

**THE “STATEMENT OF INTERMEDIATE BALANCES”: A TOOL FOR
INTERNATIONAL FINANCIAL STATEMENT ANALYSIS BASED ON
INCOME STATEMENTS “BY NATURE”,
AN APPLICATION TO AIRLINE INDUSTRY**

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ABSTRACT

Since September 11, 2001, and during the ensuing economic slowdown, a number of airline companies have experienced significant financial difficulties, including bankruptcies and near bankruptcies. In an economic setting where many airlines are struggling to achieve or maintain profitability, it is important for accountants, auditors and financial analysts to be able to analyze the relative performance of such companies. In this industry, income statements are normally prepared “by nature” rather than “by function.” This differs from the usual presentation found in the income statements of many companies around the world, in particular most American companies. This paper demonstrates how to perform a comparative financial statement analysis when an income statement is prepared “by nature,” through application of a tool called the “Statement of Intermediate Balances.” This tool is illustrated using three companies chosen from different continents: Southwest Airlines, a low cost US air carrier, Air France, the leader in Europe and China Eastern Airlines, one of the biggest Chinese air carriers.

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INTRODUCTION

Income statements (also known as “statements of operations” or “profit and loss accounts”) can be presented in a manner that reflects two possible classifications of expenses, that is: “by nature” or “by function”. In the first case, expenses are organized into categories like purchases, salaries, depreciation, rent, etc. In the second case, expenses are divided into “functions” like: selling and marketing, administration and general, research and development, etc. By tradition, or following local regulations, different countries may be more comfortable or more familiar with one of these two methods. For example, the “by function” form of presentation is well known in North America, while the “by nature” presentation is practiced in several European countries such as Italy, Spain and France. In a particular country where one format is more practiced, the “alternative” format may not be familiar to the “financial community” (not only to financial analysts and investors, but also academics and students). The main objective of this paper is to present a tool, called the “Statement of Intermediate Balances” (SIB in the rest of the paper), which is especially tailored to analyze an income statement presented “by nature”. Despite a common belief that there is essentially one format for the income statement, an analysis of financial statements and annual reports on an international basis indicates that income statements presented “by nature” are widespread and are found, even in countries where the format “by function” is the general rule (or practice).

The airline industry provides particular evidence of the usefulness of the SIB because, in this sector, income statements are normally prepared “by nature” rather than “by function.” In this paper we will illustrate the use of the SIB by studying three companies chosen from different continents: Southwest Airlines Co. (“Southwest” in the rest of the paper), a low cost U.S. air carrier, Air France, the leader in Europe (and now in the world, after completion of the merger with KLM) and China Eastern Airlines (“China Eastern”), one of the biggest Chinese air carriers.

The remainder of the paper proceeds as follows. The next section discusses several possible formats for presenting an income statement. Section 3 describes the Statement of Intermediate Balances. Section 4 analyzes the income statements of the three chosen companies and section 5 concludes the paper.

INCOME STATEMENTS “BY NATURE” AND “BY FUNCTION”

Presentation

An income statement is intended to report how a company’s financial and operating performance was achieved during a particular period. Such statements reflect the revenues and expenses of an enterprise during a period and display the net income for the period. Net income is typically the remainder after all expenses have been deducted

from revenues and is a measure of the wealth generated by an economic entity (i.e. the net increase to stockholders' equity) during an accounting period.

An income statement can be organized in different ways with respect to its format (e.g. horizontal vs. vertical format), its degree of fineness, and the manner of classifying expenses (see Figure 1).

*** Insert Figure 1 here ***

Formats

An income statement includes a list of revenue and expense account balances, usually in aggregate form. The list of account balances can be presented as a continuous list (vertical format) or as two lists side by side (horizontal format).

Degree of Fineness

Expenses in an income statement are usually grouped into homogeneous categories and then subtracted step-by-step from revenues. With regard to the degree of fineness, the choice is between a single-step or a multiple-step format.

Single-step: This is the simplest version for an income statement. All revenues are grouped into one category and all expenses are grouped into another category. Expenses are then subtracted from revenues. A variation of this format can be seen whereby all operating revenues are followed by all operating expenses. This permits the determination of operating income. Afterwards, several sub-levels of earnings may be presented (e.g. income before income tax, net income). This type of format is still considered to be a single-step format because the essential elements of the income statement (i.e. operating revenues and operating expenses) are presented separately.

Multiple-step: In a multiple-step format, the revenue and expense categories are paired in a manner that highlights various sub-components of net income (e.g. gross profit, operating income, income from continuing operations). The multiple-step format is the most common format used in business reporting because it is considered to be more informative than the single-step approach (see, for more detail, Kieso, Weygandt, & Warfield, 2001, p. 132).

Classification of Expenses

The distinction between classifying expenses “by nature” or “by function” is not addressed in US GAAP, even though US government regulations do address this distinction. The International Accounting Standards Board has specifically addressed the distinction between “by nature” and “by function” expense classification, by stating that:

Expenses are subclassified to highlight components of financial performance that may differ in terms of frequency, potential for gain or loss and predictability. This analysis is provided in one of two forms [“by nature” or “by function”] (IASB, 2003, par. 90).

Classification by Function (or “Cost of Sales Method”): This type of income statement format classifies expenses according to their role in the determination of net income. Cost of goods sold, commercial, distribution and administrative expenses are common categories employed in the “by function” format (see Table 1).

Classification by Nature (or “Nature of Expenditure Method”): In using the “by nature” format, expense accounts are combined in a way that reflects their nature (e.g. purchases of raw materials, transportation costs, taxes other than income tax, salaries and related costs, depreciation, etc.) (see Table 1). This format is relatively easy to use, even for small enterprises, because no allocation or partitioning of expenses is required.

*** Insert Table 1 here ***

Choice of a Classification Approach

The multiple-step format, organized by function, is the most common format used by American companies (AICPA, 1999). In comparing the different approaches to income statement presentation, several remarks can be made:

- A preference for classification “by nature” may reflect the requirements of governmental agencies that need such information to prepare national income accounts (this is often the case in European countries). A “by nature” presentation allows the calculation of the value added by an enterprise to the over-all economy of a country. The “value added” concept is important for countries that have a value added tax system. In essence, the value added concept¹ measures the amount of value created by a firm beyond what it acquired from outside the economic entity (see Haller & Stolowy, 1998).
- Preference for a “by function” presentation often reflects an emphasis on the needs of capital markets. The “by function” format is the preferred method in North America, and it is used by most firms listed on the New York Stock Exchange.

The IASB has indicated that presentation of income statements “by function” “provides more relevant information to users than the classification of expenses by “nature” (IASB, 2003, par. 92). However, the IASB also points out that: “allocating costs to functions may require arbitrary allocations and involve considerable judgment.” Paragraph 94 of the same standard recognizes that: “the choice between the function of expense method and the nature of expense method depends on historical and industry factors and the nature of the entity” (IASB, 2003). The IASB states that “each method of presentation has merit for different types of entities” (IASB, 2003, par. 94).

