delays

3.2 Large equity trades contain valuable information about the likely direction of the price of the security being traded. When a customer trades with a broker dealer, this information is shared between them. Delayed publication of large trades means this shared information is temporarily concealed from the rest of the market. Both the customer and the broker dealer involved can benefit from this delay. Other market participants are likely, however, to be made worse off as a result.

3.3 This has two main effects on competition. First, as outlined above, delayed publication for large transactions creates a cross subsidy from small transactions to those large transactions subject to the delay. Secondly, the information advantage held by those broker dealers already active in large trades can act as a barrier to new entry. This is because the rules create an informational advantage to incumbent broker dealers, which new entrants would have to overcome before being able to compete on equal terms.

3.4 Against this, it has been argued that the liquidity of markets can in some circumstances be improved by publication delays. In particular, it was argued that without delays of some type, large volume business would not be done. It was further suggested that delays could reduce market volatility as information comes to the market in a more orderly fashion. I did not accept this line of argument, but it has carried more weight with the Exchange, and to a more limited extent with the Financial Services Authority (FSA) (formerly known as the Securities and Investments Board) in its report *Regulations of the United Kingdom equity markets* (1995).

The debate on transparency since 1994

3.5 Theoretical and empirical research has continued on this issue since 1994. An excellent summary of this research and the issues it raises is provided by Ganley *et al* (1998). I do not intend to repeat that exercise here. Instead, I wish to flag up some of the main findings which specifically address issues raised in the OFT report of November 1994, *Trade publication rules of the London Stock Exchange*. These are:

- Large equity trades contain information and have permanent effects on share prices. This was confirmed empirically for UK equities by both Gemmill (1994) and Board and Sutcliffe (1995).

- Inventory management is also important in large trades. Broker dealers are concerned about the extent of their share holding in individual stocks, and actively manage inventories to reach a balance (see Board and Sutcliffe (1995), Oliver Wyman & Co (1997), Ganley *et al* (1998)). Broker dealers unwind unbalanced positions in anticipation of taking on a large trade as well as afterwards. This indicates that informal agreements to trade known as protected trades - similar to WPAs but not formally regulated - were an important feature of trading on the Exchange even while publication delays were in force.

- Increases in transparency between 1989 and 1997 have not significantly harmed liquidity (see Gemmill (1994), Board and Sutcliffe (1995, 1996). Conversely, it has proved difficult to find an effect of the trade publication regime on the efficiency of price formation (see Gemmill (1994)).

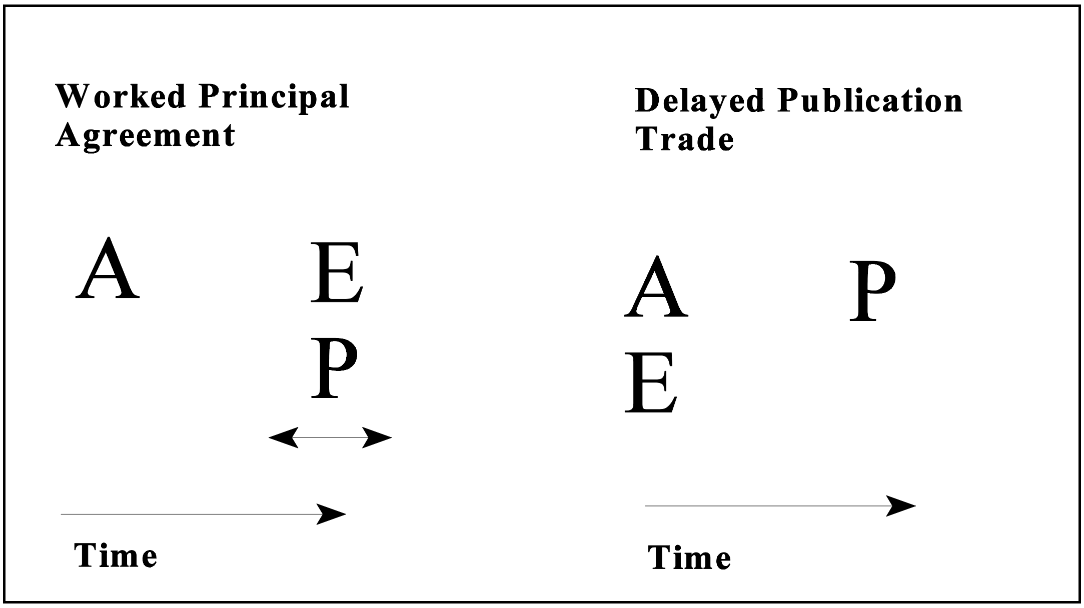
- Theory and experimental results suggest that trade publication delays will lead to gains for well-informed large traders, at the expense of small, less informed traders (see, for example, the work of Naik *et al* (1994) and Flood *et al* (1997)). This is partly supported by evidence shown, for example, by Hansch and Neuberger (1993) that medium and large trades were cross-subsidised by smaller trades. The reasons for this are, however, controversial: it could have been the result of trade publication regimes, but another explanation is the lack of an order matching system for smaller investors (Board and Sutcliffe (1996) and Oliver Wyman & Co (1997) provide further details of this argument).

