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Underwriting Relationships and Analyst Independence in Europe

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Equity Underwriting Relationships and Analyst Independence in Europe

Abstract

This paper examines the accuracy of security analysts' earnings forecasts and stock recommendations for firms in 13 European countries. We document at least three key findings. First, we find strong evidence that lead and co-lead underwriter analysts' earnings estimates and stock recommendations are significantly more optimistic than those provided by unaffiliated analysts. Second, we find that lead and co-lead underwriter analysts' earnings forecast and stock recommendations are significantly more optimistic for underwriter stocks than for those they provide for other stocks. Third, we also find evidence that these biases found within earnings forecasts and stock recommendations are not driven by one particular country. In short, these findings suggest that affiliated analysts are more optimistic perhaps to maintain investment banking relations.

JEL classification: G12, G14

Keywords: analyst forecasts, stock recommendations, IPOs, underwriter

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Equity Underwriting Relationships and Analyst Independence in Europe

I. Introduction

Analysts are employed by a range of firms such as investment banks and brokerage firms to provide objective and independent research information. This information can take the form of company specific reports, industry reports, company earnings forecasts, company growth prospects and issuing recommendations about whether to buy, sell or hold a particular stock. There is now a body of literature that shows that both professional and non-professional investors react to management earning forecasts (Han and Tan, 2007; Venkataraman et al., 2008). They are shown to influence analysts' forecasts (Baginski and Hassel, 1990) and affect stock prices (Pownall et al., 1993). Firms offering these services can be split into underwriters, firms that are involved in the floating of the initial public offering, and non-underwriters, firms that are not.

These firms offer a range of financial services. They receive their income from activities such as corporate finance advice, on such issues as IPOs and merger advice, and brokerage services. A potential for conflict of interest arises because of underwriting relationships (Michaely and Womack, 1999; Bradshaw et al., 2003). Some analysts work for firms that underwrite and/or own the securities of the firms the analysts follow. Moreover, analysts may own stocks in the firms they follow. As a result, there may be pressure on the analyst to provide positive and optimistic assessments of a firm's

performance. In addition, it may be that the choice of underwriter is partly determined by the degree to which their analysts provide positive forecasts and stock recommendations (McNicols and O'Brien, 1997).

Additional evidence suggests that analysts may not be as independent as expected and that the conflict of interests is a significant issue for the clients of firms that offer research. This has been identified in the US, particularly in relation to the dot com share collapse in the late 1990s. For example, Siconolfi (1992) reports that Morgan Stanley pressurised analysts to change negative research reports to more positive ones. Michaely and Womack (1999) surveyed investment professionals and found that the majority believed that a conflict of interest was present and that the pattern of recommendations given by the professionals was not independent and objective. Further, Hong and Kubik (2003) find that analyst optimism is an important determinant of career progression, particularly in relation to moving from a low status brokerage house to a high status house. Finally, in 2003, Elliott Spitzer reached a settlement with the ten largest securities firms following allegations of a conflict of interest between their investment banking considerations and their analysts' research reports. The settlement was a tacit acceptance that the research undertaken by analysts employed by brokerage firms that had an investment bank was not independent. The consequence of the Spitzer settlement was that investment banks had to use independent analysts when undertaking analysis for their clients. This is an effective admission that independent analysts will produce less biased research than that produced by the analysts in the investment banks.

The importance of the conflict of interest as suggested by Spitzer may not be limited to a US environment in that many of these analysts work for international brokers. Thus a primary contribution of this paper is that to our knowledge there is no empirical research that examines the extent to which forecast error and stock recommendations by affiliated analysts differ from those of unaffiliated analysts within Europe. Different countries have different requirements in areas such as the level of financial disclosure, for example in relation to accounting practices, and the quality and quantity of data (Higgins, 1998). He finds that analysts produced more accurate and less optimistic forecasts in countries that required more disclosure relative to countries that required less disclosure.

However, disclosure is only one element of the much broader issue of the rights attached to the holders of equity and debt. These rights are determined by a country's legal system. As La Porta et al. (1998) argue, legal systems can be separated into two broad categories, common law and civil law. They find that common law countries, for example, in the UK, have stronger legal protection for investors whereas civil law countries, for example Germany, have weaker protection. The legal environment holds an essential position with respect to a firm's corporate governance. Shleifer and Vishny (1997) argue that legal protection systems are fundamental if outside investors are to have confidence in a firm's financial reporting. Moreover, Skinner (1994) asserts that the level of corporate legal liability to shareholders can influence disclosure. For example, shareholders may pursue legal action against

corporations if negative earnings surprises trigger large stock price declines. Thus, to reduce potential legal liability corporations are motivated to voluntarily disclose information, whether good or bad. This will normally result in a more accurate stock price.

However, this framework depends on a properly functioning legal system that is designed to protect shareholders. If a legal system offers less protection to shareholders, management may have less incentive to disclose bad information. Rogers and Buskirk (2008) suggest that the litigation process may encourage firms to reduce the provision of disclosures for which they may later be held accountable. Consistent with La Porta et al. (1998), this indicates that a civil law system will produce more optimistic forecasts as bad news may not be disclosed. In contrast, forecasts under common law systems should include good and bad news resulting in less optimistic forecasts. Thus given that US and UK law have similar common law foundations, UK results should be similar to US evidence but forecasts should be less optimistic than those for other European countries. Therefore a second contribution of the paper is to assess the impact that different legal systems have on the degree of optimism and pessimism of analysts' forecasts.

The paper is structured as follows. The next section discusses the relevant literature and sets out the hypotheses. Section three describes the sample and data definitions. Section four presents the results and finally, some conclusions are drawn.

II. Prior Research

The literature dealing with the accuracy of analysts' forecasts may be separated into two main categories, studies dealing with forecasts that do not directly address the independence of analysts and, more recently, studies that do.

In the first category are a number of studies that do not deal with independence. For example, O'Brien (1990) and Butler and Lang (1991) investigated the forecasts of individual analysts and found no evidence of differences in the accuracy of analysts' forecasts. Brown (2001) finds that an individual analyst's forecast error is correlated with the error in the previous period. Chan et al. (2004) find that analysts' forecast accuracy is consistent over time, a finding that applied to both the most and least accurate analysts.

Most of the studies in this category, however, deal implicitly with analyst independence. Their common thread is that they link forecasts either to gain the confidence of the management of the firm whose earnings are being forecast or to improve their job prospects. The former is important for a number of reasons. First, it may give access to private information which can only be gained by close contact with the forecasts firm's management. Second, the reputation for accurate forecasts may generate more investment business for the forecaster's firm and so good relations with management has potential income-generating consequences. Francis and Philbrick (1993) find that firms often produce an optimistic forecast after making a sell

recommendation, something clearly aimed at trying to build a more positive relationship with the firm.

