Survey of financial statement analysis courses in Europe and the United States

By Clyde Stickney and Hervé Stolowy

Clyde P. Stickney
The Signal Companies Professor of Management
Amos Tuck School of Business Administration
Dartmouth College
Hanover, NH 03755
Clyde.Stickney@Dartmouth.edu.

Hervé Stolowy*
Professor of Accounting
HEC School of Management
1, rue de la Libération
78351 – Jouy-en-Josas Cedex – France
stolowy@hec.fr

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* Corresponding author
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Abstract

The paper reports the results of a survey of the content and learning materials used in courses in financial statement analysis in Europe and the United States. Courses in Europe and undergraduate courses in the U.S. exhibit similar characteristics with respect to course content (heavy emphasis on basic tools of analysis). Graduate courses in the U.S. place heavier emphasis on coverage of generally accepted accounting principles and on applications of basic analytical tools. Differences in course content appear related to where the financial statement analysis course lodges within the accounting curriculum.

Résumé

Ce papier présente les résultats d’une étude portant sur le contenu et les instruments pédagogiques utilisés dans des cours d’analyse financière en Europe et aux Etats-Unis. Les cours européens et les cours “undergraduate” américains présentent des caractéristiques similaires au regard du contenu (accent mis sur les outils de base de l’analyse financière). Les cours “graduate” américains insistent davantage sur le traitement des principes comptables et sur l’application des outils d’analyse. Les différences dans le contenu des cours peut s’expliquer par la localisation du cours dans le cursus d’enseignement de la comptabilité financière.

Keywords

Accounting education – financial statement analysis – Europe – U.S. – graduate – undergraduate

Acknowledgements

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Introduction: Interest for financial statement analysis education

The congruence between the expectations of academics, practitioners and students about the objectives of accounting education has been much debated. In this context, it is always interesting to study how one area of accounting education is being taught.

This paper reports the results of a survey conducted during the summer of 1998 to study the content and structure of courses in financial statement analysis (FSA) at academic institutions in Europe and the United States. No particular hypothesised differences between these geographical locations motivate our study. Rather, our interest stems from a perceived increased interest in courses in financial statement analysis at both the undergraduate and graduate levels and a desire to obtain a pulse of the status of the course in these two localities. Forces leading to increased interest in this course in recent years include the growth in five-year accounting programs in the U.S., expanded interest in security valuation and investments both domestically and globally, increased interest in capital markets research by academicians, and the appearance during the 1990s of several new textbooks on financial statement analysis (Stickney 1990; White, Sondhi, and Fried 1994; Rees 1990; Samuels, Brayshaw and Craner 1995; Palepu, Bernard, and Healy 1996; Haskins, Ferris, and Selling 1996; Blake and Amat 1996; Laidler and Donaghy 1998).

This research may be of interest to accounting departments wanting to add an FSA course to their curriculum or the departments desiring to “benchmark” an existing FSA course.

The remainder of our paper proceeds as follows. The first section presents a review of the relevant literature. Section 2 describes the research methodology, including the questionnaire used. Section 3 presents our results, focusing on the prevalence of FSA course, its content, and assignment materials. Section 4 suggests some limitations of our study and directions for future research and Section 5 presents the conclusions.
Literature review

Some areas of accounting education have been subject to numerous surveys dealing with what is being taught or what should be taught. For example, several articles on international accounting education have been published emphasising the internationalisation of the accounting curriculum and the necessity to cover both comparative aspects and accounting dimensions of multinational enterprises (see namely Stolowy and Tenenhaus, 1998).

In the governmental accounting area, Miller and Van Daniker (1999) conducted a survey to uncover the changes that have been taken place in government accounting education during the past five years and those that will likely occur during the next five years.

Paradoxically, the field of financial statement analysis has not been explored a lot. Prober and Sherman (1988) presented the results of a survey of undergraduate accounting departments in schools which have received AACSB accreditation or whose accounting program has itself been separately accredited by the AACSB to determine how FSA was being covered in their curriculae. They showed that although most schools do cover the topic, a large percentage do not include important aspects of the subject such as the significance of user objectives, footnote disclosures, or trend analysis in their presentation. At that time, Prober and Sherman encouraged expanded coverage of FSA topics in existing accounting courses.