Theoretical similarities and differences between Worked Principal Agreements and trades subject to delayed publication

3.6 There is not yet a well-developed theoretical and empirical literature on WPAs. This is likely to change as data becomes available on how the regime is working. A brief discussion of the similarities and differences in theory between a WPA regime and a system of delayed publication will help an understanding of the extent to which conclusions about delayed publication are likely to apply to a WPA regime.

3.7 Figure 1 provides a schematic illustration of a large trade carried out under each of the two regimes.

FIGURE 1: COMPARISON OF TRADES SUBJECT TO THE WPA RULES AND DELAYED PUBLICATION RULES



Key:

A	*Agreement to trade*	*Agreement is reached on some but not all of the terms of the imminent trade.*
E	*Execution of the trade*	*A contract is made for the exchange of money for ownership of the assets in question.*
P	*Publication of the trade*	*Details of the trade are published to other market participants and the public.*

Double-headed arrow	*This indicates a variable period of time.*
Single-headed arrow	*This indicates a fixed period of time.*

3.8 For most trades that take place on the Exchange, agreement to trade, execution of the trade and publication of the trade will occur simultaneously or subject to very short delays. For example, when an order is matched on the SETS order book, there is no prior agreement to trade before its execution and the trade is reported to the rest of the market immediately.

3.9 WPAs or delayed publication regimes allow the separation of these three events. As described in the previous chapter, the WPA regime allows for a delay between the agreement to trade and its execution. Subject to upper limits set by the Exchange in consultation with the FSA, the length of the delay is at the discretion of the customer and intermediary involved. This is illustrated by the double-headed arrow in the diagram. A particularly important feature to note, is that the firms involved can choose not to have a delay at all - that is, not to use the WPA regime. Once the trade is executed, it is reported and published immediately.

3.10 With a trade subject to delayed publication, there is no delay between the agreement to trade and the trade's execution[1]. Once the trade has been executed, there is a delay before the trade is published. The length of this delay is fixed by the Exchange in consultation with the FSA and the same delay applies to all eligible trades, whether or not the parties to the trade require it.

3.11 This comparison suggests three potentially important differences between the two types of regimes. The first difference is who chooses whether there should be a delay between agreement, execution and publication. In the case of delayed publication, this decision is taken by the Exchange alone. The Exchange, in consultation with the FSA, decides which trades should be eligible for a delay and then the publication of all eligible trades is delayed. With a WPA regime, the firms involved play a more direct role. The Exchange still specifies a set of eligibility criteria, but the customer and broker dealer can choose whether to use a WPA or to execute and publish immediately.

3.12 The second difference is who chooses the length of the delay. Again, with a delayed publication regime this is entirely the choice of the Exchange. With a WPA, the decision lies with the firms involved, subject to parameters set by the Exchange.

3.13 The third difference is in the nature of the information that is concealed from the market. In the case of a delayed publication regime, both the agreement to trade and the execution are concealed from the market. In the case of a WPA, only the agreement is concealed. It is not possible to evaluate how important this distinction is in practice, without evidence. Competition to attract large trades business may lead intermediaries to offer terms that in practice are very similar to the eventual trade. The more similar the terms of the agreement to the executed trade, the less difference there is in practice between the two regimes.

3.14 The analysis of differences combined with the OFT's previous assessment of delayed trade publication led me to identify three areas for investigation. They are described in greater depth in Chapter 4. The three areas are:

- The proportion of the market accounted for by WPAs - the proportion is jointly determined by the Exchange's thresholds and by the decisions of market participants. Competition distortions are less likely to be significant if the proportion is low.

- The length of time between agreement and execution - the average length of time between agreement and execution is an important factor. In general, we would expect distortions to competition and market efficiency to be smaller with a shorter delay.