Olsen (1996) argues that the optimism of analyst forecasts is caused by analyst herding. Chopra (1998) reports that analysts forecasts tend to be overly optimistic but that the over-optimism declines during the year. They also note that over the period 1993-1998, forecasts became more accurate. Das et al. (1998) illustrate the importance of private information by showing that analysts focus on accuracy rather than bias in order to gain access to managers. Lim (2001) identifies bias amongst analysts who work for smaller firms and who are less experienced. These characteristics make it harder for these analysts to gain access to private information. Bias becomes a means to gain such information as a reward for the positive signals sent by the forecasts. Interestingly, Krigman et al. (2001) find that the reason managers switch underwriters is to move to a more prestigious underwriter and to increase analyst coverage.

Hong and Kubik (2003) report that analysts are rewarded for the accuracy of their forecasts. They find that accurate forecasters are more likely to move up the hierarchy of analyst firms and poorer forecasters are more likely to move down. Career progression is therefore influenced by forecast accuracy.

The second strand of literature deals explicitly with the issue of analyst independence. Clayman and Schwartz (1994) argue that the need to maintain access to management makes it more difficult for analysts to make

pessimistic forecasts about a firm. This is exacerbated when the analysts work for investment banks. Dugar and Nathan (1995) found that analysts were more optimistic if there had been a long term investment bank-client relationship relative to analysts' forecasts where there was no investment banking link. Differentiating between affiliated analysts, those employed by investment banks that were either the lead underwriter or the co-underwriter of a seasoned equity issue, and non-affiliated underwriters, Lin and McNichols (1998) found no evidence of a conflict of interest in relation to earnings forecasts. However, they found that affiliated analysts produced more favourable growth forecasts suggesting a difference in the attitude towards independence depending on the type of forecast being made. In terms of analyst recommendations, Michaely and Womack (1999) also find evidence of a conflict of interest. They find that underwriter analysts' buy recommendations perform worse than buy recommendation of non-affiliated analysts.

Boni and Womack (2002) surveyed analysts and found a general scepticism about the ability to undertake truly independent research, a finding which raises interesting questions about the perspectives of analysts. Hong and Kubick (2003) find some evidence of a conflict of interest because analysts covering underwritten stocks tended to be judged less on their accuracy than on their optimism. They also found that analyst rewards were driven more by optimism than accuracy during the stock market boom of the late 1990s.

Chan et al. (2003) analysed earnings surprises and found that analysts forecasts are influenced by desire to win investment banking clients, particularly those clients defined as growth firms. They were more likely to experience non-negative surprises than value firms. Growth firms are more likely to raise new capital or be involved in acquisitions and so are potential sources of lucrative new business for investment banking firms. Where the firm does less well than the forecast, avoiding negative surprises pressurises the analyst into making conservative forecasts. A similar finding was reported by Cowan et al. (2003) who found that investment bank analysts were less optimistic than analysts from brokerage firms that were not underwriters. The lack of optimism could reflect a conflict of interest because lower forecasts are easier to achieve and so imply better firm performance.

Jacob et al. (2003) differentiate between independent forecasters, non-independent forecasters, and investment banks. They find that the forecasts of analysts at investment banks are more accurate and less optimistic than the forecasts of independent analysts. One reason for the poorer independent analysts' forecasts could be that these firms tend to be smaller and so may be less able to attract the best analysts. For example, they may be unable to match the salaries offered by the larger investment banks. It is also probable the independent researchers will have less access to valuable information and so will be less able to provide as accurate forecasts.

Clarke et al. (2004) split analysts into those at investment banks, pure brokerages and independent research firms. They find no evidence of a

conflict of interest and indeed show that analysts in large investment banks produce more accurate earnings forecasts than analysts at either small investment banks or large independent firms. They also find that moving to a larger firm has no impact on the degree of optimism shown by the analyst at the previous firm. The important conclusion to be drawn from this study is that independent analysts do not offer better and more unbiased forecasts.

The literature shows that the US evidence is mixed. However, the balance of the evidence suggests that a conflict of interest does occur between analysts and a client, or potential client. This potential conflict will be analysed within a European context.

III. Methodology

We gather data from two large data sources: I/B/E/S and SDC on 13 European countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom. The Institutional Brokers Estimate System (I/B/E/S) reports earnings forecasts and stock recommendations for equity analysts. The Securities Data Corporation (SDC) provides data on equity offerings, in particular, IPOs and Follow-ons. SDC also provides information on lead and co-lead underwriters of the IPOs and Follow-ons from which we determine analysts affiliation. The time period of our analysis is January 1988 to June 2005 for earnings estimates and January 1994 to June 2005 for analyst recommendations. I/B/E/S began the reporting of analyst recommendations for European firms in January 1994.

With respect to investment banking conflicts, we classify analysts within two activity groups: sell-side and independent. If an analyst offers earnings estimates and/or recommendations for a firm where their employer was a lead or co-lead underwriter, they are labelled as a sell-side analyst. On the other hand, if an analyst provides earnings estimates and/or recommendations for a firm where their employer was not a lead or co-lead underwriter, they are labelled as independent. Please note that our measure of independence implies free from any conflict of interest resulting from an affiliation with a lead or co-lead underwriter.

We examine the effect of analyst independence on forecast error and stock recommendations. The most commonly used measure of forecast accuracy is forecast error, which measures the difference between forecast earnings and actual firm earnings. Following Hong and Kubik (2003), we scale our measure of forecast error by the price of the stock at the time of an earnings announcement.

$$\text{Forecast Error} = (F_{ijt} - A_{jt}) / P_t$$

$$FE_{i,j,t} = (F_{i,j,t} - A_{j,t}) / P_j$$

where $FE_{i,j,t}$ is the forecast error of a analyst i for firm j at time t . $F_{i,j,t}$ is analyst i 's forecast EPS for firm j at time t . $A_{j,t}$ is firm j 's actual EPS at time t and P_j is firm j 's share price. The bias shows the extent to which forecasts are optimistic or pessimistic. A positive error illustrates optimism and a negative one shows pessimism.

Analyst stock recommendations, these are based on a five point scale: 1 = strong buy, 2 = buy, 3 = hold, 4 = sell, and 5 = strong sell. More positive recommendations are therefore associated with low mean values and the more pessimistic the recommendations, the higher the mean values.

We merge the I/B/E/S and SDC databases by three matching variables: underwriter name, company name, and date. Since these matching variables are not exact, we use programming syntax to create synthetic variables for merging the two databases.

The sample is split into four legal systems, English law, French law, German law and Scandinavian law (La Porta et al., 1998). We use the La Porta categories; English origin common law – UK; French origin civil law – France, Belgium, Italy, Spain and the Netherlands; German origin civil law – Germany, Austria and Switzerland; Scandinavian origin civil law – Denmark, Finland, Norway and Sweden. The UK system offers the highest levels of protection and the French system the weakest protection with the German and Scandinavian between them and the UK system (La Porta et al., 1998).

