International Journal of Business and Management; Vol. 11, No. 5; 2016
ISSN 1833-3850 E-ISSN 1833-8119
Published by Canadian Center of Science and Education

External VS. Internal Audit in the Accounting of Complex Contractual Instruments: A Survey on EU Firms

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Received: February 10, 2016 Accepted: March 7, 2016 Online Published: April 18, 2016

doi:10.5539/ijbm.v11n5p22 URL: http://dx.doi.org/10.5539/ijbm.v11n5p22

Abstract

This article aims at ascertain if external and independent audit can improve the reliability of IAS/IFRS financial statements with regard to the accounting of complex contractual instruments such as swing contracts for the sale and purchase of energy commodities. To this end, first of all the standard contents of the contracts at stake will be identified, based on those usually recurring in corporate practice. Then, it will be ascertained whether such contracts subtend an industrial usage only, so that the pertinent arrangement has to be accounted as a standard purchase/sale transaction, or whether the counterparts are pursuing financial intendments, since in such assumption the swing contract must be accounted as a financial instrument in accordance with IFRS 9/IAS 39. Conclusively, the modalities will be analysed which are used by a number of European companies whose typical activity is the purchase/sale of energy commodities, to account such kind of contracts. The survey aims at verify if the accounting modalities chosen by companies whose financial statements are subject to an external and independent audit (voluntarily or mandatorily pursuant to the applicable laws) are more compliant with the principle of faithful representation than those which are not subject to an external and independent audit.

Keywords: swing contracts, take-or-pay contracts, energy commodities, faithful representation, external audit, independent audit

1. Introduction and Study Objectives

Contracts containing a *swing* provision (also called *take-or-pay* or *variable base-load* contracts) are prolonged period agreements for the supply of goods/services which oblige the purchaser to pay, for each year of duration, the price of a pre-determined minimum quantity of the output which is the subject-matter of the purchase, also whether the purchaser should not withdraw it (irrespective of being the failure to withdraw attributable or not to the purchaser). In other words, a contractual provision of take-or-pay corresponds to a long term agreement where the purchaser undertakes, for each year, alternatively to: (1) take a minimum output as specified in the contract, and, at the same time, pay the corresponding price (agreed according to a specific contract); or (2) pay the price of the said minimum contractualised output but without taking it (Note 1).

Such clause is usually used in long term contracts for the selling and purchasing of commodities, and in particular of energy commodities (specifically crude oil, petrol by-products, gas and electrical energy). Indeed, traditionally such provision has a warranty purpose, together with the long term feature of the supply agreements, of the high long term investments made by the seller in productive power and freight. In connection with the considerable costs to build up the plants (power stations, plants to refine crude oil, pipeline, gas pipeline, plants to extract raw materials, etc.), in order to produce/extract or transport the sold commodities, the seller must be sure to realize, for each year of duration of the contract, a minimum flow of profits and cash-flows independently from the quantity of output which is effectively sold, in order to cover the amortisation of the said structural costs and repay the financial indebtedness, if any, incurred to finance the said investments. The take-or-pay provision, therefore, is a real risk allocation mechanism aiming at limiting the potential financial benefits of the buyer, who would benefit-otherwise-indirectly of the investments made by the seller, to obtain at the end almost the sharing of the said investment risks between the parties.

The absence of precise regulations in the *corpus* of the International Accounting Principles (IAS/IFRS) as well as in accounting literature relating to the accounting of contracts containing a swing provision, together with the remarkable elaborate legal frame of such arrangements, in the author's opinion lets a certain grade of incertitude in defining the proper methodologies to account such kind of contracts in the balance sheets of each contracting party in order to fulfill the principle of faithful representation stated in sections QC 12-16 of the IAS/IFRS Conceptual Framework (which has been designated by the International Accounting Standard Board as the guiding principle of the entire IAS/IFRS accounting model).