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[1] It used to be possible to delay publication of 'protected trades' which had been agreed beforehand, but this loophole was closed for SETS securities in 1996 .

- The extent to which firms improve on the terms of the initial agreement - if there is little or no difference between the terms of the executed trade and the initial agreement, a WPA trade is in practice similar to a delayed publication trade. If there is a substantial difference between the two, the information content of the agreement is unlikely to be especially valuable.

4 THE OPERATION OF THE WORKED PRINCIPAL AGREEMENT REGIME IN PRACTICE

4.1 This chapter is about the evidence gathered in this review. The evidence comes from two sources. First, in response to a joint request from the OFT and the FSA, the Exchange provided some statistics on the operation of the WPA regime between January and June 1998. These have been extremely useful in reaching conclusions. Secondly, the consultation exercise provided some more qualitative information about institutions' and intermediaries' trading patterns. I considered commissioning a more comprehensive piece of work from academic consultants. While I believe that such research would be very valuable to the Exchange, the FSA and market participants, I was content that a sufficiently robust competition assessment could be provided without it.

4.2 The analysis focuses on the three issues outlined at the end of Chapter 3: the proportion of the market accounted for by WPAs, the delay between agreement and execution, and the extent to which firms improve on the terms of the original agreement.

The proportion of the market accounted for by Worked Principal Agreements

4.3 Tables 1 and 2 show the proportion of business by value accounted for by different trading methods. Business by value has been used as it gives a more accurate picture of trading activity. The equivalent figures by number of trades would show a lower proportion of WPA trades in the total market because WPA trades are larger on average than those which use other trading methods such as the order book. The data used was shares of business for all transactions in SETS securities and also for those transactions which are greater than 8 x NMS.

TABLE 1: TRADE TYPES AS A PERCENTAGE OF ALL BUSINESS BY VALUE

	January	February	March	April	May	June
Order book	30.0%	29.3%	26.3%	28.4%	30.6%	29.0%
'Ordinary trade'	51.7%	58.8%	60.1%	56.0%	56.3%	56.1%
Agency cross	3.0%	3.0%	3.8%	3.1%	2.3%	3.7%
WPAs	**7.5%**	**4.3%**	**3.7%**	**3.3%**	**4.5%**	**5.0%**
Portfolio business (inc worked)	7.9%	4.6%	6.0%	9.2%	6.4%	6.2%

TABLE 2: TRADE TYPES AS A PERCENTAGE OF BUSINESS LESS THAN 8 x NMS BY VALUE

	January	February	March	April	May	June
Order book	0.1%	0.2%	0.1%	0.0%	0.1%	0.0%
'Ordinary trade'	52.4%	71.7%	71.1%	59.3%	60.6%	58.2%
Agency cross	6.0%	5.9%	8.2%	8.2%	5.2%	9.2%
WPAs	**27.5%**	**17.2%**	**13.1%**	**16.3%**	**24.5%**	**27.2%**
Portfolio business (inc worked)	14.0%	5.0%	7.4%	16.1%	9.6%	5.4%

In Tables 1 and 2 not all percentages add up to 100 due to rounding.

4.4 Compared with other publication regimes over the past decade, the proportion of trading carried out subject to the WPA regime is low. For example, when publication delays were introduced for the more liquid stocks in 1989, 94 per cent of all trades on the London Stock Exchange were subject to a publication delay. Similarly, Oliver Wyman & Co found in 1997 that around one quarter of trades were either subject to a delay or were informally 'protected', and therefore similar to WPAs. Care has to be taken in comparing regimes as these figures relate to different baskets of shares. There are also difficulties in comparing the market size before and after the introduction of the order book. Nonetheless, I am confident that a greater proportion of business is executed and published immediately since the introduction of SETS and the WPA regime.

4.5 The LSE provided a similar analysis broken down according to trade size. It was clear that the relationship between trade size and the probability of using a WPA was not a clear one. In particular, the largest trades (that is, greater than 75 x NMS) were less likely, if anything, to be carried out as WPAs than smaller eligible trades. This was supported by the comments of some market participants.

4.6 A significant proportion (over three quarters) of trades above the 8 x NMS threshold are published and executed immediately. This is likely to be for two reasons. First, a number of trades above 8 x NMS are ineligible for the WPA regime. These include trades between broker dealers, agency crosses and trades instigated by the broker dealer rather than the customer. Secondly, as the WPA regime is optional, some customers may not wish to use a WPA, even if they are allowed to.