Compared to the classification “by function”, the format “by nature” is a disaggregated format, with more items disclosed, and the related risk of revealing potential inside information to competitors. The trade-offs between positive and negative aspects of disaggregation is an issue. However, as the format of the income statement is highly standardized in the airline industry (see below), competitors are on a more even playing field.

Reasons for the adoption of the “by nature” format in the airline industry

The search for explanations concerning the prevalence of the “by nature” format in the US airline industry is difficult because the origin of this format is not stated explicitly in companies’ annual reports. Some explanations for the “by nature” format have been obtained by contacting the investor relations departments at several US airline companies and by performing a search of regulations issued by the US Department of Transportation.

Airline accounting in the US is determined in part by the Uniform System of Accounts and Reports (USAR) issued by the US Department of Transportation (DOT) (DOT, 2002). Pursuant to DOT regulations: “all profit and loss elements are accounted for within specific objective accounts, which are descriptive of both basic areas of

financial activity, or functional operation, and objective served” (DOT, 2002, USAR, part 241, section 1-3). The USAR envisions two types of classification; one by function (or financial activity) and one by nature (or objective). Section 7 of the USAR includes a “chart of profit and loss accounts” employing an “objective classification of profit and loss elements,” including:

- Transport revenues (passenger, mail, property, charter, other)
- Transport-related revenues and expenses (in-flight sales, restaurant and food service (ground), rents, limousine service...)
- Transport expenses (pilots and co-pilots, other flight personnel, maintenance labor..., traffic commissions, general services purchased, landing fees, maintenance materials, passenger food expense, provisions for obsolescence and deterioration...).

The USAR states that: “The profit and loss accounts are designed to reflect, *through natural groupings*, the elements entering into the derivation of income or loss” (our emphasis) (USAR, part 141, section 8). This regulation provides some explanation of why US airlines report their income statement “by nature.” However, we have been unable to locate an official explanation concerning why the “by nature” format has arisen in the US in the airline industry. We hypothesize that this choice was made because the “by nature” format provides a higher degree of detail by disclosing more expense items and is therefore more useful for decision-making.

In France, regulations relating to consolidated financial statements (X, 1999, par. 410) allow companies to choose between the “by nature” and “by function” models. However, for non consolidated financial statements (all legal entities in France are required to prepare separate financial statements prepared in accordance with the General Accounting Plan - “Plan Comptable Général”), the presentation “by nature” is required, given the influence of the national income accounting in France. The requirement of the “by nature” format for non-consolidated financial statements may explain why this format is the most commonly used in France for consolidated financial statements. In the case of Air France, despite the choice mentioned above regarding consolidated financial statements, the income statement is presented “by nature”. This might be explained by the tradition in favor of this format and also by a sort of mimetic behavior, given the fact that virtually all airline companies in the world have adopted the “by nature” format for their income statements (see below).

In China, after the accounting reforms of 1992, the income statement format for all Chinese companies (whether listed or not) is very close to the US one, i.e. a multiple-step format organized “by function”. However, companies with listed shares on exchanges outside of China are required to prepare their financial statements in accordance with International Accounting Standards, which, as mentioned above, authorize both formats. In the case of China Eastern Airlines, the choice of “by nature” presentation for their expenses could also be a mimetic practice in order to follow foreign competitors in the airline industry.

While our analysis of the financial statements of airline companies is not comprehensive, if we exclude the three studied companies, we did find that, in the US, American Airlines, Continental Airlines, Delta Air Lines, Northwest Airlines, and United Airlines have adopted the “by nature” format. In other countries, Air Canada, Japan Airlines and LanChile, to mention a few examples, also prepare their income statements “by nature.” This format is therefore the dominant practice in the air transport industry on a worldwide basis.

PRESENTATION OF THE STATEMENT OF INTERMEDIATE BALANCES

Principles

When an income statement is presented “by nature,” it is often useful to adjust the statement to highlight the key intermediate balances that determine the value creation process of the enterprise. In preparing a Statement of Intermediate Balances, the following balances can be highlighted: “commercial margin,” “value added,” “gross operating income,” and “EBITDA.” Figure 2 demonstrates the structure of a Statement of Intermediate Balances.

*** Insert Figure 2 here ***

Essentially, the SIB dissects the income statement into meaningful blocks of data to help the user understand and interpret the firm’s economic activity. The intermediate balances can be presented in monetary terms, or as percentage variations from one period to the next (trend analysis), or as percentages of some relevant basis (common-size analysis). The SIB can be particularly useful if a company has manufacturing operations combined with merchandising (i.e. wholesale or retail) activities.

Definition of Terms

Commercial Margin: The commercial margin expresses the difference between the sales of merchandise and the cost of merchandise sold.

Current Period Production: The company’s industrial output during the period is the total of production sold plus the cost of self-produced fixed assets.

Value Added: The term “value added” is a concept used in National Income accounting. It refers to the amount contributed by a particular enterprise to the national wealth. Value added is defined as the increase in value resulting from the enterprise’s activities over and above that of goods and services provided by third parties and consumed by the firm. The concept is used in a number of countries, especially Australia, France, Germany, South Africa and the United Kingdom (see Haller & Stolowy, 1998). Value added represents the wealth created by the enterprise that will be distributed to various stakeholders including employees, lenders, governments and shareholders.

EBITDA or Gross Operating Income: The EBITDA (Earnings from Operations Before Interest, Taxes, Depreciation and Amortization) or Gross Operating Income measures the wealth created by the enterprise from its operations, independent of its financial income and expenses, and charges for depreciation and amortization. This indicator helps in evaluating the firm’s short-term ability to create wealth since it is not affected by long-term strategic decisions regarding financing (i.e. capital structure) and capital investment policies. The ratio of EBITDA to sales (or accounting “production”) is often considered to be a measure of the “business profitability” of the firm, thereby allowing inter-company comparisons. EBITDA is also considered to be a proxy for cash flow generated by operations.

Operating Income: Operating income or profit represents the results of the firm’s normal and current activity without taking into account financial and unusual elements.

Net Operating Income Before Income Taxes: Operating net income before taxes indicates economic and financial performance before consideration of unusual items and taxes.

Unusual Income (Loss): Unusual income (loss) is the profit or loss from activities that are not related to the firm's usual operations. This "income" is shown as a separate item on the Statement of Intermediate Balances.

Net Income (Loss): The last line of the Statement of Intermediate Balances is the Net Income (Loss), which is self-explanatory. This figure serves as a check on the equality between the adjusted SIB and the original income statement.

Income statement "by nature" versus "by function"

One of the features of income statements prepared "by nature" is that they allow the calculation of intermediate balances before the net income figure. The calculation of intermediate balances is a useful tool for financial statement analysis, particularly for comparative analyses of company performance. When an income statement is organized "by function", the calculation of intermediate balances such as commercial margin, value added, gross operating profit and operating income are often difficult to perform. However, in the "by function" income statement, some other useful intermediate balances may be reported, such as: gross margin, operating income, etc. Consequently, neither format is necessarily superior to the other, and neither format provides a complete understanding of the firm. One practical difficulty that arises in comparing income statements "by nature" with income statements "by function" is that the transformation of an income statement "by nature" to an income statement "by function" (and vice-versa) is a very difficult exercise, because it requires knowledge of information (concerning inventory, detail of personnel expenses, etc.) that is typically not available to the financial analyst. In this context, one of the primary purposes of this paper is to argue that, when an income statement is presented "by nature", users of financial statements need to be trained to analyze this type of format because they will generally have less familiarity with it and there may be no way to convert the "by nature" format to the more familiar "by function" format. The preparation of a Statement of Intermediate Balances can help analysts to understand the utility of the income statement prepared "by nature".