IV. Results

Insert Table I

The sample's descriptive statistics are given in Table I. In Panel A, we present analyst-employer information. For underwriters and non-underwriters, the figures show an increase in the number of analysts and the number of firms

during the 1990s. The number of underwriting and non-underwriting firms peak in 2000 but the number of analysts increases until 2002. The number of estimates increases until 2004 which suggests increasing analysts' productivity. Table 1 shows that non-underwriting firms employ more analysts and are greater in number. They also employ more analysts and produce more estimates.

Panel B reports the analysts' mean characteristics. With the exception of 2005, underwriting firms increased their mean number of analysts in each of the years. By 2004, there had been a 4.8-fold increase in the mean number of analysts employed by underwriters, from 2.45 to 11.80. The mean estimates per analyst shows that there was a fall in the output of underwriter analysts from 1990 until 1995. The number fell from 3.92 to 3.54. However since then the figure has risen to 8.06 with underwriter analysts now being as productive as they were in the early 1990s. Therefore over the period, there was a 105% increase in the mean number of estimates by each analyst.

There has been an increase over the period in the number of mean estimates per analyst per firm, from 2.09 to 5.79. However, the figure had fallen between 1990 and 1995 but has since risen and by the end of the period analysts had increased their estimates by 2.77 fold. In terms of analyst coverage, there has been a general decline in the number of firms followed by underwriter analysts. The mean number has fallen from 1.90 to 1.22 showing that they cover, on average, 64% of the number of firms covered in 1988. The decline in the number of firms implies that more time can be spent analysing fewer

firms. It may therefore be expected that the underwriter forecasts would become more accurate.

Non-underwriting firms illustrate similar characteristics. They also experienced a 4-fold increase in the mean number of analysts per firm from 8.10 in 1988 to 35.81 2004. The number of mean estimates per analyst increased from 8.76 to 15.12, a 172% increase, slightly lower than the underwriters' figure. The number of estimates per analyst per firm increased from 3.07 to 5.59, a 1.82 fold increase, the increase being higher than for underwriter analysts. Non-underwriter firms also experienced a reduction in the mean number of firms covered by each analyst, but the decline was smaller than for underwriter firms.

Panel C gives details of analyst characteristics by country. We find that the countries with the largest number of firms are Germany, France and the UK, each with over one hundred firms. The countries with the most distinct underwriters are Germany, France and the Netherlands. The countries with the highest number of analysts are France, Germany and the UK. The countries producing the most total estimates are France, Germany and the UK. Firms in the Netherlands, Spain and Switzerland have the largest number of analysts per firm. The lowest mean forecast errors are found in the Netherlands, Italy and the UK. The most optimistic forecasts are produced by analysts in Spain, Belgium and Norway. This may be explained through the legal systems which will be discussed later.

Panel D breaks the underwriters and non-underwriters recommendations down by recommendation class. We expect that if underwriters were providing independently determined recommendations, there would be no difference between the various recommendation classes. However, we find that underwriters provide more buy and strong buy recommendations than independent analysts. For underwriters, 23.7% of their recommendations were 'strong buy' and 30.3% were 'buy'. In contrast, non-underwriters had 21.1% 'strong buy' recommendations and 29.4% 'buy' recommendations. Combining the two categories, shows that underwriters had 53.7% of their forecasts as at least 'buy' whereas for non-underwriters, the figure is 50.5%, 3.2% points lower.

Although there is no difference in the percentage of 'hold' recommendations, both have 33.1% in that category, non-underwriters produce more 'sell' recommendation, In particular their 'strong sell' is 5.4% against 2.5%. Overall, the results therefore indicate that underwriters are more optimistic in their recommendations are less likely to issue 'sell' recommendations for stock they have underwritten.

Insert Table II

Table II develops the analysis by presenting evidence about analysts' recommendations by year, panel A, and by country, Panel B. Panel A shows a clear reduction in the percentage of strong buy recommendations, from 36.2% of total recommendations in 1994 to only 15.2% in 2005. The percentage fell each year. The percentage buy figure shows an almost complete reversal with the figure rising from 13.4% in 1994 to 32.6% in 2005. This suggests that

analysts were becoming less optimistic in their recommendations and were opting for a less risky strategy of buy rather than strong buy. The relationship cannot be explained by the market slowdown in the late 1990s because it did not affect the upward trend for buy recommendations and the downward movement in strong buy recommendations.

Hold recommendations fall slightly from 38.6% in 1994 to 32.6% in 2005 which further indicates a slight reduction in confidence in the stocks. This is also shown by the sell recommendations where an increase occurs from 4.3% in 1995 to 13.9% in 2005. However, strong sells become less common, falling from 7.6% to 4.8%. If we combine the buy and sell recommendations, we find a fall in buy recommendations from 49.6% to 47.8% and a rise in sell recommendations from 11.95 to 18.7%. Therefore, Panel A shows clear evidence that analysts were becoming less optimistic, or more cautious, in their recommendations during the period under analysis.

Panel B breaks down the recommendations by country. Seven of the thirteen countries has strong buy recommendations of less than 20% and six had greater. The country with the highest percentage is France with 26.7% and the lowest is Finland with 16.1%. The Scandinavian countries, as a group, have the least strong buy recommendations. The country with the highest buy recommendations is Italy, 34.2% followed by France and Finland. The lowest figures are found in Belgium and the Netherlands.

There is also a large spread in the hold recommendations ranging from 29.8% in Spain to 45.4% in Belgium. The Netherlands is the only other country with a figure in excess of 40%. The Scandinavian countries tend to produce the highest percentage of sell recommendations, the highest being Sweden with 16.0%. The highest strong sell figure is reported for Germany, 8.0%.

The country with the highest combined percentage of buy recommendations is France, 60.2%, and highest combined sell recommendations is Sweden, 21.1%. One explanation for the differences is analysed later in the paper by La Porta et al. (1998) where the categorisation of countries into types of legal system is investigated.

Insert table III

Two sets of results are reported in Table III. First, it compares the underwriting analyst mean forecast error (FE) to the mean FE for all other analysts following the underwriter stocks. Second, it compares the mean analysts' recommendations to the mean recommendation for all other analysts following the same underwriter stocks.

Clayman and Schwartz (1994) find that optimism is an important consideration, particularly when gaining, or maintaining, access to management is important. Hong and Kubik (2003) also found that optimism was regarded as important. We therefore expect that underwriters will be more optimistic in their forecasts and recommendations than non-underwriter analysts.