4.7 Those who took part in the consultation exercise were asked why they would use a WPA, as well as for examples of when they would use a different trading mechanism to execute a large transaction. It was found that intermediaries use a variety of strategies - some use WPAs for nearly all eligible trades while others aim to use agency crosses or the order book.

4.8 The main reasons advanced for using a WPA were that immediacy was important to the client, that there was not enough liquidity or depth on SETS and that it was a good way of making a start on a very large order.

4.9 The following situations were mentioned in which a WPA would not be used for part or all of a large trade:

- Programme trades (although these can also be transacted as WPAs)
- Immediate trades with broker dealers (for example, if there is no prospect of improvement)
- Agency crosses (not eligible)
- As part of the unwinding of a WPA (not eligible)
- Working the order patiently on an agency basis
- Book building and block trades
- Carrying out part of the order as a WPA and dealing the rest on an agency basis.

The length of the delay between agreement and execution

4.10 The Exchange also provided information on the time between the agreement to trade and its execution (‘working time’). Summary statistics for the first six months of 1998 are shown at Appendix C. The main inferences drawn from the data are:

- The average working time is between 2½ and 3½ hours.
- The time taken to work a trade can range from less than a minute to the entire trading day (the maximum allowed).
- There is no obvious difference between the time taken to work large trades and that taken to work small trades.

The improvement on the terms of the initial agreement

4.11 The Exchange also provided data on the extent to which the terms of the executed trade differ from the agreement to trade. Table 3 shows a breakdown of price and size improvement for a typical month, June 1998.

TABLE 3: PERCENTAGE OF TRADES SHOWING PRICE AND/OR SIZE IMPROVEMENT JUNE 1998

		Size			
		Better	Same	Worse	Total
Price	Better	11%	14%	0%	25%
	Same	23%	47%	1%	71%
	Worse	4%	0%	0%	4%
	Total	38%	61%	1%	100%

4.12 This table shows that in nearly half of the WPA trades that month, the terms of the WPA were identical to the terms of the finished trade. Customers received better prices than the original agreement in a quarter of cases, and traded a larger number of shares in just less than 40% of WPA trades. As a check on these numbers a small sample of the original data from the Exchange was analysed. This confirmed that only a small proportion of trades showed any price improvement over the original agreement.

5 RESULTS OF THE CONSULTATION EXERCISE

5.1 This chapter is about the views expressed by market participants in response to the OFT's consultation exercise. The questionnaire included a mixture of factual questions about individual participants' trading habits and some more general questions about the impact of the rules on the market for trading in SETS securities as a whole.

5.2 The OFT received 28 substantive replies out of a possible 58. Of these, 12 represented institutional investors (including two trade associations), 15 represented intermediaries (including one trade association), one reply came from a listed firm and one from a competing exchange. Of the intermediaries who replied, eight regularly offered WPAs - between twice and around 15 times a week. The remaining six did not usually risk their own capital and therefore tended to use other forms of trading such as SETS or agency crosses. Most of the institutional investors used the system, although one did not as it typically dealt in sizes below the 8 x NMS qualifying threshold.

5.3 The first question was about the impact of the WPA regime on liquidity. Opinions on this question divided into two camps. Those active in WPAs tended to argue that the regime resulted in tighter prices and a higher level of overall liquidity. The main mechanism by which they considered liquidity to be enhanced was through facilitating trades which would not otherwise happen and therefore increasing the total market volume. Those not active in WPAs tended to emphasize the view that WPAs take business away from SETS and that the reduction in transparency would itself harm liquidity.

5.4 Respondents were asked to compare the relative merits of WPAs with a delayed trade publication regime and also with immediate publication of trades. The comparisons between the current regime and its predecessor were instructive. Two main views were expressed on the relative merits of WPAs against delayed publication. Eleven respondents considered that there was in practice little difference between the two systems. The second view, held by14 respondents, was that WPAs were an improvement. Four respondents considered that it made matters worse. Table 4 shows the arguments made about the relative merits of these two regimes.

TABLE 4: THE RELATIVE MERITS OF WPAS AND DELAYED PUBLICATION

Arguments for the WPA regime	**Arguments for the previous delayed publication regime**
• There is scope for price improvement. • Trades are reported once they are largely completed. • It benefits clients as well as firms. • Firms are more prepared to commit capital. • Offsetting trades are published immediately. Information becomes available to market as soon as offsetting begins. • The delay is tailored to the circumstances of the trade.	• Some trades were published earlier with delayed publication. • The qualifying thresholds were lower. • It was less generous to suppliers of private risk capital than WPAs. This may encourage more use of the order book. • Fewer details of trading intentions were revealed to the Exchange. • It allowed for a five-day delay. • It was better for illiquid stocks.