The aim of this article is preliminarily to single out, among the possible accounting methodologies of swing (take or pay) contracts for the selling and purchasing of energy commodities in IAS/IFRS balance sheets, the one which best comply with the principle of faithful representation, if necessary overcoming the formal framework of the agreement in order to focus on its substantial features. To this intent, it will be clarified whether the contractual commodity is exchanged for an industrial usage only, so that the pertinent agreement has to be accounted as a standard purchase/sale, or if the parties are pursuing effective financial intendments, since in the latter assumption the swing agreement has to be accounted as a financial instrument in accordance with IFRS 9/IAS 39 "Financial Instruments" (Note 2). Such theoretical-accounting analysis shall be made on the basis, and within the limits, of some standard features which specifically qualify swing contracts, given the fact that in the business practice the parties' freedom to determine the content of the contract could lead to exceptions to the typical features and radically change contents and scope (in such circumstances, therefore, an accurate analysis of the contract effectively in place between the parties shall be made in addition to the said general analysis). Obviously, the presence of the take-or-pay clause is a necessary and unmodifiable feature of the contracts at stake to the point they derives their name therefrom.

Finally, this article aims at ascertain if external audit (i.e. made by independent and certified auditors) can contribute to ensure the reliability of IAS/IFRS financial statements with regard to the accounting of swing contracts for the sale and purchase of energy commodities. Specifically it will be examined if the accounting modalities chosen by companies whose financial statements are subject to an external and independent audit (voluntarily or mandatorily pursuant to the applicable laws) are more compliant with the principle of faithful representation than those which are not subject to an external and independent audit. To this end, the paper shall analyse the methodologies to account such kinds of agreements, if and when drafted in compliance with the said standard features, which are adopted by a large sample of companies listed on European stock exchanges, or that, in any case, draw up their financial statements according to IAS/IFRS, and whose typical activity is the sale/purchase of energy commodities. 54% of companies in the sample subjects to external and independent audit its IAS/IFRS financial statements (either on a mandatory or voluntary basis) versus the remaining 46%.

The paper is divided into paragraphs. The following paragraph consists of a literature overview regarding the matter in hand. In the third paragraph, the standard content characterising the contracts at stake and frequently recurring in business practice will be singled out (it being understood that the parties' freedom to agree upon the content may deviate more or less widely from such standard form). In the fourth section, the circumstances will be analysed under which a swing agreement for the sale and purchase of energy commodities could subtend a financial instrument, consequently requiring to be accounted in compliance with the clauses of IFRS 9/IAS 39. The fifth paragraph reports the data collection and related analysis. The sixth section reports some final considerations on the topic at stake.

2. Literature Overview

The topic of the accounting of swing contracts for the sale/purchase of energy commodities in IAS/IFRS financial statements has not yet been analysed by international researchers and practitioners nor the International Accounting Standard Board has released any interpretations or general principles on the subject matter. However there are numerous references on partially related matters.

There are numerous contributions of the scholars concerning the analysis and the declination of the aforementioned principle of faithful representation of business transactions in IAS/IFRS financial statements (Barth, Landsman, & Lang, 2008; Ahmed, Neel, & Wang, 2013), and even more larger are the studies regarding the "substance over form" principle that though no longer referred explicitly in the Conceptual Framework (starting from the issue of 2010) is in any case evoked in all IAS/IFRS Standards, given the assumption that accounting information can provide a faithful representation of business phenomena only through the representation of the economic substance of the underlying transaction (Rayman, 2007; Whittington, 2008; Cairns, 2015).

With regard to the legal framework of swing agreements and their price structure, the researches drafted in the past years have identified their distinguishing matter (Polo & Scarpa, 2013; Angus, Kavali & Neuhoff, 2008; Holland & Ashley, 2008; Webb, 1991; Medina, McKenzie, & Daniel, 1996) and the mechanics to calculate the pricing structure of the take-or-pay clause (Edoli, Fiorenzani, Ravelli, & Vargiolu, 2013; Keppo, 2004; Kaiser &

Tumma, 2004; Jaillet, Ronn, & Tompaidis, 2004), as well as the methodologies to calculate production and transportation costs of energy commodities, like gas, oil, coal and electrical energy (Inderfurth & Kelle, 2011; Cartea & Villaplana, 2008; Kleindorfer & Wu, 2003).

Even larger are the studies of the scholars and researchers relating the modalities to estimate prices of this kind of goods on the international financial marketplaces (spot and futures markets), giving special carefulness to the measurement of the monetary value of options and futures and swap contracts (Woo, Olson, & Orans, 2004; Creti & Villeneuve, 2004; Avery, Brown, Rosenkranz, & Wood, 1992).