About ten years later, Koehn and Hallam (1999) carried out a survey on the pervasiveness and attributes of stand-alone FSA courses at both an undergraduate and graduate level in the US. This paper provided demographic data of survey participants as well as information regarding motivations for offering the course, classroom materials, instructional methods and topic analysis. However, in comparison with this survey, our paper compares the US and Europe, and put also more emphasis on the difference between undergraduate and graduate programs.
Methodology

SAMPLE

A questionnaire was sent to each school listed in the U.S. portion of the Accounting Faculty Directory, compiled by James R. Hasselback (1998). In almost all cases, the questionnaire was sent to the individual designated as the head of the accounting group.

With regard to the European population, the questionnaire was sent to each European-member academic institution in the European Accounting Association (EAA) and the European Finance Association (EFA). Several academics from the same institution were contacted in some cases to increase the likelihood of receiving a response to the questionnaire. We asked the correspondent to have the individual most familiar with the subject at that institution fill out the questionnaire. We did not include more than one response from any single institution when we received more than one, unless the responses related to different courses. Questionnaires were sent to institutions in 27 countries. The 27 countries sampled include 14 member countries of the European Union (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and United Kingdom) and 13 other countries (Croatia, Cyprus, Czech Republic, Estonia, Hungary, Iceland, Malta, Norway, Poland, Russia, Slovenia, Switzerland and Turkey). A breakdown of the number of questionnaires/ syllabi received by country in Europe is given in table 1.
Table 1. Breakdown of questionnaires/syllabi by country (for Europe)

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of questionnaires/syllabi</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Belgium</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Czech republic</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Denmark</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Finland</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Greece</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ireland</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Norway</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Poland</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Sweden</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>53</strong></td>
<td></td>
</tr>
</tbody>
</table>

We should point out that this study is our aggregation of the results for the European respondents as if the academic institutions and the countries were homogenous. In fact, differences exist in the academic programs across countries. Despite the movement to a unified Europe, differences in business practices and cultures also exist. Our research was not designed to study systematically how differences in business practices and cultures affected our results.

However, in order to be sure that, on a statistical point of view, we could consider our European respondents as an homogeneous sample, we carried out a multivariate analysis of variances to detect if the content of FSA course, as split between fifteen topics\(^1\) taken altogether are significantly different between the European countries grouped in three classes. We have concluded that there are no significant differences between the three classes\(^2\) as Wilks’ Lambda is equal to 0.433 and the associated F to 1.247 with significant level of 0.22. This tends to show that Europe may be considered, for the purpose of the comparison with US institutions, as a rather homogenous sample. (By contrasts, we used the same method to compare Europe (as a global sample) and US and we found very significant results: Wilks’ Lambda is equal to 0.607 and the associated F to 5.476 with significant level of 0.0001).

\(^1\) We choose the content of FSA course because it constitutes one of the main points of our study.

\(^2\) We grouped the countries in the following way (see table 1): class 1 “Southern Europe” (France, Italy, Spain…), class 2 “Northern Europe” (Germany, Sweden…) and class 3 “Western Europe” (Ireland and UK).
SURVEY INSTRUMENT

The specific questions addressed to participants in the survey are as follows:

1. Does your institution offer a separate course in financial statement analysis?
2. What proportion of class time do you devote to each of several topics (discussed below).
3. What is the relative emphasis of the course on domestic companies versus companies headquartered in other countries?
4. Do you require students to perform an integrative analysis of one or more companies as a separate project distinct from day-to-day assignments?
5. Do you use a single required textbook, multiple required textbooks, multiple recommended textbooks, or some other approach to reading assignments?
6. To what extent do you require students to read articles from the professional analyst literature?
7. To what extent do you require students to read articles from the academic literature?

The sections below discuss the specifics of the questionnaire more fully and present the survey results.