APPLICATION OF THE STATEMENT OF INTERMEDIATE BALANCES TO SOUTHWEST, AIR FRANCE AND CHINA EASTERN

In an economic setting where a number of airline companies have experienced serious financial difficulties (e.g., in the U.S., Chapter 11 bankruptcy for US Airways on August 11, 2002; financial restructuring of Continental Airlines in summer of 2002; Chapter 11 bankruptcy for United Airlines on December 9, 2002), it is important to be able to analyze and measure the relative performance of such companies. The following sections demonstrate how to perform, in an international setting, a comparative financial statement analysis when an income statement is prepared "by nature." The three companies studied in this case (Southwest, Air France and China Eastern) were chosen for the following reasons. First, they are based in three different continents: North America, Europe and Asia. Southwest is a US based, "low-cost" carrier. Southwest experienced some financial difficulties after September 11th, but generally remained profitable. Air France is currently the largest airline in Continental Europe, and has become the largest airline in the world after completion of its merger with the Dutch company KLM. China Eastern is one of the largest Chinese air carriers.

Presentation of the Companies

The Management's Discussion and Analysis of Financial Position and Results of Operations (MD&A) in the annual report of United Airlines for the year 2001 summarized the state of the US airline industry in particular, and the situation of world airline industry, as follows:

“Beginning in 2001, the weakening U.S. economy had a significant impact on the airline industry as corporations reduced their business travel budgets and changed their travel behavior. During the first six months of 2001, the industry began experiencing significant revenue declines as a result of the decrease in business traffic (...), particularly in the domestic markets. (...) United's revenues (...) were significantly impacted by the events of September 11 and the resulting reduction in the Company's operations.”

In light of the continuing problems in the airline industry, and to better understand how the industry operates, we present financial statements prepared by nature for Southwest, Air France and China Eastern.

Southwest is a major US domestic airline that primarily provides short-haul, high-frequency, point-to-point, low-fare service. Southwest carried 65.7 million passengers in 2003. Its fleet includes 388 aircraft at the end of 2003. By contrast, Air France is third worldwide in terms of transportation of international passengers and first in Europe in terms of traffic (before the merger with KLM). Air France carried 43.7 million passengers during fiscal 2003-04. Its fleet included 372 aircraft as of March 31, 2004. China Eastern was established in the People's Republic of China in 1995. It is headquartered in Shanghai. Its shares are listed in Shanghai, Hong Kong and New York. In 2003, China Eastern carried 12 million passengers. As at May 31, 2004, the Group operated a fleet of 102 aircraft.

In the Appendices 1, 2 and 3.1, the following are found:

- Consolidated Statements of Income for the fiscal years ended December 31, 2000 through December 31, 2003 for Southwest (source: Annual Reports 2001, 2002 and 2003) (see Appendix 1).
- Consolidated Income Statement for the fiscal years ended March 31, 2001 through March 31, 2004 for Air France (source: Annual Reports 2001-2002, 2002-2003 and 2003-2004) (see Appendix 2).
- Consolidated Statements of Income for the fiscal years ended December 31, 2000 through December 31, 2003 for China Eastern (source: Annual Reports 2001, 2002 and 2003) (see Appendix 3.1).

These consolidated financial statements have been respectively prepared in accordance with accounting principles generally accepted in the United States (Southwest), in France (Air France) and with International Financial Reporting Standards and the disclosure requirements of the Hong Kong Companies Ordinance (China Eastern). For simplification purposes, the term “income statement” is used to refer to the “consolidated statements of income” or “consolidated income statements” of the three companies studied.

From the previous annual reports of the three companies, we extracted the following comparative data:

	Southwest	Air France	China Eastern
	1999	1999-2000	1999
	(in \$m)	(in €m)	(in RMBm)
Passenger	4,563	8,377	8,031
Freight	103	1,240	1,730
Other	70	533	402
Maintenance		174	
Total	4,736	10,324	10,163

In the Southwest 2001, 2002 and 2003 Annual reports, the following additional information is provided:

- Agency commissions decreased primarily due to a change in the Company's commission rate policy.
- Depreciation expense increased due to the growth in the Company's aircraft fleet prior to September 11.
- "Other operating expenses" increased until 2002 due to a significant increase in passenger liability, aircraft hull, and third-party liability insurance costs following the terrorist attacks.
- In 2001, the "other gains/losses, net" include the Company's share of government grant funds under the Stabilization Act, arising from the terrorist attacks. On April 16, 2003, as a result of the United States war with Iraq, the Emergency Wartime Supplemental Appropriations Act (Wartime Act) was signed into law. Among other items, the legislation included a \$2.3 billion government grant for airlines. Southwest received a share of the grant during second quarter 2003. This amount is included in "Other (gains) losses" in the accompanying Consolidated Income Statement for 2003.

In Air France's MD&A and notes to the financial statements for the year ended March 31, 2004, the following information is also included:

- Other operating revenues consist of the catering activities.
- Other external expenses include namely insurance premiums, professional fees and aircraft engine rental costs.
- In 2003-04, other operating income and charges, net mainly represents income linked to financial compensation on slot swaps at Heathrow airport.

From the China Eastern annual reports 2001, 2002 and 2003, we notice some changes in the presentation of the "Other income, net" and "Other operating income". The data disclosed in Appendix 3.2 will allow restating some elements of the income statement in order to ensure comparability throughout the period (see Appendix 3.2).

Additionally, the items "Aircraft depreciation and operating leases" and "Other depreciation and operating leases" mix depreciation and leases. In order to separate these two expenses, we found the amount of operating leases in the notes (see Appendix 3.2).

Office and administration expenses mainly include training expenses, and expenses relating to overseas sales. Other operating expenses include maintenance expenses of other fixed assets, computer and telecommunications expenses and other (unspecified) expenses. On December 31, 2002, the Group's fixed assets were revalued. The impact was charged to the income statement under the caption "Revaluation deficit of fixed assets".

Analysis of the income statements' format

Southwest, Air France and China Eastern all use the vertical format for their income statements. Additionally, the first parts of the income statements (up to the point "operating income" for Southwest and Air France, and

“operating profit” for China Eastern), follow the single-step format, whereby operating expenses are subtracted from operating revenues. Following operating income, several sub-level earnings numbers are presented. This format corresponds to the variation of the single-step format discussed previously above.

More important, the three companies have clearly adopted the “by nature” format. Interestingly, China Eastern had a real choice because it follows the International Financial Reporting Standards which allow both formats. It appears likely that China Eastern adopted the format “by nature” in order to be consistent with international reporting practices in the airline industry.