Some researchers (Celli, 2013; Hortacsu & Puller, 2008; Bleveans, 2000) and practitioners, as well as the best practice in this field (i.e., the International Energy Accounting Forum, which associates some of the main worldwide companies producing/utilising electrical energy and whose institutional scope is to provide opinions on the modalities to account in the financial statements transactions on energy commodities) have drafted a number of studies and surveys in order to integrate and explain the few and generic regulations stated by IAS/IFRS on the accounting of prolonged period agreements for the selling and purchasing of electrical energy (the so-called *capacity/tolling* contracts). Such supply contracts, notwithstanding they are substantially different from those at stake, have several common points, therefore may be taken partially as reference in this analysis.

3. Characteristics of Swing Contracts for the Sale/Purchase of Energy Commodities

As anticipated in the introduction, the base-feature of a swing contract is the obligation of the purchaser to pay, for each of duration, the price of a pre-determined minimum quantity of the output which is the subject-matter of the purchase, also whether the purchaser should not withdraw it (irrespective of being the failure to withdraw attributable or not to the purchaser). Moreover, such purchase obligation, which aims – as said above – at protecting the periodic expectations of profits of the seller, is part of a wider sale and purchase agreement of goods on a long term basis: with respect to such contracts the parties must determine, in addition to the characteristics of the take-or-pay clause (which is being analysed here below), also the additional mandatory provisions, such as the quantity of yearly output supply, the modalities to determine the price, places and modalities of delivery of the goods, etc.

Therefore, having been stated that the contents of a swing agreement for the selling and purchasing of energy commodities are definitely connected to the counterparts' requirements and that the presence of the take-or-pay clause is strictly necessary to qualify as such the contracts at stake, a significant part of scholars (Glachant & Hallack, 2009; O'Neill, 2009; Longstaff & Wang, 2004; D'Souza & Jacob, 2001; Medina, 1991; Masten & Crocker, 1995) and the legal practice in this sector (Rogers & White, 2013; Polkinghorne, 2013; Ross & Zhu, 2008; Saussier, 1999) have identified the main characteristics listed below in order to draft a standard framework for the agreements at stake (specifically, the features of the take-or-pay clause and of the other provisions linked to such clause).

Duration. Normally, the duration of this kind of supply agreements approximates accurately the operational life of the pertinent production plants.

Take or pay percentage. Generally, the take-or-pay commitment (i.e. *top-quantity*) is calculated as a percentage of the production volume to be sold *ex contractu* for each year, under ordinary management activities (the higher is such percentage, the bigger is the cash flow guaranteed to the seller). The difference between the quantity actually taken by the buyer during the year and the corresponding top-quantity will form the basis of a deficiency quantity for which the buyer becomes obligated to make a take-or-pay payment to the seller at the end of that year. Often, the top-quantity is not fixed but is adjusted to oppose to facts occurred during the year and depending or not on the parties' will (the take-or-pay percentage normally applied to the natural gas supply agreements, for instance, varies from 75% to 95% of the yearly output under the contract).

Adjustments. As already said above, such feature involves facts and circumstances set out in the contract that, if they occur, may result in a reduction of the top-quantity. Such adjustments may be caused by: (a) the seller did not made available for delivery the relevant products either for reasons due to the same seller or to force majeure events; (b) the buyer refused the products delivered by the seller as non-compliant with the quality standards set out in the contract; (c) the buyer cannot withdraw the products due to force majeure.

Periodicity. The frequency of application (monthly, quarterly or yearly) defines the periodicity of the imposition of the swing obligation on the buyer. Longer periods provide additional flexibility to the buyer and, therefore, less warranty for the seller.

Make-up clause. This provision gives the buyer the possibility to withdraw the quantity of output subject to the take-or-pay mechanism (therefore output already paid, but not yet withdraw by the buyer) also in years subsequent to the reference one, without any penalty. Furthermore, such make-up can be applied only after the buyer has first taken the top quantity for that year; this preserves the seller's assured annual revenue stream. Usually, such right has to be exercised within a given deadline, under penalty of forfeiture.