RESPONSE RATE

The number of questionnaires sent and the response rates were as follows (table 2):

<table>
<thead>
<tr>
<th></th>
<th>This study (Europe)</th>
<th>This study (United States)</th>
<th>Prober and Sherman (1988)</th>
<th>Koehn and Hallam (1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire's Sent</td>
<td>425</td>
<td>827</td>
<td>219</td>
<td>362</td>
</tr>
<tr>
<td>Responses Received</td>
<td>184</td>
<td>336</td>
<td>100</td>
<td>163</td>
</tr>
<tr>
<td>Response Rate</td>
<td>43.3%</td>
<td>40.6%</td>
<td>45.6%</td>
<td>45%</td>
</tr>
<tr>
<td>Number of syllabi/questionnaires</td>
<td>53</td>
<td>90</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

This idea of grouping is debatable (see an example of discussion on classification of countries in Nobes and Parker [1998, p. 55]). By simplification, we divided Europe into three geographical areas.
Thus, the response rates were similar and rather satisfactory, if compared to previous surveys.

Results

PREVALENCE OF FSA COURSE

The initial question asked of respondents was whether their institution offered a separate FSA course (as opposed to including FSA materials as part of other courses). The results were as follows (table 3):

Table 3. Prevalence of FSA course

<table>
<thead>
<tr>
<th></th>
<th>Europe</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Responses Received</td>
<td>184</td>
<td>336</td>
</tr>
<tr>
<td>Respondents Indicating a Separate FSA Course</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>Percentage of Institutions with Separate FSA Course</td>
<td>54.3%</td>
<td>26.8%</td>
</tr>
</tbody>
</table>

The significantly smaller percentage of U.S. institutions with a separate FSA course was somewhat of a surprise. Part of the explanation lies in the makeup of the U.S. sample. Approximately one third of the U.S. respondents were from four-year colleges with four or fewer faculty members in accounting according to Hasselback's directory. It is unlikely that such schools offer a full range of accounting courses. Courses in FSA at the undergraduate level frequently build on core accounting principles courses and usually appear either as electives for seniors or as required courses in five-year programs. Colleges with limited offerings in accounting often do not have accounting majors. The high proportion of such schools in the U.S. sample probably explains in part the lower overall proportion of respondents with a separate FSA course. In Europe, the statistics confirm that FSA is a well-developed course taught in more that one-half of our sample.

Respondents in the U.S. were then asked to indicate the level (undergraduate versus graduate) where they offered the FSA course. Of the 90 U.S. respondents, 23 indicated that they offered a separate FSA course at the undergraduate level only, 44 indicated that they offered such a course at the graduate level only, and 23 indicated that they offered a course at both the undergraduate and graduate levels. Thus, the course is more prevalent at the graduate (59 courses) than at the undergraduate level (31 courses), although a significant
number of schools offer the course at the undergraduate level. It would be interesting to study changes in the prevalence of the FSA course over time.

Business education in Europe makes less of a distinction between undergraduate and graduate programs than in the U.S. Some countries, such as the UK, have a system similar that in the U.S., with a clear distinction between undergraduate and graduate programs. Other countries simply designate their programs as professional degree programs in accounting. Italy and France, for example, grant a *Baccalauréat* degree when students complete high school. When such students study in a business school during the next five years, they are considered graduate students, although they are younger (23 year old on average when they complete their studies) and have less work experience than graduate students in the U.S.

As a consequence of these differences in the educational systems in Europe, we did not ask respondents to distinguish between undergraduate and graduate courses in the European sample.

**CONTENT OF FSA COURSE**

We asked respondents who offered a separate FSA course to indicate the proportion of the course devoted to each of several topics. Respondents in the U.S. were asked to indicate whether the course described was offered at the undergraduate or the graduate level. Thus, we were able to compare course offerings in both Europe and the U.S. and then to compare undergraduate and graduate courses in the U.S.

The topic categories and the brief description included in the survey instrument are as follows:

1. Review of financial accounting (financial statements, notes, audit opinion).
2. Basic tools and concepts of financial statement analysis (common size and trend statement, financial statement ratios, profit margin, asset turnover, rates of return, operating and financial leverage, growth and working capital needs, alternatives measures of performance).
3. Environment of financial statement analysis (efficient capital markets, sources of information, regulation of financial reporting, investor relations).

4. Industry economic characteristics and firm-specific strategic choices affecting financial statement interpretations.

5. Domestic generally accepted accounting principles and earnings quality issues.

6. Generally accepted accounting principles of other countries (i.e., non-domestic).

7. Cash flows and their relation to earnings.

8. Uses of financial statement analysis in:
   - Competitor profitability analysis.
   - Merger and acquisition analysis
   - Credit risk analysis
   - Bankruptcy risk analysis
   - Forecasting and pro forma financial statements.