Preparation of Statements of Intermediate Balances

Preliminary indications

- The income statements for the three airline companies are presented “by nature,” which is a necessary condition to the preparation of Statements of Intermediate Balances (SIB).
- In a Statement of Intermediate Balances, percentage figures usually do not appear following the year to which they relate because it is more important to have the percentages figures adjacent to one another. This allows the analyst to compare the evolution of the enterprise over the periods investigated. In practice, the percentages are as important, if not more important, than the absolute currency values.
- Common-sized Statements of Intermediate Balances offer the advantage of allowing comparisons to be made between financial statements presented in different currencies, i.e. US dollars (Southwest), euros (Air France) and Renminbi (China Eastern).
- Common-sized Statements of Intermediate Balances offer the additional advantage of allowing comparisons to be made between periods of unequal length (which is not the case here).
- If there is a difference between companies in the treatment of certain specific revenues or expenses, it is important to adjust these items so that they are treated in the same manner. For instance, the operating leases are included in China Eastern in the same caption with depreciation expenses. With the help of the notes, this amount has been restated (see Appendix 3.2 and below). In the same vein, the “Share in net income of equity affiliates” in Air France has been restated to be included in the financing section, to be consistent with China Eastern and with the general definition of the SIB.
- The location of the sub-elements of the income statement can be different in the SIB from the income statement itself. For example, in Southwest, the “Other (gains) losses, net” which primarily relates to a Government grant, are treated as “unusual items” in the SIB.
- In the income statement of Southwest, the “other expenses (income)” line is presented with a sign opposite to that which would be considered to be a normal presentation (i.e. plus for expenses and minus for income).
- In the China Eastern SIB, the “Other income, net” and “Other operating income” have been restated to ensure comparability throughout the period (see Appendix 3.2). Gain on disposal of aircraft and engines is reported under unusual items. This treatment is consistent with the two other airlines where the gains from sale of fixed assets are shown as unusual items.

- In the China Eastern SIB, the operating leases included in the items “Aircraft depreciation and operating leases” and “Other depreciation and operating leases” (see Appendix 3.2) have been separated and reported in the consumption from third parties.
- In the China Eastern SIB, because office and administration expenses mainly include training expenses, and expenses relating to overseas sales, they have been included in the “Consumption from third parties”.
- In the China Eastern SIB, other operating expenses include maintenance expenses of other fixed assets, computer and telecommunications expenses and other (unspecified) expenses. They fit well in the “Consumption from third parties”.
- In the China Eastern SIB, the “Revaluation deficit of fixed assets” has been considered has an unusual item.

Statement of Intermediate Balances

Statements of Intermediate Balances for Southwest (see Appendices 4.1 and 4.2), Air France (see Appendices 5.1 and 5.2) and China Eastern (see Appendices 6.1 and 6.2), are presented both in absolute currency terms and in percentage terms (i.e. common-sized).

Comparative Analysis of Statements of Intermediate Balances

Revenues/Production²

Even though the common-sized SIBs are based on the principle of dividing all other figures in the statement by the total production for the year, we have added to the statement a line showing the change in revenues for each year as compared with the previous year. It can be seen that before the events of September 11, 2001, Southwest had the greatest growth in revenues (+19.3 % in 2000), ahead of Air France (+18.9%) and China Eastern (+10.4%). After September 11th, the decrease in revenues was the greatest for Southwest (-1.7%). In contrast, Air France realized an increase (+2.0%) and China Eastern an even higher rise of 8.3%. In 2003 Southwest and China Eastern experienced an increase (7.5% and 9.2%, respectively) while the other company suffered a decrease (-2.8% for Air France).

The activities of the three companies are relatively different: China Eastern’s revenues are more diversified (less passenger oriented) than Air France and significantly more diversified than Southwest. Seventy-two percent (71.9%) of China Eastern’s revenues were derived from passengers versus 83.2% for Air France and 96.7% for Southwest in 2003.

Consumption from Third Parties

The ratio of Consumption from Third Parties to Total Production is lower for Southwest (47.9% in 2003) than for Air France (54.7% in 2003) and in particular as compared with China Eastern (72.5% in 2003). This ratio decreased for Air France and for Southwest in comparison with 2002 and 2001, indicating an ability to pass on increased costs to airline passengers. Looking at the breakdown of Consumption from Third Parties, we see that Fuel Cost represents the greatest expense for each of the companies (except for “Other Operating Expenses” for Southwest), especially for China Eastern. Fuel Cost as a percent of Total Production decreased for Air France over the period but increased for China Eastern from 2002 to 2003. This development can be explained by a decrease in

consumption of fuel and a decrease in the average cost per gallon. For Southwest, the weight of fuel cost remained stable over the period (approximately 14%).

Southwest was able to reduce the impact from Consumption from Third Parties because of a reduction in the amount of Commissions (i.e. fees paid to travel agents) (from 2.8% in 2000 to 0.8% in 2003). (The Company modified its system of paying commissions in 2001, which reduced this cost). China Eastern experienced an even greater reduction in Commissions (from 5.7% in 2000 to 3.3% in 2003). For Air France, commissions decreased from 9.8% in 2000 to 8.5% in 2003. While Southwest was able to decrease its Aircraft Rental cost (at 3.1% in 2003), China Eastern increased its cost (from 6.9% in 2000 to 7.3% in 2003) and Air France faced a similar increase (from 3.3% in 2000 to 3.7% in 2003).

China Eastern reports the highest take-off and landing charges (15.8% in 2003, versus 14.0% in 2000), compared to Air France (7.4% in 2003) and Southwest (6.3% in 2003).

We can also easily compare the maintenance costs expended by the three companies. China Eastern comes first with 9.3% in 2003 (increasing from 7.3% in 2000), before Southwest (7.2% in 2003, 6.7% in 2000) and Air France (3.1% in 2003, 4.9% in 2000).

The composition of the category “Other operating expenses” or “Other” or “Other external expenses” may not be entirely comparable between the companies. The annual report of Southwest provides little specific information concerning the make-up of Other Operating Expenses. The only information provided is that the category includes insurance premiums and advertising expenses. We learn that “Other operating expenses” increased due to a significant increase in passenger liability, aircraft hull, and third-party liability insurance costs following the terrorist attacks. For Air France, “Other external expenses” include insurance premiums, professional fees and aircraft engine rental costs. As regards China Eastern, “Other operating expenses” include maintenance expenses of other fixed assets, computer and telecommunications expenses and other (unspecified) expenses. These fit well in the “Consumption from third parties”.

In general, it can be seen that Southwest generally has a lower cost structure than Air France and even lower than China Eastern. However, this relationship deteriorated throughout the period until 2002, with an increase in these costs for Southwest, while the other two companies were decreasing their consumption from third parties (this is especially true for Air France). The situation improved again for Southwest in 2003.

Value Added

While not widely used in North America, the Value Added figure shows the extent to which an enterprise contributes to the national wealth of the country (see Haller & Stolowy, 1998). The Value Added figure for Southwest declined sharply from 2000 to 2001 following the events of September 11th. This was because the cost of Consumption from Third Parties increased in relation to Total Production. This trend shows that Southwest has been unable to pass along the increased cost to its customers. However, the situation improved for Southwest in 2003 and for Air France.