Carry forward clause. This provision is opposite to the aforementioned make-up clause and allows the buyer, with respect to each year, to withdraw a quantity of products higher than the amount agreed in the contract, given the possibility to offset the amount in excess with smaller quantities to be withdrawn in the following years (including with respect to what is agreed upon in the take-or-pay clause).

Delivery placements. The places where the output must be delivered are listed out expressly and may be located at the seller's or buyer's premises; trading/market hubs may be also specified in the agreement as delivery locations.

Pricing structure. The agreement may provide that the price shall be agreed upon at the time the take-or-pay obligation must be fulfilled, and remains the same for the entire duration of the agreement (i.e. strike price, proportional to the amount of commodity purchased), or it may allow for a partial or full adjustment, should the prevailing price be different at the time the product/service is actually taken. The contract thus provides for some protection against the day-to-day price fluctuations from inception to expiration of the contract. Protection is full if the strike price agreed upon is fixed when entering into the contract; protection is only partial, if the strike price is linked to the value of the spot price at the beginning of such period. Alternatively, it may provide for a two-stage payment: a certain percentage at the time of payment and the rest at the time of taking.

4. The Accounting of Swing Contracts for the Sale and Purchase of Energy Commodities

As highlighted in the previous section, the provisions of a swing contract for the selling and purchasing of energy commodities are definitely connected to the counterparts' agreements, which could amend and supplement the above-mentioned standard form in a more or less significant way. Accordingly, it is appropriate to assess, on a case by case basis, if and when a determined deal of energy commodities is purchased/sold for an industrial usage only, with the pertinent contract to be accounted as a standard commercial transaction (Note 3) in the balance sheet, or whether the counterparts are pursuing financial intendments, since in the latter assumption, the take-or-pay agreement must be accounted as a financial instrument in accordance with IFRS 9/IAS 39 "Financial Instruments".

However, in author's opinion it is evident that the typical provisions analysed in the previous section (in particular the take-or-pay clause, which is strictly necessary to qualify as such the contracts at stake) that jointly shape the aforesaid standard form, are potentially suitable to support trading strategies and not only industrial purposes. Specifically, the main and indispensable features of a swing contract for the sale and purchase of energy commodities fully satisfies the *objective* conditions to apply IAS 39/IFRS 9 (paragraph 6, chapter "Scope"), according to which (literally):

1) "The good to be sold or acquired is quickly exchangeable into cash;

2) The agreements let the counterparts to settle each contractual requirement on a differential basis by a spread in cash or another financial instrument, thus without effective delivery of the good subject matter of the agreement (the so-called *net settlement* or *net liquidation*);

3) Though the chance to net-settle the contract in cash or another financial instrument, or by exchanging financial instruments, is not definitely pointed out in the arrangements, there is a steady former praxis of resolving analogous agreements in cash or through another financial instrument or by fulfilling offsetting agreements with arbitrage purpose."

With specific reference to the first two conditions, which must be considered decisive for the purposes of this theoretical-accounting analysis (condition under item 3, instead, has a residual importance, as it refers to past commercial practices effectively applied by the contracting parties and therefore requires to be analysed on a case by case basis in order to verify its existence), the readily convertible to cash condition is always met given the fact that the commodities in general (Note 4), and energy commodities in particular, satisfy the requirements set out in this respect by the United States Generally Accepted Accounting Principles (US GAAP) (Note 5) at paragraphs 10-20 of ASC 815 (ex SFAS 133) *Accounting for derivative instruments and hedging activities*, in order for a product to become readily convertible to cash:

a) Fungibility, that is, the products (as well as an agreement for the selling and purchasing of products) can be fully replaced by other products of the same classification, since there are no significant differences from a qualitative point of view;

b) Negotiability in an “active” marketplace, that is a domestic and/or international regulated marketplace in which exchanged goods are fully comparable, the prices for spot and future contracts can be easily and quickly deducted from a public archive and are drafted on the basis of official and recurrent negotiations (IAS 36, paragraph 6);

c) Insignificant transaction fees (not more than 9% of the monetary worth of the traded goods – IEAF, 2005) to be borne in order to turn into cash the contractual output.