In terms of forecast error, we find that the mean underwriter forecast error is significantly higher than the error for other analysts following the same stocks, 0.1513 and 0.1438 respectively. The difference is significant at the 10% level. This indicates that the underwriters were more optimistic than the other analysts that followed the underwriters' stocks. We also find that, for underwriters involved in the IPO, their mean forecast error is significantly higher than the mean error for other analysts following the same stocks, 0.2067 and 0.1438. The difference is significant at the 1% level. However, we find that follow-on underwriters have significantly lower forecast errors than other analysts, 0.1293 and 0.1438 respectively, the result being significant at 1%. This implies that these underwriters are less optimistic in their forecasts. However, this may not be a negative phenomenon. It may be that access to better information results in a more accurate forecast by the follow-on analysts. In addition they may also not wish to lay the management of these firms open to the perception that they are underperforming, hence they may be producing more conservative forecasts

We also find evidence that there are differences in the strength of the recommendations given by the different analysts. Analysts involved as underwriters issued significantly more positive recommendations than other analysts. Their mean recommendation was 2.3812 whereas for other analysts it was 2.5099. The difference is significant at the 1% level. We also find the IPO underwriters issued stronger buy recommendations than other analysts, 2.3487 against 2.5099. The difference is again significant at the 1% level. There is also a significant difference in the recommendations of follow-on

underwriters relative to other analysts. The respective means are 2.3948 and 2.5099 respectively, with the difference significant at the 1% level. Therefore, follow-on analysts produce the lowest mean forecast errors and the strongest buy recommendations. A plausible explanation is that these are listed firms and as a result performance track records will have been established. Analysts are therefore better able to predict earnings as opposed newly listed IPO's where track records are less transparent.

The results in Table III show that underwriters are more optimistic in their forecasts relative to non-underwriter analysts following the same stocks. However, we find that this is being driven by IPO underwriters because they are significantly more optimistic whereas follow-on underwriters have significantly lower forecast error than other analysts. In terms of stock recommendations, we find that all underwriter classifications recommend significantly stronger buy recommendations than other analysts. This holds for all underwriters as well as for IPO and follow-on underwriters.

Insert Table IV

The analysis is developed by analysing the performance of the underwriters in terms of the stocks they underwrote relative to their performance on stocks they did not underwrite. If we predict that underwriters are independent (REFS), we would expect no differences in the analyst's performance between the two types of stocks. Table III compares the underwriting analysts forecast error (FE) to the FE of all other stocks the underwriting analyst follows. It also compares the underwriting analysts mean recommendation to

the mean analyst recommendation for all other stocks the underwriter analyst follows. It therefore assesses the extent to which underwriter analysts are optimistic when dealing with firms that generate underwriter fees relative to firms that do not generate such additional income.

We find that forecasts for underwritten stocks are significantly more optimistic than forecasts for non-underwritten stocks. The average forecast errors for underwritten and non-underwritten stocks are 0.1513 and 0.1196 respectively, with the difference being significant at the 1% level. We also find higher mean forecast errors when the underwriting involves an IPO, the average forecast error being 0.2067 against 0.1196 for other stocks. Follow-on mean forecast errors are also higher than the forecasts for other stocks, with the average error being 0.1293 and 0.1196 respectively. The former is significant at the 1% level and the latter at the 5% level.

The results show that underwritten stocks are characterised by greater optimism and that other stocks followed by the same analyst are characterised by greater accuracy. This is counter to Cowan et al. (2003) and Chen et al. (2003) who argue that underwriters try to avoid negative surprises by publishing lower forecasts that are easier to achieve by management. This would be consistent with a strategy of presenting a positive picture of the performance of underwritten stocks. This finding offers support for the strategic reporting bias model of Duggan and Nathan (1995).

As far as stock recommendations are concerned, underwritten stocks receive more optimistic buy recommendations than other stocks dealt with by the same underwriter. The mean recommendation is 2.3813 for underwritten stocks and 2.5236 for non-underwritten stocks. There are similar significant differences with IPO and follow-on stocks relative to non-underwritten stocks. All differences are significant at the 1% level.

Table IV therefore shows that the forecasts made by underwriter analysts are more optimistic than the forecasts they make for non-underwritten stocks. The recommendations are also stronger. These results therefore indicate bias in relation to underwritten stocks.

Insert table V

The next part of the analysis looks at the effect of legal setting on underwriters' forecasts and recommendations. Table V separates the sample by legal system, English law, French law, German law and Scandinavian law. If the common law system offers greater incentives for underwriters to produce less optimistic forecasts, we would expect that the English law forecasts would have smaller average errors than the other legal systems. We also expect the weakest system to produce the highest errors. The results support this view. The English common law legal system does produce the lowest average forecast errors, 7.48%, the French system has the largest errors, 15.58% with the other two in between, 10.10% for the German system and 12.63% for the Scandinavian system. As the third column shows, the

differences are statistically significant at the 1% level for all alternative legal systems. The results therefore show that a common law legal framework is associated with less optimistic forecasts.

We then investigated the extent to which the type of legal system influenced underwriter recommendations. Given the greater rights under common law, we would expect underwriters, with their better access to information, to provide more accurate and less optimistic forecasts and recommendations than non-underwriters following an IPO.

Insert Table VI

Table VI presents the results for analysts forecast errors and recommendations by country. It presents two sets of results. First, it shows the mean forecast error of underwriters and other analysts' forecasts by country. Second, it compares the underwriting analyst mean forecast error (FE) to the mean FE for all other analysts following the same IPO stocks by country. Third, it compares the mean analyst's recommendation to the mean recommendation for all other analysts following the same IPO stocks by country.

In terms of the optimism hypothesis, we find no evidence that underwriters under a common law system produce less optimistic forecasts. Five countries produce underwriter error of under 10%, Sweden, Italy, the Netherlands, Finland and the UK. They cover all legal systems except the German-origin.

The most optimistic forecasts, in general, are produced the French and German legal systems with the most optimistic forecasts being produced in Spain, Germany, Norway and Austria.

There is mixed evidence in terms of underwriter optimism. We find no significant difference between the analyst forecast errors for IPO underwriters and the forecast errors of other analysts for three countries, Belgium, Spain and Denmark. However, all other countries all experienced significant differences. Of these, two countries, Finland and Sweden, had significantly lower underwriter IPO forecast errors illustrating that IPO underwriters produced less optimistic forecasts than other underwriters. The other eight countries all had significantly higher underwriter IPO analyst forecast errors. Again, all errors were positive indicating an optimistic view of performance. Thus the Scandinavian-origin law produced significantly less optimistic underwriter forecasts, with Sweden being the least optimistic. However, there is one exception to this, Norway has very high forecast errors suggesting that their system has its own specific characteristics.

Table VI shows that the UK produces the most positive recommendations with an average of 1.60. The Scandinavian system produces the least strong buy recommendations with the French and German systems producing mixed results.

In relation to the extent to which IPO underwriters are more optimistic in their recommendations, three countries, Finland, Norway and Sweden, had no

significant differences in the recommendations made by IPO analysts and other analysts. Two countries, Italy and Switzerland, had significantly weaker buy recommendations made by IPO analysts. The other eight countries all had significantly stronger buy recommendations given by IPO analysts.

Overall, the results show country specific differences in the extent of underwriter optimism and stock recommendations. The differences between legal system types is less clear-cut but in general terms, it appears that the English-origin system produces a more accurate, less optimistic set of underwriter forecasts and recommendations than the other systems. There is therefore some evidence to support La Porta et al. (1998) and Higgins (1998) arguments of the importance of legal system types as a determinant of forecaster optimism.