9. Other topics (please specify).

10. Project presentations.

In addition to completing the questionnaire, respondents were asked to include a course syllabus. Of the 100 European respondents that offered a separate FSA course, 53 either indicated the proportions of the course devoted to each of the topics above or included a sufficiently detailed course syllabus that permitted us to infer the appropriate proportions. The remaining 47 respondents either did not indicate the proportions devoted to each topic or send a sufficiently detailed syllabus, despite several follow-up letters. Of the 90 U.S. respondents with such a course, 49 included a course syllabus. Using the course syllabi and the indicated reading and case assignments, we checked the respondents allocations of class time to each of the topics above to ensure as much consistency as possible across the surveys received.

Appendix 1 presents the mean, standard deviation, and median proportions of the course devoted to each topic. The last column shows the overall mean for all respondents. One is immediately struck by the large standard deviations relative to means for most topics, suggesting considerable variation across respondents. Unlike courses in accounting
principles, where there is general agreement about the topics covered, considerable variation exists for the FSA course.

To assess the significance of the differences in the distributions of proportions for each topic, we ran Mann-Whitney U tests. The asterisks in the first two columns of Appendix 1 indicate topics where the European and U.S. distributions were significantly different (one asterisk indicates a 10 percent significance level; two asterisks indicate a 5 percent significance level). The asterisks in the third and fourth columns indicate significant differences between the U.S. undergraduate and U.S. graduate distributions on each topic.

Europe versus U.S.

Comparisons of the results for European and U.S. respondents reveal eight topics with significant differences. We comment on these topics.

Basic Tools

European courses devote a higher proportion of the FSA course to basic tools. It is interesting to note that coverage of basic tools also shows significant differences when comparing U.S. undergraduate versus U.S. graduate courses (see below). The higher proportion of the course devoted to basic tools in Europe may in part reflect the absence of a distinction between undergraduate and graduate courses. The mean and median proportions of the course devoted to basic tools in Europe is, however, even higher than the corresponding proportions for U.S. undergraduate courses. The greater emphasis on basic tools in the FSA course in Europe could be explained by the absence or the minimal coverage of this topic, as in many US undergraduate programs, in the first accounting course taken by students. However, to our knowledge, there is a trend in Europe, not shown in our survey, towards inclusion of financial statement analysis in the first accounting course.

3 We also ran parametric T-tests and found some differences in results relative to the Mann-Whitney U test. The use of proportions makes T-tests appropriate, but we were somewhat concerned about the small sample sizes, particularly for the U.S. undergraduate sample, and the required normalcy assumption of the T-test. Significance results using T-tests are available from the authors.
Exhibit 1 indicates that U.S. courses devote a higher proportion of the course to consideration of the economics and strategies of businesses than the European counterparts. One possible explanation is that several recently published textbooks in the U.S. place a heavy emphasis on integrating economic and strategic considerations into the interpretation of financial ratios (for example, Palepu, Bernard, and Healy (1996); Stickney (1990)).

**Domestic GAAP**

Although consideration of domestic GAAP comprises an important part of the FSA course in both the Europe and the U.S., the proportion in the U.S. is significantly higher. An examination of the proportions for U.S. undergraduate versus U.S. graduate courses suggests that the higher overall U.S. proportion results from the greater emphasis on GAAP in graduate courses. A common practice in U.S. MBA programs is to offer a single second-level financial accounting course that includes both GAAP not covered in the initial course and tools of financial statement analysis. The more typical structure in U.S. undergraduate programs is to offer advanced GAAP courses and FSA course separately. The European course structure more closely resembles that found in U.S. undergraduate programs.
Cash Flows

A third significant difference is the larger proportion of the course in the U.S. devoted to cash flows and their relation to earnings. One possible explanation is that U.S. GAAP has required the reporting of a statement of cash flows for a longer time than GAAP in some European countries. For instance, the statement of cash flows is recommended but not compulsory in Belgium, France, Italy and the Netherlands. This longer history has led to documentation of more cases where the level and trend of cash flows differed from earnings, to increased use of cash flow data in valuation models, and to increased research on the relation between accrual earnings and cash flows. The lack of significance in the proportions for U.S. undergraduate versus U.S. graduate courses supports the generally greater emphasis on this topic in the U.S.