5.5 Respondents' comparison of delayed with immediate publication split along the same lines as their views on liquidity. Those who were active in WPAs - particularly the intermediaries - felt its removal would be detrimental to market liquidity, the cost of trading and the competitive position of London. Broker dealers who mainly act as agents, the competing exchange and some investors felt that a move to full immediate publication would benefit liquidity and the order book.

5.6 Respondents were asked who benefited and who lost as a result of the WPA regime. Most identified either or both the parties to a WPA (that is, the client and the broker dealer involved) as gaining from the WPA rules. There was less consensus about whether third parties were better or worse off. Some intermediaries active in WPAs considered that the WPA rules benefited all market participants through enhanced liquidity. Some respondents identified two groups as losing from the system. These were investors who left orders on SETS oblivious to a WPA that was taking place 'upstairs', and broker dealers mainly trading as agents who missed out on this business. Several respondents considered that third parties were neither made better nor worse off by the WPA rules.

5.7 The process was explored by which market participants became aware that a WPA is taking place, and the competitive advantage that could be derived from this knowledge.

5.8 Some replied that other market participants only became aware of a WPA when the trade was reported. A number of institutional investors became aware of a WPA if they were approached to take part in 'unwinding' trades. Others noted that it was sometimes possible to infer the existence of a WPA by monitoring the behaviour of the intermediary involved or of market prices and volumes. Sometimes this information was diffused by word of mouth.

5.9 Two types of competitive advantage were discussed in the context of WPAs. The first advantage was held to accrue to the broker dealer in the WPA. Participation in a WPA gave them some extra knowledge of market conditions over other market participants for a while. This could allow them to share some of the benefits of this informational advantage with their client at the expense of less well-informed market participants, and to win subsequent ‘knock on’ business. Intermediaries active in WPAs downplayed this advantage, stressing that they were prevented by regulations and their customers from ‘front running’ (that is: using private information to the detriment of their client) and that they still had to close out the position created by the WPA. Secondly, it was noted that where intermediaries discover that a competitor is carrying out a WPA, they can use this knowledge to their advantage unencumbered by the above constraints.

5.10 The most common response to the question about the impact of the WPA rules on competition was that the WPA rules had no significant impact either way. Seven firms felt it distorted competition, while eight felt that competition was stimulated in some way by the rules. The means by which competition was considered to be affected are listed in Table 5.

TABLE 5: MARKET PARTICIPANTS' VIEWS ON THE COMPETITION EFFECTS OF WPAS

Adverse effects	Positive effects
● There is distortion while the trade is being worked. The intermediaries involved have a competitive advantage. ● Smaller institutions are not on a level playing field. ● Only a few larger houses have the capital for WPAs. ● The market for a stock tends to concentrate after a WPA, with the firm involved dominating for a while. ● The credibility of the order book is reduced. ● WPAs reduce the liquidity of the order book - they damage other exchanges as well as SETS.	● WPAs facilitate new entry without fear of 'spoiling' by dominant firms. ● There is fierce competition to attract WPAs. ● WPAs enhance the competitive position of London. ● WPAs permit more accurate pricing of capital. ● There can be earlier publication than under the former delayed trade publication regime. ● The obligation to improve results in benefits for the client. ● WPAs show that the order book can work for customers - through unwinding trades.

5.11 An open question about how the WPA regime might be improved revealed that several respondents were happy, or at least content, with the current arrangement and saw no real need for change. A range of suggestions were made by those who felt the regime could be improved. These ranged from reintroducing delays for larger trades to abolishing the regime entirely. The most popular incremental changes were:

- Increasing the minimum threshold
- Reducing the percentage that may be unwound before publication
- Introducing incentives to use the order book - for example, interaction or lower charges
- Changing the cut off point for unwinding from the end of the trading day to a fixed period after the trade.

5.12 Finally, we asked if there were other issues to be borne in mind. A few points were raised by more than one respondent. A number mentioned the impact of any rule change on the competitiveness of London as a financial centre. Another common theme was the performance of SETS and how the WPA regime fitted with the order book. A final point that was made concerned the need for a shift in trading culture in London towards more patient (and cheaper) trading and away from immediacy. According to this view, WPAs conceal from institutions the true cost of risk capital.