Gross Operating Income

The ratio of Salaries, Wages and Benefits to Total Production for Southwest is generally much higher than for Air France and especially for China Eastern (37.5% in 2003 versus 33.1% for Air France and 10.1% for China Eastern). The increase recorded by Southwest was due in part to increased security requirements following the events of September 11th. Consequently, this increase explains why Southwest recorded a decrease in its Gross Operating Profit from 2000 (23%) to 2003 (14.6%). However, the Gross Operating Profit of Southwest is still higher than that of Air France (10.7% in 2003). China Eastern has by far the highest gross operating profit (17.3% in 2003), due to its low level of salaries.

As discussed previously, Gross Operating Income reflects the return derived from the core activities of the enterprise. The different Gross Operating Income figures indicate the relative performances of China Eastern and Southwest. A negative gross operating income (i.e., a Gross Operating Loss), which is not the case for any of our studied companies, is a sign of financial distress.

Operating Income

For Air France and Southwest, Depreciation and Amortization expense rose in 2003 in comparison with 2002, 2001 and 2000 because of the acquisition of additional aircraft and ground equipment. The ratio of Depreciation and Amortization to Total Production differs between the companies: 6.5% for Southwest in 2003, 9.6% for Air France in 2003 and 12.6% for China Eastern in 2003. The difference in the ratio of Depreciation and Amortization expense to Total Production slightly magnifies the gap between the Operating Income (Loss) of Southwest and China Eastern versus Air France. Air France has a very low operating income (“Earnings from operations”) (1.1% in 2003, compared to 2.9% in 2000). Southwest posted very high but decreasing Operating income (8.1% in 2003, 18.1% in 2000). China Eastern has a decreasing operating income (1.8% in 2003).

Operating Net Income before Taxes

China Eastern’s ratio of Interest Expense (Net) to Total Production is the highest in our sample (5% in 2003), but it decreased from 2000 (7.3%), which is a good sign. China Eastern must have a high level (although decreasing) of outstanding debt. Southwest recorded an increase in the Interest Expense ratio (from 1.2% in 2000 to 1.5% in 2003). Air France reports a very low level of interest expense (net) (0.5% in 2003). However, the comparison between the three studied companies should be made with caution as Southwest reports a gross interest expense when Air France and China Eastern disclose a net amount.

After adjustments for Interest Expense and other items, the Operating Net Income of Southwest remained positive in 2003 (7.6%) but decreasing (as compared with 18% in 2000). Air France a low ratio (1% in 2003) and China Eastern has a negative operating net income before taxes (-3.9% in 2003).

Unusual Income (Loss)

A special charge was recorded by Southwest in 2001 in relation to the September 11 terrorist attacks and the resulting impact on the companies’ schedules and operations. However, the Company also received compensation under the Airline Stabilization Act which partially offset their losses. The impact from unusual items was positive for

Southwest (3.7% in 2001 and 4.4% in 2003). Air France also recorded a positive unusual item from gains on the disposal of fixed assets. China Eastern, conversely, recorded a loss on such items (-0.2% in 2003).

Net Income (Loss)

Southwest had the highest positive Net Income number at 7.4% of its Total Production in 2003. Air France disclosed a low net income percentage (0.8% in 2003) while China Eastern faced a loss in 2003 (-6.6% of Total Production).

Synthesis

The preparation of an SIB indicates that studying net income figures alone is not sufficient. If we look at the Value Added, Southwest has the highest amount. At the level of the Gross Operating Income of the companies, it is clear that the situation of China Eastern is the best. At the level of Operating Income (Loss) before Taxes, the situation is once again better for Southwest. The situation for Southwest remained satisfactory because of its generally lower costs. However, it can be seen that there was deterioration even in Southwest's performance in 2002.

CONCLUSION

This paper has demonstrated how to perform a comparative financial statement analysis when an income statement is prepared "by nature," through application of a tool called the "Statement of Intermediate Balances." This tool has been illustrated using three airline companies: Southwest, Air France and China Eastern. It is particularly useful in a comparative and international setting. However, we should not forget that, when working with the airline industry, the investment community also uses non-financial indicators (i.e., revenue passenger miles³ or kilometers, revenue seat miles, passenger load factor, etc.) in addition to the information contained in financial statements. This non-financial information is not specifically dealt with in this paper, but it can provide a useful complement to the preparation of a Statement of Intermediate Balances (see Liedtka, 2002; Riley, Pearson, & Trompeter, 2003). From another perspective, we should remember that the Statement of Intermediate Balances can be used outside the airline industry, if the income statement is reported by nature.

APPENDICES

Appendix 1 Southwest Airlines Consolidated Statements of Income For years ended December 31, 2003, 2002, 2001, and 2000

(In millions of US \$)	2003	2002	2001	2000
Operating Revenues				
Passenger	5,741	5,342	5,379	5,468
Freight	94	84	91	111
Other	102	96	85	71
Total operating revenues	5,937	5,522	5,555	5,650
Operating Expenses				
Salaries, wages, and benefits	2,224	1,992	1,856	1,684
Fuel and oil	830	762	771	805
Maintenance materials and repairs	430	390	397	378
Agency commissions	48	55	103	160
Aircraft rentals	183	187	192	196
Landing fees and other rentals	372	345	311	265
Depreciation	384	356	318	281
Other operating expenses	983	1,017	976	860
Total operating expenses	5,454	5,104	4,924	4,629
Operating Income	483	418	631	1,021
Other Expenses (Income)				
Interest expense	91	106	70	70
Capitalized interest	(33)	(17)	(21)	(28)
Interest income	(24)	(37)	(43)	(40)
Other (gains) losses, net	(259)	(27)	(203)	2
Total other expenses (income)	(225)	25	(197)	4
Income Before Income Taxes and Cumulative Effect of Change in Accounting Principle	708	393	828	1,017
Provision for income taxes	266	152	317	392
Income before Cumulative Effect of Changes in Accounting Principles	442	241	511	625
Cumulative Effect of Changes in Accounting Principles, Net of income tax	0	0	0	(22)
Net Income	442	241	511	603
Preferred Stock Dividends	0	0	0	0
Net Income (Loss) Available to Common Shareowners	442	241	511	603

Appendix 2
Air France
Consolidated Income Statements
For years ended March 31, 2004, 2003, 2002, and 2001