Applications

The proportions devoted to three of the applications topics (competitor analysis, M&A analysis, and forecasting) were higher in the U.S. than in Europe. One might be led to interpret this result as the offset to the higher proportion of the FSA course in Europe devoted to basic tools. That is, perhaps European courses start at a more basic level because FSA is not taught before. As a consequence, these courses, because time is limited, cannot move as far along to applications as U.S. courses. However, if we sum the mean proportions of the course devoted to all application topics listed in our survey, the total for Europe is 28.81 percent and for the U.S. is 29.44 percent. Thus, we are at a loss to suggest reasons for the higher proportions for these three topics in the U.S.

Project presentations

A final significant difference concerns the proportion of the course devoted to project presentations. To gain perspective on this difference, we must first ask if there was a difference in the proportion of the courses that required a project to begin with. The responses to this question were as follows (table 4):
A Chi-square test showed statistical significance (at a level of .01) to the difference in proportions for Europe versus the U.S. but no significance for U.S. undergraduate versus U.S. graduate. Thus, separate projects appear to be a popular learning tool in most FSA courses in the United States. The lower proportion for European institutions may reflect a history of greater emphasis on lecture-based education. It may also reflect the use of multiple case studies as opposed to a single, large project to develop FSA skills.

Thus, the greater use of projects in the U.S. may explain in part the larger proportion of the course devoted to oral presentations of projects. Another possible explanation is the recent increased emphasis in the U.S. on developing effective oral communication skills.

**U.S. Undergraduate versus U.S. Graduate.**

Seven topics show significant differences when comparing U.S. undergraduate versus U.S. graduate courses. Six of these seven differences appear related to a common explanation. Undergraduate courses devote more time to review of financial accounting and basic tools and graduate courses devote more time to specific applications (merger and acquisition analysis, credit analysis, bankruptcy prediction, and security valuation). These differences occur because of where the FSA course falls in the student's education. The FSA course at the undergraduate level is often the student's first in-depth exposure to the tools of financial statement analysis. The course frequently serves as a synthesising experience after accounting students have completed accounting principles courses in their junior and senior years. Initial coverage of the basic tools often occurs in the undergraduate course, whereas graduate courses in FSA are usually second-year electives in MBA programs. MBA students often experience initial exposure to the basic tools in a first-year accounting
or finance course. It is not surprising that undergraduate courses devote more of their time to review and introduction of the basic tools. Applications of the tools to specific analysis settings often use case studies of actual companies and require integrative skills across several business disciplines. The use of case studies is typically found more commonly in graduate programs.

The other significant difference is in the time devoted to GAAP of other countries, with graduate courses devoting more time than undergraduate courses. To gain insight into this difference, we need to examine differences in international coverage in general. We asked respondents to indicate the relative emphasis on analysis of domestic companies versus companies headquartered in other countries. The results were as follows (table 5):

<table>
<thead>
<tr>
<th>Table 5. Analysis of domestic versus non-domestic companies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Domestic Companies</td>
</tr>
<tr>
<td>Non-Domestic Companies</td>
</tr>
</tbody>
</table>

A Mann-Whitney U test showed no significant differences between the European and U.S. percentages and between the U.S. undergraduate versus U.S. graduate percentages. Although not statistically significant, the seemingly greater emphasis on analysis of non-domestic companies in European FSA courses is not surprising. Because of relative size and location of individual countries, Europeans tend to look beyond their borders more frequently than Americans. The relatively low percentage of non-domestic companies examined in U.S. courses is somewhat surprising, given the rapid growth in global markets and multinational business. Although many large U.S. companies derive substantial percentages of their business from other countries, analysing such companies still basically involves analysing a U.S. company (that is, U.S. GAAP, U.S. business practices and culture).