6. CONCLUSION

6.1 In this chapter I summarise my findings, draw together my conclusions on the impact on competition and make some concluding comments.

Summary of findings

6.2 The academic economic literature provides good support for the progressive reintroduction of post-trade transparency to the Exchange through the 1990s, advocated by the OFT and implemented by the Exchange. There has been no evidence of liquidity being harmed by the increase in post-trade transparency, and an improvement in the information available to customers. There is now a consensus that large equity trades convey and contain valuable information about price. The economic literature does not provide absolute support for immediate trade publication in all circumstances - in particular, there is little direct evidence of the practical impact of trade publication on the efficiency of the price formation process. Nonetheless, I consider that academic research tends, on balance, to support a general presumption in favour of transparency as beneficial to the working of fair and competitive markets.

6.3 The data supplied by the Exchange indicates that the introduction of the WPA regime has increased the volume of trades published and executed immediately. Significant and welcome increases in transparency have been achieved by the Exchange over the decade. A potentially less attractive feature of the WPA regime is the length of time that the information about the agreement to trade is concealed from the rest of the market. The average delay between agreement and execution is between 2 ½ and 3 ½ hours. The terms of the agreement to trade - in particular the price - are similar and often the same as the terms of the eventual trade. This suggests that information about an agreement will be similar to the information content of an actual trade. On balance, I consider the data supplied by the Exchange supports the view that the WPA regime has increased the level of post-trade transparency for SETS stocks. More data will become available to assess this issue more rigorously. I do not, however, expect this overall conclusion to change in the light of fuller information.

6.4 A range of views were expressed about the regime during the consultation. The WPA regime received strong support from broker dealers and large customers active in these trades and opposition from broker dealers who mainly trade as agents, from a competing exchange and from a smaller institution. The consultation also provided some interesting qualitative information about how WPAs operate in practice. New issues raised by consultees include interaction with SETS and competition between exchanges.

Competition conclusions

6.5 Under the Financial Services Act 1986, I have an obligation to report whether rules restrict, distort or prevent competition to a significant extent. There are two aspects to this: whether a rule or rules distort competition and whether the effect on competition is significant. I will consider each aspect in turn.

6.6 I consider that the WPA rules do distort competition between intermediaries in a similar way to delayed publication regimes - that is, through giving the broker dealers involved a significant information advantage over other market participants. The information contained in a WPA is likely to be similar in value or only slightly less valuable than that of a large trade under delayed publication. It is well established in the academic literature that large trades contain valuable information. The low levels of price and size improvement suggest that improvement on the original terms is not the main motive for entering into a WPA. The evidence on the delay between agreement and execution indicates that this information is concealed from the rest of the market for some time.

6.7 It is much harder to assess whether the impact of the WPA rules on competition is significant. One approach would be to argue that any such regime has a significant anti-competitive impact - that is, that this type of regime is *per se* anti-competitive in the same way as are price fixing agreements. This approach would only be justified if it had exceptionally strong backing from theoretical considerations or empirical research. Our survey of the relevant academic literature indicates that there is not a strong enough case for this *per se* approach.

6.8 My view is that the available evidence does not suggest a significant competition problem. The following factors were important in reaching this view:

- The proportion of the market accounted for by WPAs is small both in absolute terms and relative to previous regimes. WPAs account for less than 10% of total trading value and a quarter of the value of trades above 8 x NMS.

- The WPA regime appears better focused on meeting investors’ demands than the delayed publication regime which in many cases benefited the broker dealer more than the client. Under the WPA regime, delays only occur where investors require it.

- There is not a strong demand among market participants for its removal.

6.9 I am also conscious of the argument that the removal of the WPA regime would not of itself prevent institutional investors with privileged information from attempting to minimise the impact of their trading on the market. As long as information asymmetries are important in financial markets, there will always be some attempt to conceal trading intentions, be it through informal protection, patient trading or by putting together large agency crosses. To strive for 'perfect' transparency is an unobtainable goal. The WPA regime is a reasonable compromise short of this ideal.

6.10 I have therefore concluded that the WPA regime as it stands, although anti-competitive, is not significantly anti-competitive. This does not mean that I think a move back to previous regimes should be tolerated, or that I will not find delayed trade publication regimes to be significantly anti-competitive in other markets. In general, I am most likely to find regimes with the following features to be significantly anti-competitive:

- publication delays rather than WPAs
- a large proportion of the market subject to delays
- long delays of any sort
- a high information content of large trades.