(In millions of EUR)	2003-04	2002-03	2001-02	2000-01
Operating Revenues				
Passenger	10,260	10,527	10,378	10,022
Cargo	1,412	1,479	1,448	1,491
Maintenance	508	540	548	566
Other	157	141	154	201
Total operating revenues	12,337	12,687	12,528	12,280
Operating Expenses				
Aircraft fuel	(1,302)	(1,369)	(1,443)	(1,625)
Chartering costs	(414)	(415)	(639)	(741)
Aircraft operating lease costs	(458)	(522)	(489)	(410)
Landing fees and en route charges	(913)	(934)	(882)	(814)
Catering	(296)	(319)	(329)	(323)
Handling charges and other operating costs	(756)	(768)	(747)	(697)
Aircraft maintenance costs	(381)	(477)	(652)	(598)
Commercial and distribution costs	(1,051)	(1,157)	(1,133)	(1,199)
Other external expenses	(1,183)	(1,213)	(1,152)	(1,083)
Salaries and related costs	(4,079)	(3,856)	(3,738)	(3,436)
Taxes other than income tax	(186)	(187)	(163)	(154)
Total operating expenses	(11,019)	(11,217)	(11,367)	(11,080)
Gross Operating Result	1,318	1,470	1,161	1,200
Charge to depreciation/amortization, net	(1,184)	(1,195)	(972)	(915)
Charge to operating provisions, net	(46)	(115)	(39)	62
Gain on disposal of flight equipment, net	7	30	78	88
Other operating income and charges, net	44	2	7	8
Operating Income	139	192	235	443
Restructuring costs	(22)	(13)	(11)	(5)
Net financial charges	(60)	(85)	(112)	(137)
Gains on disposals of subsidiaries and affiliates, net	5	4	24	96
Pre-tax Income (Loss)	62	98	136	397
Share in net income of equity affiliates	53	29	31	45
Amortization of goodwill	(15)	(16)	(16)	(62)
Income (Loss) Before Income Tax and Minority Interests	100	111	151	380
Income (Loss) Before Minority Interests	98	124	156	425
Minority interests	(5)	(4)	(3)	(4)
Net Income (Loss)	93	120	153	421

Appendix 3.1
China Eastern Airlines
Consolidated Statements of Income
For years ended December 31, 2003, 2002, 2001, and 2000

(In millions of RMB)	2003	2002	2001	2000
Traffic Revenues				
Passenger	10,261	10,038	9,587	8,644
Cargo and mail	3,187	2,445	2,092	2,124
Other operating revenues	829	596	474	452
Turnover	14,277	13,079	12,153	11,220
Other operating income	2	226	128	0
Operating Expenses				
Wages, salaries and benefits	(1,449)	(1,036)	(773)	(798)
Take-off and landing charges	(2,254)	(1,988)	(1,703)	(1,572)
Aircraft fuel	(3,045)	(2,564)	(2,613)	(2,327)
Food and beverages	(542)	(606)	(567)	(499)
Aircraft depreciation and operating leases	(2,851)	(2,455)	(2,404)	(2,168)
Other depreciation and operating leases	(495)	(400)	(358)	(321)
Aircraft maintenance	(1,329)	(1,078)	(967)	(820)
Commissions	(465)	(380)	(487)	(645)
Office and administration	(1,058)	(1,044)	(849)	(724)
Revaluation deficit of fixed assets	0	(171)	0	0
Other	(570)	(520)	(563)	(568)
Total operating expenses	(14,058)	(12,242)	(11,284)	(10,442)
Operating profit	221	1,063	997	778
Finance costs, net	(712)	(731)	(814)	(814)
Exchange (loss)/gain, net	(70)	(38)	126	0
Other income, net	0	0	0	341
Share of results of associates before tax	(29)	(32)	5	0
Profit before taxation	(590)	262	314	305
Taxation	(247)	(54)	261	(100)
Profit after taxation	(837)	208	575	205
Minority interests	(112)	(122)	(33)	(29)
Profit attributable to shareholders	(949)	86	542	176

Appendix 3.2
China Eastern Airlines
Additional information
For years ended December 31, 2003, 2002, 2001, and 2000

	2003	2002	2001	2000
Net exchange gain/(loss)			126	120
Gain on disposal of aircraft and engines			2	112
Rental income from operating subleases of aircraft			126	111
Other, net			(5)	(2)
Other income, net			249	341
Gain on disposal of aircraft and engines	(29)	116	2	
Rental income from operating subleases of aircraft	31	110	126	
Other operating income	2	226	128	
Operating lease rentals (aircraft)	1,048	1,026	925	769
Operating lease rentals (land and buildings)	46	99	90	83

Appendix 4.1
Southwest Airlines
Statement of Intermediate Balances
(in \$ Millions)

For the years ended December 31	2003	2002	2001	2000
Passenger	5,741	5,342	5,379	5,468
Freight	94	84	91	111
Other	102	96	85	71
Total production for the period	5,937	5,522	5,555	5,650
Fuel and oil	(830)	(762)	(771)	(805)
Agency commissions	(48)	(55)	(103)	(160)
Landing fees and other rentals	(372)	(345)	(311)	(265)
Aircraft rentals	(183)	(187)	(192)	(196)
Maintenance materials and repairs	(430)	(390)	(397)	(378)
Other operating expenses	(983)	(1,017)	(976)	(860)
Consumption from third parties	(2,846)	(2,756)	(2,750)	(2,664)
Value added	3,091	2,766	2,805	2,986
Salaries, wages, and benefits	(2,224)	(1,992)	(1,856)	(1,684)
Gross operating income	867	774	949	1,302
Depreciation	(384)	(356)	(318)	(281)
Operating Income	483	418	631	1,021
Interest expense	(91)	(106)	(70)	(70)
Capitalized interest	33	17	21	28
Interest income	24	37	43	40
Operating net income before taxes	449	366	625	1,019
Other (gains) losses, net	259	27	203	(2)
Unusual income	259	27	203	(2)
Provision for income taxes	266	152	317	392
Cumulative Effect of Changes in Accounting Principles, Net of income tax	0	0	0	(22)
Preferred Stock Dividends	0	0	0	0
Net Income (Loss) Available to Common Shareowners	442	241	511	603

Appendix 4.2
Southwest Airlines
Statement of Intermediate Balances
(in percentage terms)

For the years ended December 31	2003	2002	2001	2000
Passenger	96.7%	96.7%	96.8%	96.8%
Freight	1.6%	1.5%	1.6%	2.0%
Other	1.7%	1.7%	1.5%	1.3%
Total production for the period	100.0%	100.0%	100.0%	100.0%
Change in Production	7.5%	(0.6%)	(1.7%)	19.3%
Change in Passenger revenues	7.5%	(0.7%)	(1.6%)	19.8%
Change in Cargo revenues	11.9%	(7.7%)	(18.0%)	7.8%
Fuel and oil	(14.0%)	(13.8%)	(13.9%)	(14.2%)
Agency commissions	(0.8%)	(1.0%)	(1.9%)	(2.8%)
Landing fees and other rentals	(6.3%)	(6.2%)	(5.6%)	(4.7%)
Aircraft rentals	(3.1%)	(3.4%)	(3.5%)	(3.5%)
Maintenance materials and repairs	(7.2%)	(7.1%)	(7.1%)	(6.7%)
Other operating expenses	(16.6%)	(18.4%)	(17.6%)	(15.2%)
Consumption from third parties	(47.9%)	(49.9%)	(49.5%)	(47.2%)
Value added	52.1%	50.1%	50.5%	52.8%
Salaries, wages, and benefits	(37.5%)	(36.1%)	(33.4%)	(29.8%)
Gross operating income	14.6%	14.0%	17.1%	23.0%
Depreciation	(6.5%)	(6.4%)	(5.7%)	(5.0%)
Operating Income	8.1%	7.6%	11.4%	18.1%
Interest expense	(1.5%)	(1.9%)	(1.3%)	(1.2%)
Capitalized interest	0.6%	0.3%	0.4%	0.5%
Interest income	0.4%	0.7%	0.8%	0.7%
Operating net income before taxes	7.6%	6.6%	11.3%	18.0%
Other (gains) losses, net	4.4%	0.5%	3.7%	(0.0%)
Unusual income	4.4%	0.5%	3.7%	(0.0%)
Provision for income taxes	4.5%	2.8%	5.7%	6.9%
Cumulative Effect of Changes in Accounting Principles, Net of income tax	0.0%	0.0%	0.0%	(0.4%)
Preferred Stock Dividends	0.0%	0.0%	0.0%	0.0%
Net Income (Loss) Available to Common Shareowners	7.4%	4.4%	9.2%	10.7%