The similar (low) emphasis on non-domestic companies in U.S. undergraduate and graduate courses suggests that other explanations account for the greater proportion of the course devoted to non-U.S. GAAP in graduate courses. The explanation relates to the placement of GAAP and FSA material in the accounting curriculum, a point discussed earlier. Graduate FSA courses in the U.S. place heavier emphasis on coverage of GAAP
(both domestic and non-domestic) in general than undergraduate courses. Undergraduate courses typically cover GAAP in intermediate and advanced accounting principles courses. Graduate programs either have separate courses in GAAP and FSA or combine them into a single course. The greater emphasis on GAAP in FSA graduate courses reflects attempts to cover both GAAP and FSA in a single course. The high standard deviations around the mean for the time devoted to GAAP reflects the inclusion of GAAP in either a separate course or included in the FSA course.

Results Across Topics

The last column of Exhibit 1 shows the overall mean for each topic for the combined European and U.S. samples. One might view the first four topics (review, basic tools, environment, and industry/strategy characteristics) as the building blocks for effective analysis. The sum of the overall means for these four topics is 42.29 percent of the course. The topics relating to domestic GAAP, non-domestic-GAAP, and cash flows versus earnings encompass data issues and relevant variables for analysis. The sum of the overall means for these three topics is 22.98 percent. The six applications topics sum to 29.21 percent. Table 6 reports these summed means for the various respondent groups. With the exception of project presentations, FSA courses in Europe show greater similarity to U.S. undergraduate courses than U.S. graduate courses in the proportion of time devoted to various topics.

Table 6. Mean proportions of course devoted to broad categories of topics

<table>
<thead>
<tr>
<th>Category</th>
<th>Europe</th>
<th>Total U.S.</th>
<th>U.S. Under</th>
<th>U.S. Grad.</th>
<th>Overall Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Blocks (review, basic tools, environment, industry characteristics)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>48.30</td>
<td>38.74</td>
<td>45.10</td>
<td>35.41</td>
<td>42.29</td>
</tr>
<tr>
<td>Data Issues and Relevant Variables (domestic GAAP, non-domestic GAAP, cash flows versus earnings)</td>
<td>19.08</td>
<td>25.28</td>
<td>22.81</td>
<td>26.58</td>
<td>22.98</td>
</tr>
<tr>
<td>Applications</td>
<td>28.80</td>
<td>29.44</td>
<td>25.26</td>
<td>31.64</td>
<td>29.21</td>
</tr>
<tr>
<td>Other Topics</td>
<td>1.18</td>
<td>0.70</td>
<td>0.39</td>
<td>0.86</td>
<td>0.88</td>
</tr>
<tr>
<td>Project Presentation</td>
<td>2.63</td>
<td>5.83</td>
<td>6.45</td>
<td>5.51</td>
<td>4.65</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>
ASSIGNMENT MATERIALS

We asked a series of questions about the type of assignment materials used in FSA courses.

Textbook

Respondents were asked to indicate their use of textbooks in the FSA course. The proportions of respondents in each group indicating various uses of textbooks appear below (table 7).

Table 7. Use of a textbook

<table>
<thead>
<tr>
<th>Observed data</th>
<th>Europe</th>
<th>U.S. Total</th>
<th>U.S. Undergraduate</th>
<th>U.S. Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Textbook Required</td>
<td>9</td>
<td>60</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Single Textbook Required and Multiple Textbooks Recommended</td>
<td>19</td>
<td>16</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>No Textbook Required but Multiple Textbooks Recommended</td>
<td>15</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>No Textbook Used in the Course</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Other Approach</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>90</td>
<td>31</td>
<td>59</td>
</tr>
<tr>
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<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>90</td>
<td>31</td>
<td>59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentages</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Textbook Required</td>
<td>20%</td>
<td>67%</td>
<td>77%</td>
<td>61%</td>
</tr>
<tr>
<td>Single Textbook Required and Multiple Textbooks Recommended</td>
<td>42%</td>
<td>18%</td>
<td>6%</td>
<td>24%</td>
</tr>
<tr>
<td>No Textbook Required but Multiple Textbooks Recommended</td>
<td>33%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>No Textbook Used in the Course</td>
<td>2%</td>
<td>4%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Other Approach</td>
<td>2%</td>
<td>10%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

A Chi-square test shows that the difference in proportions of the European versus U.S. samples is significant at .01 and that the difference between the U.S. undergraduate and U.S. graduate is significant at a .10 level of significance.