6.11 I consider that more detailed research would produce benefits for the Exchange, its regulator and market participants. Of particular value would be further research into the parameters of the regime, and whether there is scope to increase the qualifying threshold or report after a shorter time.

6.12 Finally, I note that a number of respondents raised the competitive threat from other exchanges as a constraint on introducing further transparency. While I recognise that concern, I note that there are proposals for links or other cross-border trading initiatives between the Exchange and other European stock exchanges. I suggest that these provide an opportunity for ensuring improved transparency across the EU.

APPENDICES

A THE WORKED PRINCIPAL AGREEMENT RULES

The following is an extract from Chapter 2.2 of the Regulatory Guide to SETS, which gives the main trading rules describing the operation of WPAs. The rules which explain notifications, notification contents, transactions and the termination of a WPA are at paragraphs 4.71-4.74 of the same document.

“Worked principal agreements

4.70 Worked Principal Transactions

(a) Any transaction in an order book security of 8 times normal market size (NMS) or more may be treated as a worked principal agreement (6 times NMS before 20 July 1998).
(b) A **member firm** must attempt to obtain improvement on the stop loss or basis price or on the size specified in the **worked principal agreement.**
(c) Two **member firms** must not enter into a **worked principal agreement** with each other unless one **member firm** is either a **designated fund manager** or is acting on behalf of a designated fund manager or a **client**.

Guidance: What can be treated as a worked principal agreement

Any agreement to effect a transaction at some future time as principal, in either an individual SETS security in a size exceeding 8XNMS of the stock concerned or to transact a portfolio trade (as currently defined in the Stock Exchange rules) which includes SETS securities, will be eligible to be treated as a worked principal agreement ("WPA”).

A WPA is a commitment entered into by a member firm to carry out, at some point in the future, a transaction in a large block of shares in an order book security or a portfolio of 20 or more stocks which includes order book securities.

The member firm must be acting in a principal capacity and be trading for an investment client as an ultimate end-client rather than directly for another exchange intermediary (other than a designated fund manager which, for these purposes, is regarded as a client rather than an exchange intermediary) acting as principal.

The member firm must have agreed a stop loss or basis price or a basis for execution or have swapped limits for the proposed transaction or portfolio transaction with its counter party and also agreed the approximate quantity(ies) of shares involved. Price and/or size improvement **must** be offered.

In line with the rules for the block trade facility for non SETS securities, member firms should not add subsequent transactions to a WPA in order to increase its size. Nor should they aggregate transactions in individual securities to qualify for treatment under the WPA regime.

If a proposed transaction qualifies for treatment under the regime, there is no need to seek Exchange approval for use of the WPA regime for it. The proposed transaction will automatically be eligible for treatment as a WPA and the firm involved should simply submit a worked principal notification (see rule 4.73 for details) and may start working on offsetting the risk position which will be created by the transaction.

If a proposed transaction does not qualify for treatment under the WPA regime, the firm involved may discuss the possible application of the regime to it with Market Supervision on STX 33666. However, permission to apply the regime to such transactions will only be given in exceptional circumstances.

Worked principal agreements replace the use of protection and of block trades for transactions in SETS securities and portfolio transactions which include SETS securities."

B BIBLIOGRAPHY

The effects of trade transparency in the London Stock Exchange: a summary, John Board and Charles Sutcliffe, London School of Economics Financial Markets Group, Special Paper No 67, January 1995

The proof of the pudding: the effects of increased trade transparency in the London Stock Exchange, John Board and Charles Sutcliffe, London School of Economics Financial Markets Group, Special Paper No 95, September 1996

Post-trade transparency in multiple dealer financial markets, Mark Flood, Ronald Huisman, Kees Koedijk, Ronald Mahieu and Ailsa Röell, Limberg Institute of Financial Economics, Working Paper, March 1997

Transparency and the design of securities markets, Joe Ganley, Allison Holland, Victoria Saporta and Anne Vila, *Financial Stability Review,* Issue 4, Spring 1998

Transparency and liquidity: a study of large trades on the London Stock Exchange under different publication rules, Gordon Gemmill, OFT, Research Paper 7, November 1994

Block trading on the London Stock Exchange, Oliver Hansch and Anthony Neuberger London Business School Institute of Finance and Accounting, Working Paper 182, November 1993