Appendix 5.1
Air France
Statement of Intermediate Balances
(in €millions)

For the years ended March 31	2003-04	2002-03	2001-02	2000-01
Passenger	10,260	10,527	10,378	10,022
Cargo	1,412	1,479	1,448	1,491
Maintenance	508	540	548	566
Other	157	141	154	201
Total production for the period	12,337	12,687	12,528	12,280
Aircraft fuel	(1,302)	(1,369)	(1,443)	(1,625)
Chartering costs	(414)	(415)	(639)	(741)
Aircraft operating lease costs	(458)	(522)	(489)	(410)
Landing fees and en route charges	(913)	(934)	(882)	(814)
Catering	(296)	(319)	(329)	(323)
Handling charges and other operating costs	(756)	(768)	(747)	(697)
Aircraft maintenance costs	(381)	(477)	(652)	(598)
Commercial and distribution costs	(1,051)	(1,157)	(1,133)	(1,199)
Other external expenses	(1,183)	(1,213)	(1,152)	(1,083)
Consumption from third parties	(6,754)	(7,174)	(7,466)	(7,490)
Value added	5,583	5,513	5,062	4,790
Salaries and related costs	(4,079)	(3,856)	(3,738)	(3,436)
Taxes other than income tax	(186)	(187)	(163)	(154)
Gross operating income	1,318	1,470	1,161	1,200
Charge to depreciation/amortization, net	(1,184)	(1,195)	(972)	(915)
Charge to operating provisions, net	(46)	(115)	(39)	62
Other operating income and charges, net	44	2	7	8
Operating income	132	162	157	355
Net financial charges	(60)	(85)	(112)	(137)
Share in net income of equity affiliates	53	29	31	45
Operating net income before taxes	125	106	76	263
Gain on disposal of flight equipment, net	7	30	78	88
Restructuring costs	(22)	(13)	(11)	(5)
Gains on disposals of subsidiaries and affiliates, net	5	4	24	96
Unusual income	(10)	21	91	179
Amortization of goodwill	(15)	(16)	(16)	(62)
Income tax	(2)	13	5	45
Minority interests	(5)	(4)	(3)	(4)
Net Income (Loss)	93	120	153	421

Appendix 5.2
Air France
Statement of Intermediate Balances
(in percentage terms)

For the years ended March 31	2003-04	2002-03	2001-02	2000-01
Passenger	83.2%	83.0%	82.8%	81.6%
Cargo	11.4%	11.7%	11.6%	12.1%
Maintenance	4.1%	4.3%	4.4%	4.6%
Other	1.3%	1.1%	1.2%	1.6%
Total production for the period	100.0%	100.0%	100.0%	100.0%
Change in Production	(2.8%)	1.3%	2.0%	18.9%
Change in Passenger revenues	(2.5%)	1.4%	3.6%	19.6%
Change in Cargo revenues	(4.5%)	2.1%	(2.9%)	20.2%
Aircraft fuel	(10.6%)	(10.8%)	(11.5%)	(13.2%)
Chartering costs	(3.4%)	(3.3%)	(5.1%)	(6.0%)
Aircraft operating lease costs	(3.7%)	(4.1%)	(3.9%)	(3.3%)
Landing fees and en route charges	(7.4%)	(7.4%)	(7.0%)	(6.6%)
Catering	(2.4%)	(2.5%)	(2.6%)	(2.6%)
Handling charges and other operating costs	(6.1%)	(6.1%)	(6.0%)	(5.7%)
Aircraft maintenance costs	(3.1%)	(3.8%)	(5.2%)	(4.9%)
Commercial and distribution costs	(8.5%)	(9.1%)	(9.0%)	(9.8%)
Other external expenses	(9.6%)	(9.6%)	(9.2%)	(8.8%)
Consumption from third parties	(54.7%)	(56.5%)	(59.6%)	(61.0%)
Value added	45.3%	43.5%	40.4%	39.0%
Salaries and related costs	(33.1%)	(30.4%)	(29.8%)	(28.0%)
Taxes other than income tax	(1.5%)	(1.5%)	(1.3%)	(1.3%)
Gross operating income	10.7%	11.6%	9.3%	9.8%
Charge to depreciation/amortization, net	(9.6%)	(9.4%)	(7.8%)	(7.5%)
Charge to operating provisions, net	(0.4%)	(0.9%)	(0.3%)	0.5%
Other operating income and charges, net	0.4%	0.0%	0.1%	0.1%
Operating income	1.1%	1.3%	1.3%	2.9%
Net financial charges	(0.5%)	(0.7%)	(0.9%)	(1.1%)
Share in net income of equity affiliates	0.4%	0.2%	0.2%	0.4%
Operating net income before taxes	1.0%	0.8%	0.6%	2.1%
Gain on disposal of flight equipment, net	0.1%	0.2%	0.6%	0.7%
Restructuring costs	(0.2%)	(0.1%)	(0.1%)	(0.0%)
Gains on disposals of subsidiaries and affiliates, net	0.0%	0.0%	0.2%	0.8%
Unusual income	(0.1%)	0.2%	0.7%	1.5%
Amortization of goodwill	(0.1%)	(0.1%)	(0.1%)	(0.5%)
Income tax	(0.0%)	0.1%	0.0%	0.4%
Minority interests	(0.0%)	(0.0%)	(0.0%)	(0.0%)
Net Income (Loss)	0.8%	0.9%	1.2%	3.4%

Appendix 6.1
China Eastern
Statement of Intermediate Balances
(in RMB millions)