Insert Table VII

Table VII presents two sets of results for each country. First, it compares the underwriting analysts forecast error (FE) to the FE of all other IPO stocks the underwriting analyst follows. Second, it compares the underwriting analysts' mean recommendations to the mean analyst recommendations for all other IPO stocks the underwriter analyst follows.

As columns two and three show, we find evidence that analysts involved in IPOs are statistically more optimistic in their forecasts relative to their forecasts of non-underwritten stocks. This holds for eight countries. Two have

statistically less optimistic forecasts, Finland and Sweden, and three countries have insignificant differences, Belgium, the UK and Denmark.

Table VII also shows, columns 5 and 6, that in the majority of countries, analysts make stronger buy recommendations on stocks they have underwritten and less strong buy recommendations on non-underwritten stocks. Statistical differences were found for eight of the countries. In one case, Italy, statistically stronger buy recommendations were made on non-IPO stocks. The other four countries, Spain, Switzerland, Finland and Norway, had no differences in the recommendations.

V. Conclusions

The paper has examined the accuracy of security analysts' earnings forecasts and stock recommendations for firms in 13 European countries. We report three key findings. First, there is strong evidence that lead and co-lead underwriter analysts' earnings estimates and stock recommendations are significantly more optimistic than those of unaffiliated analysts. Second, we find that lead and co-lead underwriter analysts' earnings forecast and stock recommendations are significantly more optimistic for underwriter stocks than for those they provide for other stocks. Third, we also find evidence that these differences are not driven by one particular country but find that the legal system is an important factor. Overall, our findings indicate that affiliated analysts are more optimistic than unaffiliated analysts which would be consistent with maintaining good investment banking relations.

VI. References

- Abarbanell, J., and R. Lehavy. 2003. "Biased forecasts or biased earnings? The role of reported earnings in explaining apparent bias and over/underreaction in analysts' earning forecasts," *Journal of Accounting & Economics* 36: 105 – 146.
- Affleck-Graves, J., L. Davis, and R. Mendenhall. 1990. "Forecasts of earnings per share: possible sources of analyst superiority and bias," *Contemporary Accounting Research* 6: 501 – 517.
- Baginski, S. P., and J. M. Hassell. 1990. "The Market Interpretation of Management Earnings Forecasts as a Predictor of Subsequent Financial Analyst Forecast Revision," *The Accounting Review* 65:1: 175-190.
- Barber, B., R. Lehavy, M. McNichols, and B. Trueman. 2006. "Buys, Holds, and Sells: The Distribution of Investment Banks' Stock Ratings and the Implications for the Profitability of Analysts' Recommendations," *Journal of Accounting and Economics* 41: 87-117.
- Bhushan, R. 1989. "Firm characteristics and analyst following," *Journal of Accounting and Economics* 11: 255 – 274.
- Brennen, M., and P. Hughes. 1991. "Stock prices and the supply of information," *Journal of Finance* 46: 1665 – 1691.
- Bolliger, G. 2004. "The characteristics of individual analysts' forecasts in Europe," *Journal of Banking & Finance* 28: 2283 - 2309.
- Boni, L. and K. Womack. 2002. "Solving the sell-side research problem: insights from buy-side professionals," University of New Mexico and Dartmouth College, Working Paper.

- Brown, L. 1997. "Analyst forecasting errors: additional evidence," *Financial Analysts Journal* 53: 81 – 88.
- Brown, L. 2001. "A temporal analysis of earnings surprises: profits and losses," *Journal of Accounting Research* 39: 221 – 241.
- Butler, K. and L. Lang. 1991. "The forecast accuracy of individual analysts: evidence of systematic optimism and pessimism," *Journal of Accounting Research* 30: 150-156.
- Chan L., J. Karceski and J. Lakonishok. 2003. "Analysts' conflict of interest and biases in earnings forecasts," University of Illinois at Urbana, Champaign, Working Paper.
- Chan, L., D. Ikenberry, J. Lakonishok and S. Lee. 2004. "Are all analysts equal? Consistency in forecasting ability," University of Illinois at Urbana, Champaign, Working Paper.
- Chopra, V. 1988. "Why so much error in analysts' earnings forecasts?" *Financial Analysts Journal* 54: 30-37.
- Clarke, J., S. Ferris, N. Jayaraman and J. Lee. 2006. "Are analyst recommendations biased? Evidence from corporate bankruptcies," *Journal of Financial and Quantitative Analysis* 41: 169-196.
- Clayman, M. and R. Schwartz. 1994. "Falling in love again – analysts' estimates and reality," *Financial Analysts Journal* 50: 66-68.
- Cliff, M. 2004. "Do independent analysts provide superior stock recommendations?" Virginia Polytechnic Institute & State University, Blacksburg, VA, Working Paper.

Cowen, A., B. Groysberg, and P. Healy. 2003. "Which types of analyst firms make more optimistic forecasts?" Harvard University, Boston, MA, Working Paper.

Das, S., C. Levine, and K. Sivaramakrishnan. 1998. "Earnings predictability and bias in analysts' earnings forecasts," *Accounting Review* 73: 277-294.

Dreman, D., and M. Berry. 1995. "Analyst forecasting errors and their implications for security analysis," *Financial Analysts Journal* 51: 30-41.

Dugar, A. and S. Nathan. 1995. "The effect of investment banking relationships on financial analysts' forecasts and investment recommendations," *Contemporary Accounting Research* 12: 131-160.

Francis, J. and D. Philbrick. 1993. "Analysts' decisions as products of a multi-task environment," *Journal of Accounting Research* 31: 216-230.

Gu, Z., and J. Wu. 2003. "Earnings skewness and analyst forecast bias," *Journal of Accounting & Economics* 35: 5 – 29.

Han, J., and H-T. Tan. 2007. "Investors' reaction to management guidance forms," *The Accounting Review* 82: 521–543.

Hayes, R., and C. Levine. 2000. "An approach to adjusting analysts' consensus forecasts for selection bias," *Contemporary Accounting Research* 17: 61 – 83.

Higgins, H. 1998. "Analyst forecasting performance in seven countries," *Financial Analysts Journal* 54: 58 – 62.

Hong, H., and J. Kubik. 2003. "Analyzing the analysts: career concerns and biased earnings forecasts" *Journal of Finance* 58: 312 – 351.

Irvine, P. 2004. "Analysts' forecasts and brokerage-firm trading," *Accounting Review* 79: 125 – 149.