Strategic trading by market makers on the London Stock Exchange, Oliver Hansch and Anthony Neuberger, London Business School Institute of Finance and Accounting, Working Paper 224, January 1996

Disclosure regulation in competitive dealership markets: analysis of the London Stock Exchange, Narayan Naik, Anthony Neuberger and S Viswanathan London Business School Institute of Finance and Accounting, Working Paper 193, July 1994

Letter to the Chancellor of the Exchequer by the Director General of Fair Trading under the Financial Services Act 1986 on the introduction of an order driven trading service by the London Stock Exchange, OFT, July 1997

Trade publication and price transparency on the International Stock Exchange: a report by the Director General of Fair Trading to the Secretary of State for Trade and Industry, OFT, April 1990

Trade publication rules of the London Stock Exchange: a report to the Chancellor of the Exchequer by the Director General of Fair Trading under the Financial Services Act 1986, OFT, November 1994

London Stock Exchange: review of block trading and publication requirements for UK stocks, Oliver Wyman & Co, April 1997

Regulation of the United Kingdom equity markets, Securities and Investments Board November 1995

London Stock Exchange - Worked Principal Agreements - Working Times by NMS Band

		Jan-98	**Feb-98**	**Mar-98**	**Apr-98**	**May-98**	**Jun-98**
NMS Band	**Data**	**Time**	**Time**	**Time**	**Time**	**Time**	**Time**
8-10	Average of Working Time	03:12:08	02:53:57	03:02:56	03:26:57	03:29:09	03:19:58
	Max of Working Time	08:06:24	07:35:13	07:41:55	07:50:17	07:39:09	07:29:36
	Min of Working time	00:04:00	00:00:01	00:00:00	00:02:59	00:01:01	00:00:00
10-15	Average of Working Time	02:59:35	03:05:22	02:32:05	02:49:00	02:59:20	03:16:13
	Max of Working Time	07:56:00	07:52:40	07:47:27	07:37:59	07:37:58	07:32:03
	Min of Working time	00:00:00	00:00:00	00:00:00	00:03:17	00:00:00	00:00:00
15-25	Average of Working Time	02:49:43	02:59:48	02:53:47	02:57:51	02:53:55	03:08:56
	Max of Working Time	07:34:01	07:35:23	07:22:07	07:08:00	07:17:23	07:25:01
	Min of Working time	00:06:00	00:02:32	00:03:15	00:06:44	00:00:00	00:00:00
25-50	Average of Working Time	02:41:59	02:55:03	03:29:56	03:19:35	03:52:13	03:27:56
	Max of Working Time	07:42:34	07:10:30	07:36:17	06:28:37	07:37:07	06:46:58
	Min of Working time	00:00:00	00:08:00	00:00:09	00:19:08	00:21:53	00:04:27
50-75	Average of Working Time	03:25:50	02:18:58	03:31:09	05:20:01	02:29:00	05:37:28
	Max of Working Time	06:36:00	07:07:01	05:54:00	06:29:57	06:53:10	05:37:28
	Min of Working time	00:01:27	00:05:00	01:16:00	03:28:41	00:42:37	05:37:28
75+	Average of Working Time	02:13:34	05:03:33	03:13:27	00:09:49	02:07:33	03:33:37
	Max of Working Time	06:31:00	06:38:05	06:02:07	00:09:49	06:20:01	08:41:00
	Min of Working time	00:02:05	03:29:00	01:04:00	00:09:49	00:23:45	00:20:22

D RESPONDENTS TO THE OFT CONSULTATION EXERCISE

Association of British Insurers
Association of Investment Trust Companies
Barclays Global Investors
Barclays Stockbrokers Ltd
BAA plc
Cazenove Fund Management Ltd
Cazenove & Co Ltd
Church Commissioners
Credit Lyonnais Securities
Credit Suisse First Boston Equities Ltd
Goldman Sachs Equity Securities (UK)
Greig Middleton & Co
Guardian Royal Exchange plc
HSBC Securities
Instinet UK Ltd
Institutional Fund Managers Association
Kleinwort Benson Investment Management Ltd
London Investment Banking Association
M & G Group
Mercury Asset Management
Merrill Lynch International
Morgan Stanley Securities Ltd
Salomon Brothers UK Equity Ltd
Schroder Investment Management UK Ltd
Schroder Securities Ltd
Tradepoint Financial Network plc
Threadneedle Investment Managers Ltd
Warburg Dillon Read