For the years ended December 31	2003	2002	2001	2000
Passenger	10261	10038	9587	8644
Cargo and mail	3187	2445	2092	2124
Other operating revenues	829	596	474	452
Total production for the period	14,277	13,079	12,153	11,220
Take-off and landing charges	(2,254)	(1,988)	(1,703)	(1,572)
Aircraft fuel	(3,045)	(2,564)	(2,613)	(2,327)
Food and beverages	(542)	(606)	(567)	(499)
Aircraft maintenance	(1,329)	(1,078)	(967)	(820)
Commissions	(465)	(380)	(487)	(645)
Other	(570)	(520)	(563)	(568)
Operating lease rentals (aircraft)	(1,048)	(1,026)	(925)	(769)
Operating lease rentals (land and buildings)	(46)	(99)	(90)	(83)
Office and administration	(1,058)	(1,044)	(849)	(724)
Consumption from third parties	(10,357)	(9,305)	(8,764)	(8,007)
Value added	3,920	3,774	3,389	3,213
Wages, salaries and benefits	(1,449)	(1,036)	(773)	(798)
Gross operating income	2,471	2,738	2,616	2,415
Rental income from operating subleases of aircraft	31	110	126	111
Aircraft depreciation	(1,803)	(1,429)	(1,479)	(1,399)
Other depreciation	(449)	(301)	(268)	(238)
Operating income	250	1,118	995	889
Finance costs, net	(712)	(731)	(814)	(814)
Exchange (loss)/gain, net	(70)	(38)	126	120
Share of results of associates before tax	(29)	(32)	5	(2)
Operating net income before taxes	(561)	317	312	193
Gain on disposal of aircraft and engines	(29)	116	2	112
Revaluation deficit of fixed assets	0	(171)	0	0
Unusual income	(29)	(55)	2	112
Taxation	(247)	(54)	261	(100)
Minority interests	(112)	(122)	(33)	(29)
Profit attributable to shareholders	(949)	86	542	176

Appendix 6.2
China Eastern
Statement of Intermediate Balances
(in percentage terms)

For the years ended December 31	2003	2002	2001	2000
Passenger	71.9%	76.7%	78.9%	77.0%
Cargo and mail	22.3%	18.7%	17.2%	18.9%
Other operating revenues	5.8%	4.6%	3.9%	4.0%
Total production for the period	100.0%	100.0%	100.0%	100.0%
Change in Production	9.2%	7.6%	8.3%	10.4%
Change in Passenger revenues	2.2%	4.7%	10.9%	7.6%
Change in Cargo revenues	30.3%	16.9%	(1.5%)	22.8%
Take-off and landing charges	(15.8%)	(15.2%)	(14.0%)	(14.0%)
Aircraft fuel	(21.3%)	(19.6%)	(21.5%)	(20.7%)
Food and beverages	(3.8%)	(4.6%)	(4.7%)	(4.4%)
Aircraft maintenance	(9.3%)	(8.2%)	(8.0%)	(7.3%)
Commissions	(3.3%)	(2.9%)	(4.0%)	(5.7%)
Other	(4.0%)	(4.0%)	(4.6%)	(5.1%)
Operating lease rentals (aircraft)	(7.3%)	(7.8%)	(7.6%)	(6.9%)
Operating lease rentals (land and buildings)	(0.3%)	(0.8%)	(0.7%)	(0.7%)
Office and administration	(7.4%)	(8.0%)	(7.0%)	(6.5%)
Consumption from third parties	(72.5%)	(71.1%)	(72.1%)	(71.4%)
Value added	27.5%	28.9%	27.9%	28.6%
Wages, salaries and benefits	(10.1%)	(7.9%)	(6.4%)	(7.1%)
Gross operating income	17.3%	20.9%	21.5%	21.5%
Rental income from operating subleases of aircraft	0.2%	0.8%	1.0%	1.0%
Aircraft depreciation	(12.6%)	(10.9%)	(12.2%)	(12.5%)
Other depreciation	(3.1%)	(2.3%)	(2.2%)	(2.1%)
Operating income	1.8%	8.5%	8.2%	7.9%
Finance costs, net	(5.0%)	(5.6%)	(6.7%)	(7.3%)
Exchange (loss)/gain, net	(0.5%)	(0.3%)	1.0%	1.1%
Share of results of associates before tax	(0.2%)	(0.2%)	0.0%	(0.0%)
Operating net income before taxes	(3.9%)	2.4%	2.6%	1.7%
Gain on disposal of aircraft and engines	(0.2%)	0.9%	0.0%	1.0%
Revaluation deficit of fixed assets	0.0%	(1.3%)	0.0%	0.0%
Unusual income	(0.2%)	(0.4%)	0.0%	1.0%
Taxation	(1.7%)	(0.4%)	2.1%	(0.9%)
Minority interests	(0.8%)	(0.9%)	(0.3%)	(0.3%)
Profit attributable to shareholders	(6.6%)	0.7%	4.5%	1.6%

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NOTES

¹ “Value added” should not be confused with “economic value added”, a term which is usually defined as operating income minus cost of capital employed.

² All companies have no reselling activity. Consequently, there is no commercial margin to compute.

³ The term “revenue passenger mile” is defined as a mile flown on each flight stage multiplied by the number of “revenue passengers” on that stage. A “revenue passenger” is a person receiving air transportation from the air carrier for which remuneration is received by the air carrier.

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Annual Reports

The annual reports of the three studied companies can be found as follows:

Southwest Air Lines: http://www.southwest.com/about_swa/financials/investor_relations_index.html

Air France:

http://www.airfrance-finance.com/investisseur/home_investisseur.asp?id_sous_rubrique=84&langue=_uk

China Eastern Airlines: http://www.ce-air.com/cea/en_US/investor/report

Table 1
Function of expense versus nature of expense presentations

Income statement by function (Vertical presentation)	Income statement by nature (Vertical presentation)
Net sales revenue - Cost of goods sold (cost of sales) = Gross margin - Commercial and distribution expenses - Administrative expenses - Other operating expenses = Operating income	Net sales + Other operating revenues - Cost of merchandise and raw materials sold and consumed - Labor and Personnel expenses - Other operating expenses - Depreciation expense = Operating income

Figure 1
Choices regarding the presentation of income statements

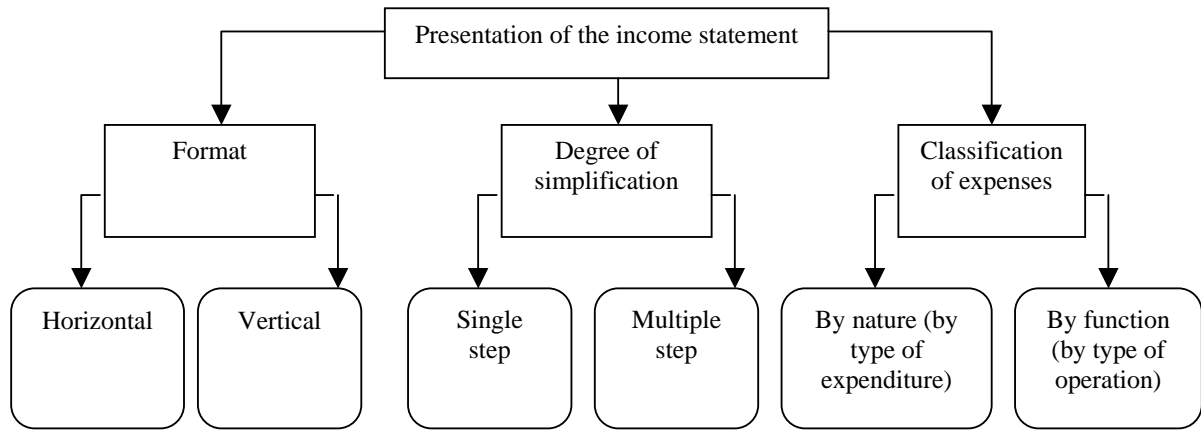


Figure 2
Structure of the Statement of Intermediate Balances