The greater use of multiple textbooks in Europe relative to the U.S. results from the greater need in Europe to be familiar with more reporting environments and the very low number of textbooks that cover all of the relevant background. A reading of the syllabi suggests that, even in European countries where the FSA course is taught in English (UK, some Scandinavian countries, and some MBA programs in non English-speaking
countries), the instructor used multiple textbooks. Our interpretation is that the textbooks available in English tended to emphasise reporting in the U.S. instead of European reporting.

The heavier use of multiple textbooks in graduate, relative to undergraduate, courses in the U.S. probably reflects the less directed approach to graduate education (that is, graduate students are encouraged to seek other explanations of topics studied) and the absence of a single textbook that meets the more varied objectives of this course found at the graduate level.

*Readings from the professional analyst literature*

Respondents were asked to indicate the number of articles from the professional analyst literature that students were assigned to read in the course. The proportion in each category appears below (table 8).

<table>
<thead>
<tr>
<th></th>
<th>Europe</th>
<th>U.S. Total</th>
<th>U.S. Undergraduate</th>
<th>U.S. Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Observed data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>25</td>
<td>19</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>1 to 5 articles</td>
<td>14</td>
<td>49</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>6 to 10 articles</td>
<td>5</td>
<td>12</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>More than 10</td>
<td>0</td>
<td>9</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>89</td>
<td>31</td>
<td>58</td>
</tr>
<tr>
<td>No answer available</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>90</td>
<td>31</td>
<td>59</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>57%</td>
<td>21%</td>
<td>35%</td>
<td>14%</td>
</tr>
<tr>
<td>1 to 5 articles</td>
<td>32%</td>
<td>55%</td>
<td>52%</td>
<td>57%</td>
</tr>
<tr>
<td>6 to 10 articles</td>
<td>11%</td>
<td>13%</td>
<td>6%</td>
<td>17%</td>
</tr>
<tr>
<td>More than 10</td>
<td>0%</td>
<td>10%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-square tests show that the differences between Europe and the U.S. are significant at a .01 level and the differences between the U.S. undergraduate and U.S. graduate are significant at the .10 level.

The use of articles from the professional literature in European courses is more similar (although different) to the pattern for U.S. undergraduate courses than for U.S. graduate
courses. This result is consistent with the heavier emphasis of both European and U.S. undergraduate courses on the basic tools of analysis. The heavier use of readings from the professional analyst literature in U.S. graduate, relative to undergraduate, courses reflects in part the desire in graduate courses to stretch student learning beyond the textbook and in part to the likely higher proportion of students at the graduate level taking the FSA course as preparation for a financial analyst position.

Readings from the academic literature

Respondents were also asked to indicate their use of readings from the academic literature using the same categories as above. The results are as follows (table 9).

Table 9. Number of readings from the academic literature

<table>
<thead>
<tr>
<th>Observed data</th>
<th>Europe</th>
<th>U.S. Total</th>
<th>U.S. Undergraduate</th>
<th>U.S. Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>21</td>
<td>43</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>1 to 5 articles</td>
<td>13</td>
<td>37</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>6 to 10 articles</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>More than 10 articles</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>87</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td>No answer available</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>90</td>
<td>31</td>
<td>59</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentages</th>
<th>Europe</th>
<th>U.S. Total</th>
<th>U.S. Undergraduate</th>
<th>U.S. Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>48%</td>
<td>49%</td>
<td>66%</td>
<td>41%</td>
</tr>
<tr>
<td>1 to 5 articles</td>
<td>30%</td>
<td>43%</td>
<td>34%</td>
<td>47%</td>
</tr>
<tr>
<td>6 to 10 articles</td>
<td>16%</td>
<td>7%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>More than 10 articles</td>
<td>7%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-square tests show the differences between Europe and the U.S. to be significant at a .10 level and between the U.S. undergraduate and graduate significant at the same level.

The responses for the European sample in this case are more similar to the U.S. graduate response than to the U.S. undergraduate response. European courses appear to make even heavier use of articles from the academic literature than U.S. graduate courses. This result seems inconsistent with the greater similarity of European FSA courses with U.S. undergraduate courses. One possible explanation is that FSA textbooks in the U.S. incorporate more of the academic literature than is the case with textbooks in Europe. Instructors compensate for any such difference by assigning articles from the academic
literature. Another possible explanation is that the academic literature in Europe is more applied than in the U.S., so that some articles that appear in the academic literature in Europe would appear in professional analyst literature in the U.S.