- Jackson, A. 2005. "Trade generation, reputation and sell-side analysts," *Journal of Finance* 60: 673 – 717.
- Krigman, L., W. Shaw, and K. Womack. 2001. "Why do firms switch underwriters?" *Journal of Financial Economics* 60:245-284.
- La Porta, R., F. Lopez-de-Silanes, S. Shleifer and R. Vishny. 1998. "Law and finance," *Journal of Political Economy* 106: 1113-1155.
- Lim, T. 2001. "Rationality and analysts' forecast bias," *Journal of Finance* 56: 369 – 385.
- Matsumoto, D. 2002. "Management's incentives to influence analysts' forecasts," *Accounting Review* 77: 483 – 514.
- Lin, H. and C. McNichols. 1998. "Underwriting relationships, analysts' forecasts and investment recommendations," *Journal of Accounting and Economics* 25: 101-127.
- McNichols, M. and P. O'Brien. 1997. "Self selection and analyst coverage," *Journal of Accounting Research* 12: 653-686.
- Michaely, R., and K. Womack. 1999. "Conflict of interest and the credibility of underwriter analyst recommendations," *Review of Financial Studies* 12: 653 – 686.
- Mittendorf, B., and Y. Zhang. 2005. "The role of biased earnings guidance in creating a healthy tension between managers and analysts," *Accounting Review* 80: 1193 – 1209.
- O'Brien, P. 1990. "Forecast accuracy of individual analysts in nine industries," *Journal of Accounting Research* 28: 286-304.

- Pownall, G., C. Wasley, and G. Waymire. 1993. "The Stock Price Effects of Alternative Types of Management Earnings Forecasts," *The Accounting Review* 68:4: 896-912.
- Richardson, S., S. Teoh, and P. Wysocki. 2004. "The walkdown to beatable analyst forecasts: the roles of equity issuance and insider trading incentives," *Contemporary Accounting Research* 21: 885 – 924.
- Rogers, J. L., and A. Van Buskirk. 2008. "Shareholder litigation and changes in disclosure behavior," AAA 2007 Financial Accounting & Reporting Section (FARS) Meeting Paper, April.
- Scofini, M. 1992. "At Morgan Stanley, analysts were urged to soften harsh views," *The Wall Street Journal* 14 July.
- Venkataraman, S., L. Koonce, and D. E. Hirst. 2008. "Management earnings forecasts: A review and framework," *Accounting Horizons* 22: No. 3.
- Welch, I. 2000. "Herding among security analysts," *Journal of Financial Economics* 58: 369 – 396.

Table I
Descriptive Statistics – Analyst – Employer Characteristics

Table I reports descriptive statistics on employer and analysts characteristics, earnings forecasts, and recommendations for the period January 1988 through May 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Panel A provides information on the number of analyst-employer characteristics; Panel B provides information on analyst mean characteristics; Panel C provides information on analyst characteristics by country.

Panel A: Analyst – Employer Characteristics								
Year	Underwriters				Other			
	Distinct Employers - Underwriters	Distinct Analysts	Estimates	No. of Firms	Distinct Employers - Other	Distinct Analysts	Estimates	No. of Firms
1988	20	39	142	59	67	270	2,051	226
1989	25	62	306	74	98	385	4,254	255
1990	30	75	507	97	125	518	6,168	266
1991	37	110	710	119	144	756	8,852	318
1992	50	147	871	135	170	911	11,544	347
1993	56	173	1,216	145	198	1,238	16,044	340
1994	44	160	866	114	202	1,239	9,654	319
1995	42	185	623	130	208	1,509	7,862	432
1996	57	307	1,097	184	219	2,358	15,303	483
1997	65	416	1,804	241	229	3,115	22,502	578
1998	69	456	2,152	264	238	3,472	27,624	638
1999	73	538	2,528	319	243	3,770	31,760	743
2000	78	617	2,995	366	231	4,125	37,823	787
2001	76	676	3,464	377	207	4,341	39,555	749
2002	69	686	3,921	362	181	4,537	44,028	689
2003	62	640	4,045	315	161	4,497	45,938	621
2004	55	643	4,151	290	135	4,314	49,733	539
2005	50	490	3,320	223	132	3,704	40,459	401

Panel B: Analysts Characteristics

Year	Underwriters				Other			
	Mean Analysts per Employer	Mean Estimates per Analyst	Mean Estimates per Analyst per Firm	Mean Firms Per Analyst	Mean Analysts per Employer	Mean Estimates per Analyst	Mean Estimates per Analyst per Firm	Mean Firms Per Analyst
1988	2.45	3.92	2.09	1.90	8.10	8.76	3.07	2.86
1989	3.12	5.32	3.00	1.77	8.40	13.38	3.97	3.38
1990	3.27	7.13	3.80	1.88	8.85	15.13	4.46	3.40
1991	3.78	6.89	3.69	1.87	10.63	15.20	4.52	3.38
1992	3.78	6.33	3.57	1.78	11.14	16.85	4.73	3.57
1993	4.00	7.63	4.36	1.76	11.71	18.70	5.57	3.37
1994	4.36	5.77	3.66	1.58	9.73	10.66	3.87	2.76
1995	4.67	3.57	2.70	1.32	9.45	6.52	2.56	2.57
1996	5.67	3.81	2.84	1.35	13.50	9.02	3.06	2.96
1997	6.71	4.61	3.37	1.37	16.62	10.72	3.52	3.06
1998	6.86	4.96	3.60	1.38	16.68	11.36	3.72	3.05
1999	7.42	4.90	3.63	1.35	16.97	11.49	3.82	3.01
2000	7.95	5.05	3.70	1.36	19.33	11.78	3.96	2.98
2001	8.99	5.32	4.05	1.32	22.35	11.61	4.00	2.90
2002	10.10	5.91	4.54	1.30	26.58	12.41	4.32	2.88
2003	10.44	6.53	5.12	1.28	29.22	13.25	4.74	2.80
2004	11.80	6.65	5.25	1.27	33.81	15.22	5.54	2.75
2005	9.86	7.06	5.79	1.22	29.84	15.12	5.89	2.57

Panel C: Analysts Characteristics By Country

Country Name	No. of Firms	Distinct Employers-Underwriters	Distinct Employers-Other	Distinct Analysts	Estimates	Mean Analysts per Firm	Mean Analysts Forecast Error	Mean Analysts Recomm.
Austria	34	11	58	444	7,496	21.24	0.138	2.5080
Belgium	22	6	52	294	5,842	24.09	0.463	2.4910
Germany	244	30	114	2,505	58,740	29.19	0.114	2.7074
Spain	54	22	96	1,319	29,959	60.28	0.723	2.4133
France	168	27	106	3,023	102,289	50.99	0.115	2.3089
Italy	68	20	102	1,285	19,206	39.35	0.047	2.4259
Netherlands	61	25	118	1,889	42,385	74.18	0.044	2.4752
Switzerland	59	20	100	1,551	50,665	56.56	0.068	2.5300
United Kingdom	109	17	108	2,173	53,359	37.41	0.107	2.5230
Denmark	26	8	69	565	13,999	35.46	0.049	2.6262
Finland	40	14	91	751	16,967	41.00	0.109	2.5710
Norway	45	16	65	695	21,170	26.98	0.208	2.5831
Sweden	69	17	85	1,084	32,753	32.58	0.093	2.6181

Panel D: Broker Class and Recommendations						
Recommendation	Underwriter Firms			Non-Underwriter Firms		
	% of Total Recomd's	No. of Recomd's	No. of Firms	% of Total Recomd's	No. of Recomd's	No. of Firms
Strong Buy	0.237	4,138	214	0.211	56,948	733
Buy	0.300	5,232	244	0.294	79,254	763
Hold	0.331	5,768	280	0.331	89,152	803
Sell	0.106	1,854	148	0.109	29,391	642
Strong Sell	0.025	436	53	0.054	14,536	518

Table II
Descriptive Statistics – Analyst Recommendations

Table I reports descriptive statistics on employer and analysts characteristics, earnings forecasts, and recommendations for the period January 1994 through June 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Panel A provides information on analyst recommendations by year and Panel B provides information on analyst recommendations by country.