Moreover, also the aforementioned objective condition No. 2 (i.e. the agreement permits the counterparts to net-settle each arranged requirement) is always fulfilled in a swing contract. Such feature, indeed, cannot be considered a standard element or, however, merely recurring in the kind of contracts at stake, and therefore as such modifiable by the contracting parties’ arrangements, given that - if it is not present or it is modified at the point to change radically the purposes analysed in section 3 of this article the contract can no longer be qualified as a swing contract. In other words, the possibility to resolve each arranged requirement by a spread in cash or other financial means, consequently without the material consignment of the contractual output, not only must be precisely pointed out in the agreement but is also the essence of a take-or-pay contract.

Furthermore, the fact that the standard characteristics of a swing contract for the sale and purchase of energy commodities always match the aforementioned *objective* conditions No. 1 and 2 to execute the provisions of IAS 39/IFRS 9, it is not an irrefutable evidence that such agreement is in practice entered into for a trading purpose and not for an industrial one, hence being a mandatory requirement but not a condition sufficient to account at fair value the whole agreement. For such purpose it is imperative to verify, case by case, if and to which extent such contract fulfils the two *subjective* conditions of chapter “Scope”, paragraph 5, of IFRS 9/IAS 39, which exonerate from the appliance of IAS 39/IFRS 9 rules to the agreement (notwithstanding the occurrence of the said objective conditions):

1) The effectual will of the counterparts to have the physical consignment of the arranged deal of goods instead of the financial liquidation of the contract. On this purpose, any actual management’s intention (as supported by formal plans) must be confirmed by a retrograde verification, in order to assess the lack of a former praxis of net settlement of similar contracts (therefore recalling the objective condition No. 3 for the appliance of IAS 39/IFRS 9, which were referred to above) by cash or other financial means, otherwise by arranging offsetting agreements with arbitrage purpose. Differently the management’s plan to consign/collect effectively the deal of goods specified in the contract can not be assumed as trustworthy (Note 6);

2) The effectual will of the counterparts to have a physical settlement of the contract and adjusting the amount of goods originally arranged to the supervening industrial/commercial requirements of each counterpart (the above mentioned *own-use exemption*) through partial liquidation arrangements or offsetting agreements (current international practice sets a range of volumes within 20% - IEAF, 2005), but without settling the entire contract by cash or other financial instrument (Teixeira Lopes, 2007; Celli, 2013).

5. Study Design and Results

5.1 Research Methodology and Data Design

In order to ascertain the effective modalities to account swing contracts for the selling and purchasing of energy commodities (specifically, crude oil, petrol by-products, gas and electric energy) in the financial statements of companies having the registered office in some Countries of the European Union, listed on regulated markets or that, anyway, draft their financial statements in accordance with IAS/IFRS, the following survey has been carried out with reference to the contracts of such kind aiming at regulating:

- the purchase of big quantities of energy commodities produced in plants/structures having origin inside and/or outside Europe, made by companies listed on European regulated markets and/or companies which – in any event – draft their balance sheets in compliance with IAS/IFRS accounting principles;

- the purchase of big quantities of energy commodities produced in productions/refinement plants inside and/or outside Europe, made by companies listed on European stock exchanges and/or companies which – in any event – draft their balance sheets in compliance with IAS/IFRS accounting principles;

- the sales of big quantities of energy commodities made by businesses listed on European stock exchanges and/or companies which – in any event – draft their balance sheets in compliance with IAS/IFRS accounting principles.

In order to gather the data required for this survey, it has been sent a questionnaire to 146 businesses listed on European stock exchanges, or to companies having the registered office in European Countries and which – in any event – draft their balance sheets in compliance with IAS/IFRS accounting principles, and that, pursuant to their typical activity, buy/sell significant quantities of energy commodities. The companies included in the survey have been taken from the lists of the relevant trade associations, from the Exchange lists of each of the examined Countries and from specialized magazines (in particular, "Oil and Gas Journal", "The Electricity Journal" and "The Energy Journal").

Specifically, the geographical distribution of the companies representing the sample is: Italy (no. 23 companies); France (no. 21 companies); Spain (no. 11 companies); United Kingdom (no. 25 companies); Portugal (no. 6 companies); Germany (no. 22 companies); The Netherlands (no. 9 companies); Denmark (no. 8 companies); Sweden (no. 7 companies); Greece (no. 8 companies); Finland (no. 6 companies). With respect to each Country we have contacted all companies whose core business is the sale/purchase of significant quantities of energy commodities and that have been selected on the basis of the aforementioned sources.