Limitations and directions for future research

One limitation of this study is that the results portray a snapshot of the FSA course at a moment in time. Perhaps another interesting question is how this course has changed in recent years and is expected to change in the near future. Koehn and Hallam (1999) report that a major driver for schools to add an FSA course is student demand. Interest in business education in general and investment analysis in particular around the world will likely lead to increased interest in FSA courses. Changes in information technologies and globalisation of capital markets will likely affect the content of such courses.

We also deliberately decided not to enter the field of prescriptions because this study is a description of what is and we think it would be pure speculation to predict changes in the future. We also restricted the references to the literature available in the English language.

One other limitation of the topical part of our study could have been the influence of cultural and language differences across countries in completing the questionnaire, especially in Europe. We avoided this difficulty by checking systematically the questionnaires with the corresponding syllabi, which allowed us to reach reasonable homogeneity in the way the questionnaires were completed.

We explored the question of the separate FSA course with figures on the percentages of institutions giving this course (see above). We also noticed that the link between an FSA course and the first accounting course is important and could explain some of our results. In this context, it should be interesting to address the issue of effectiveness. For example, how does the specific coverage of FSA, or its particular positioning within the overall curriculum, impact on pedagogic effectiveness?
Conclusion

With the exception of project presentations, we found that FSA courses in Europe show greater similarity to U.S. undergraduate courses than U.S. graduate courses in the proportion of time devoted to various topics. The absence of a distinction between undergraduate and graduate education in most European countries may partly explain this result. A second explanation is that the FSA course in both European and U.S. undergraduate programs is often the initial exposure of students to FSA tools and concepts, whereas the graduate FSA course in the U.S. is often a second exposure to financial statement analysis.
References


# Appendix 1
Mean, Standard Deviation, and Median Proportions of Financial Statement Analysis Course Devoted to Selected Topics

<table>
<thead>
<tr>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review</td>
<td>9.29</td>
<td>8.02</td>
<td>11.06**</td>
</tr>
<tr>
<td>Basic Tools</td>
<td>26.96**</td>
<td>16.84**</td>
<td>20.26**</td>
</tr>
<tr>
<td>Environment</td>
<td>8.63</td>
<td>6.56</td>
<td>7.00</td>
</tr>
<tr>
<td>Economics/Strategy</td>
<td>3.42**</td>
<td>7.32**</td>
<td>6.77</td>
</tr>
<tr>
<td>Domestic GAAP</td>
<td>9.86**</td>
<td>13.18**</td>
<td>11.61</td>
</tr>
<tr>
<td>Non-Domestic GAAP</td>
<td>3.35</td>
<td>3.28</td>
<td>1.77**</td>
</tr>
<tr>
<td>Cash Flows</td>
<td>5.87**</td>
<td>8.82**</td>
<td>9.42</td>
</tr>
<tr>
<td>Applications: Competitor Analysis</td>
<td>2.03**</td>
<td>3.04**</td>
<td>3.58</td>
</tr>
<tr>
<td>M&amp;A Analysis</td>
<td>2.92*</td>
<td>3.49*</td>
<td>2.52*</td>
</tr>
<tr>
<td>Credit Analysis</td>
<td>4.74</td>
<td>4.09</td>
<td>3.76**</td>
</tr>
<tr>
<td>Bankruptcy Prediction</td>
<td>5.19</td>
<td>2.86</td>
<td>1.66**</td>
</tr>
<tr>
<td>Forecasting</td>
<td>4.75**</td>
<td>6.87**</td>
<td>6.81</td>
</tr>
<tr>
<td>Other Topics</td>
<td>1.18</td>
<td>.70</td>
<td>.39</td>
</tr>
<tr>
<td>Project Presentations</td>
<td>2.63**</td>
<td>5.83**</td>
<td>6.45</td>
</tr>
<tr>
<td>Number of Respondents</td>
<td>53</td>
<td>90</td>
<td>31</td>
</tr>
</tbody>
</table>

*Significant at .10.
**Significant at .05.