Panel A: Recommendations by Year										
Year	Strong Buy	Buy	Hold	Sell	Strong Sell	% of Strong Buys to Total Recomd	% of Buys to Total Recomd	% of Holds to Total Recomd	% of Sells to Total Recomd	% of Strong Sells to Total Recomd
1994	411	152	438	49	86	0.362	0.134	0.386	0.043	0.076
1995	785	398	1,022	165	217	0.303	0.154	0.395	0.064	0.084
1996	2,349	1,419	2,997	579	777	0.289	0.175	0.369	0.071	0.096
1997	4,083	2,828	5,354	1,250	1,352	0.275	0.190	0.360	0.084	0.091
1998	5,466	4,553	6,936	1,642	1,518	0.272	0.226	0.345	0.082	0.075
1999	6,362	6,569	7,930	1,972	1,444	0.262	0.271	0.327	0.081	0.059
2000	7,234	8,741	9,499	2,545	1,540	0.245	0.296	0.321	0.086	0.052
2001	7,342	10,448	9,992	2,932	1,323	0.229	0.326	0.312	0.092	0.041
2002	7,313	11,496	11,099	3,775	1,432	0.208	0.327	0.316	0.108	0.041
2003	6,711	11,581	12,092	4,696	1,316	0.184	0.318	0.332	0.129	0.036
2004	6,896	13,374	14,058	5,930	2,042	0.163	0.316	0.332	0.140	0.048
2005	6,003	12,865	13,210	5,491	1,882	0.152	0.326	0.335	0.139	0.048

Panel B: Recommendations by Country

Country Name	Strong Buy	Buy	Hold	Sell	Strong Sell	% of Strong Buys to Total Recomd	% of Buys to Total Recomd	% of Holds to Total Recomd	% of Sells to Total Recomd	% of Strong Sells to Total Recomd
Austria	787	863	1,258	303	172	0.233	0.255	0.372	0.090	0.051
Belgium	582	530	1,143	185	76	0.231	0.211	0.454	0.074	0.030
Germany	5,946	8,919	12,844	4,398	2,784	0.170	0.256	0.368	0.126	0.080
Spain	3,851	5,393	5,014	1,868	685	0.229	0.321	0.298	0.111	0.041
France	19,092	23,991	18,336	7,814	2,405	0.267	0.335	0.256	0.109	0.034
Italy	2,079	3,740	3,958	846	306	0.190	0.342	0.362	0.077	0.028
Netherlands	7,653	7,835	13,616	2,151	1,799	0.232	0.237	0.412	0.065	0.054
Switzerland	4,928	8,288	10,014	2,558	1,300	0.182	0.306	0.370	0.094	0.048
United Kingdom	5,158	7,274	9,048	2,132	1,685	0.204	0.288	0.358	0.084	0.067
Denmark	1,806	2,317	3,142	1,377	508	0.197	0.253	0.343	0.150	0.056
Finland	2,302	4,783	4,463	2,082	695	0.161	0.334	0.312	0.145	0.049
Norway	2,316	3,692	4,496	1,678	927	0.177	0.282	0.343	0.128	0.071
Sweden	3,900	6,727	7,152	3,604	1,153	0.173	0.299	0.317	0.160	0.051

Table III

Forecast Error, Recommendations, and Mean Difference

Table II compares the underwriting analyst forecast error (FE) for underwriter stocks to the mean FE for all other analysts following the underwriter stocks. This table also compares the mean analyst's recommendation to the mean recommendation for all other analysts following the underwriter stocks. The time period January 1988 through June 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Forecast error is the difference between predicted earnings per share and the actual earnings per share, scaled by the firms share price. The t-statistics that are reported test for differences in the mean forecast errors of analyst-employer class pairs. N denotes the number of observations. * (**) [***] denotes significance at 1% (5%) and [10%] levels.

Forecast Error and Recommendations by Underwriting Analysts and Other Analysts					
IPO and Follow-On	Underwriter FE for underwriter stocks (N)	Other analysts FE for underwriter stocks (N)	Underwriter Recom's for underwriter stocks (N)	Other analysts Recom's for underwriter stocks (N)	Mean Difference (t-stat)
Underwriter – Other Analysts	0.1513 (37,813)	0.1438 (410,776)			0.0075*** (1.86)
Underwriter Recom's – Other Analysts Recom's			2.3813 (17,428)	2.5099 (189,555)	-0.1286* (15.59)
Type of Financing					
(IPO)Underwriter – Other Analysts	0.2067 (10,725)	0.1438 (410,776)			0.0629* (7.23)
(Follow-On)Underwriter – Other Analysts	0.1293 (27,088)	0.1438 (410,776)			-0.0145* (3.37)
(IPO)Underwriter Recom's – Other Analysts Recom's			2.3487 (5,079)	2.5099 (189,555)	-0.1612* (11.52)
(Follow-On) Underwriter Recom's – Other Analysts Recom's			2.3948 (12,349)	2.5099 (189,555)	-0.1151* (11.97)

Table IV

Forecast Error, Recommendations, and Mean Difference

Table III compares the underwriting analyst forecast error (FE) for underwriter stocks to the FE of all other stocks the underwriting analyst follows. This table also compares the underwriting analysts mean recommendation to the mean analyst recommendation for all other stocks the underwriter analyst follows. The time period January 1988 through June 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Forecast error is the difference between predicted earnings per share and the actual earnings per share, scaled by the firms share price. The t-statistics that are reported test for differences in the mean forecast errors of analyst-employer class pairs. N denotes the number of observations. * (**) [***] denotes significance at 1% (5%) and [10%] levels.

Forecast Error and Recommendations by Underwriting Analyst

IPO and Follow-On	Underwriter FE for Underwriter stocks (N)	Underwriter FE for all other stocks (N)	Underwriter Recom's for Underwriter stocks (N)	Underwriter Recom's for all other stocks (N)	Mean Difference (t-stat)
Underwriter –Other	0.1513 (37,813)	0.1196 (155,499)			0.0317* (7.57)
Underwriter Recom's – Other Recom's			2.3813 (17,428)	2.5236 (61,314)	-0.1423* (15.82)
Type of Financing					
(IPO)Underwriter –Other	0.2067 (10,725)	0.1196 (155,499)			0.0871* (9.93)
(Follow-On)Underwriter – Other	0.1293 (27,088)	0.1196 (155,499)			0.0097** (2.18)
(IPO)Underwriter Recom's – Other Recom's			2.3487 (5,079)	2.5236 (61,314)	-0.1749* (11.40)
(Follow-On)Underwriter Recom's –Other Recom's			2.379 (12,349)	2.5236 (61,314)	-0.1288* (12.55)

Table V

Legals Systems, Forecast Error, and Recommendations

Table IV examines analyst forecast error and recommendations according to origin of law. These legal jurisdictions are English, French, German, and Scandinavian as suggested by La Porta *et al* (1998). The time period January 1988 through June 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Forecast error is the difference between predicted earnings per share and the actual earnings per share, scaled by the firms share price. The t-statistics that are reported test for differences in the mean forecast errors of analyst-employer class pairs. N denotes the number of observations. * (**) [***] denotes significance at 1% (5%) and [10%] levels.

All Forecast Error and Recommendations for Underwriter Stocks				
Origin of Law – Underwriter Stocks	FE for all Stocks followed by Underwriter (N)	Recom's for all Stocks followed by Underwriter (N)	English Law Mean Difference (t-stat)	French Law Mean Difference (t-stat)
English Law	0.0748 (19,684)	2.5018 (5,351)		
French Law	0.1558 (80,206)	2.3417 (34,611)	-0.0810* (18.37)	0.1601* (9.93)
German Law	0.1010 (57,509)	2.6112 (18,183)	-0.0262* (6.83)	0.0548* (15.34)
Scandinavian Law	0.1263 (35,913)	2.6373 (20,597)	-0.1094* (6.46)	-0.2695* (28.06)
			-0.0515* (11.32)	0.0295* (6.79)
			-0.1355* (8.11)	-0.2956* (31.16)

Table VI

Analysts Forecast Errors and Recommendations By Country

Table IV compares the underwriting analyst mean forecast error (FE) to the mean FE for all other analysts following the IPO stocks by country. This table also compares the mean analyst's recommendation to the mean recommendation for all other analysts following the IPO stocks by country. The time period January 1988 through June 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Forecast error is the difference between predicted earnings per share and the actual earnings per share, scaled by the firms share price. The t-statistics that are reported test for differences. N denotes the number of observations. * (**) [***] denotes significance at 1% (5%) and [10%] levels. * (**) [***] denotes significance at 1% (5%) and [10%] levels.

All Analysts Forecast Error and Recommendations for Underwriter Stocks By Country						
Country Name	Forecast Error IPO	Forecast Error Other	Mean Difference Forecast Error IPO – Other (t-stat)	Analyst Recom. IPO	Analyst Recom. Other	Mean Difference Recom. IPO – Other (t-stat)
Austria	0.2413	0.1387	0.1026 (3.38)**	2.1771	2.5188	-0.3417 (3.03)*
Belgium	0.2282	0.2403	-0.0121 0.2016	1.9412	2.2622	-0.3210 (3.06)*
Germany	0.3028	0.1012	(20.82)* 0.0794	2.6073	2.7343	(2.95)* -0.1417
Spain	0.8614	0.7820	(0.90) 0.0799	2.2426	2.3843	(2.30)** -0.3707
France	0.2012	0.1213	(9.01)* 0.0040	1.9706	2.3413	(10.72)* 0.1862
Italy	0.0236	0.0196	(1.72)** 0.0199	2.7284	2.5422	(2.76)* -0.7039
Netherlands	0.0657	0.0458	(3.69)* 0.1030	1.7936	2.4975	(12.15)* 0.1792
Switzerland	0.1738	0.0708	(6.95)* 0.0398	2.6734	2.4942	(2.72)* -0.7886
United Kingdom	0.0835	0.0437	(2.52)** 0.0129	1.6087	2.3973	(10.08)* -0.3946
Denmark	0.0710	0.0581	(0.55) -0.0502	2.3045	2.6991	(5.46)* -0.0288
Finland	0.0670	0.1172	(5.43)* 0.1089	2.5880	2.6168	(0.58) 0.0014
Norway	0.2845	0.1756	(2.13)** -0.0287	2.5877	2.5863	(0.01) 0.0322
Sweden	0.0152	0.0439	(2.48)**	2.6810	2.6488	(0.87)

Table VII

Analysts Forecast Errors and Recommendations By Country

Table V compares the underwriting analysts forecast error (FE) to the FE of all other IPO stocks the underwriting analyst follows. This table also compares the underwriting analysts mean recommendation to the mean analyst recommendation for all other IPO stocks the underwriter analyst follows. The time period January 1988 through June 2005 for all I/B/E/S reported firms within 13 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and United Kingdom). Forecast error is the difference between predicted earnings per share and the actual earnings per share, scaled by the firms share price. The t-statistics that are reported test for differences. N denotes the number of observations. * (**) [***] denotes significance at 1% (5%) and [10%] levels. * (**) [***] denotes significance at 1% (5%) and [10%] levels.

Underwriter Forecast Error and Recommendations for Underwriter Stocks By Country						
Country Name	Forecast Error IPO	Forecast Error Other	Mean Difference Forecast Error IPO – Other (t-stat)	Analyst Recom. IPO	Analyst Recom. Other	Mean Difference Recom. IPO – Other (t-stat)
Austria	0.2413	0.1720	0.0693 (2.04)**	2.1771	2.6117	-0.4346 (3.61)*
Belgium	0.2282	0.2088	0.0194 (0.34)	1.9412	2.2073	-0.2661 (2.29)**
Germany	0.3028	0.0968	0.2060 (19.29)*	2.6073	2.6764	-0.0691 (1.70)***
Spain	0.8614	0.4929	0.3685 (5.12)*	2.2426	2.3215	-0.0789 (1.16)
France	0.2012	0.1097	0.0915 (9.65)*	1.9706	2.3181	-0.3475 (10.06)*
Italy	0.0236	0.0401	-0.0165 (1.79)***	2.7284	2.4779	0.2505 (3.57)*
Netherlands	0.0657	0.0392	0.0265 (4.87)*	1.7936	2.5045	-0.7109 (12.28)*
Switzerland	0.1738	0.0685	0.1053 (5.95)*	2.6734	2.5777	0.0957 (1.49)
United Kingdom	0.0835	0.0759	0.0076 (0.29)	1.6087	2.5407	-0.9320 (11.12)*
Denmark	0.0710	0.0574	0.0136 (0.56)	2.3045	2.6964	-0.3919 (5.31)*
Finland	0.0670	0.1240	-0.0570 (5.27)*	2.5880	2.6658	-0.0778 (1.57)
Norway	0.2845	0.1686	0.1159 (2.56)**	2.5877	2.5486	0.0391 (0.38)
Sweden	0.0152	0.0649	-0.0497 (4.87)*	2.6810	2.7752	-0.0942 (2.34)**