The questions in the questionnaire point at verifying:

(1) If the company has entered into swing agreements for the selling and purchasing of energy commodities having the features analysed in the fourth paragraph of this article;

(2) If the existing agreements fulfill or less the *subjective* condition for the exemption from the appliance of IAS 39/IFRS 9 provisions to the contracts (i.e. the effective intention to have the physical consignment of the arranged quantity of commodities instead of having the financial liquidation of the contract, as analysed in the fifth paragraph of this article);

(3) The accounting procedure adopted by the company to enter such transactions in their financial statements, and so:

(a) As a standard sale/purchase transaction;

(b) In accordance with IFRS 9/IAS 39 "Financial Instruments".

(4) If the company's IAS/IFRS financial statements are certified (voluntarily or mandatorily pursuant to the applicable laws) by external and independent auditors.

5.2 Data Collection and Results

Out of the 146 questionnaires sent to the companies, 52 have been completed and returned to the sender. With regard to such firms:

- 11 companies have stated that they have not executed swing agreements for the sale/purchase of energy commodities in their typical content (that is the one corresponding to the standard characteristics analysed in section 4 of this article, specifically with reference to the duration of contracts, to the purchased quantities and to the modalities to determine the cash consideration);
- 41 companies have stated that they have executed swing agreements for the sale/purchase of energy commodities having the aforementioned standard features.

Among these 41 companies:

a) 18 companies have accounted the contracts at stake in accordance with the provisions of IFRS 9/IAS 39. All these businesses declared to intend effectively to have the net settlement of the agreements rather than the physical delivery of the arranged deal of energy commodities. Among these 18 companies:

a.1) 16 (89%) do have external and independent audit on their IAS/IFRS financial statements (voluntarily or mandatorily pursuant to the applicable laws);

a.2) 2 (11%) do not have external and independent audit on their IAS/IFRS financial statements.

b) 23 companies have accounted the contracts at stake as standard purchase/sale. Between these 23 businesses:

b.1) 6 companies declared to intend effectively to have the physical settlement of the contracts. Therefore these companies fulfill the subjective condition for the exemption from the appliance of IAS 39/IFRS 9 provisions to the agreements;

b.2) 17 companies declared to do not intend effectively to have the physical settlement of the contracts. Therefore these businesses do *not* fulfill the subjective conditions for the exemption from the appliance of IAS 39/IFRS 9 provisions to the agreements. Among these 17 companies:

b.2.1) none is legally obliged to be subject to independent audit;

b.2.2) 1 (6%) has voluntarily chosen the independent audit;

b.2.3) 16 (94%) are not subject to independent audit.

In conclusion, it has been ascertained that No. 17 companies in the survey account swing contracts for the selling and purchasing of energy commodities as a standard purchase/sale transaction notwithstanding such agreements are effective tools to back up effectual trading rather than industrial intendments. Such companies, indeed, declared to do not intend effectively to have the physical consignment of the arranged deal of commodities and so they do *not* fulfill the subjective conditions for the exemption from the appliance of IAS 39/IFRS 9 provisions to the agreements. Such accounting methodology, according to the thesis discussed in the previous paragraph, is not suitable – in the author's view – to guarantee the faithful representation of a swing agreement for the sale/purchase of energy commodities (in its standard content) in a balance sheet drafted pursuant to IAS/IFRS.

Obviously, it must be highlighted that any valuation on the correctness or not of the conduct of the analysed companies in accounting swing contracts is compulsorily subject to the full compliance of the said contracts to the standard form analysed in section 4 above. Should such requirement not be met, and, therefore, should the content of the contracts entered into be actually different, in a more or less evident way, from the said typical contents, it would not be possible to give any opinion in general, but, rather, it would be necessary to analyse case-by-case the features of the supply contract actually entered into.

6. Discussion and Conclusions

The aim of this article was to ascertain if external audit (i.e. made by independent and certified auditors) can contribute to improve the reliability of IAS/IFRS financial statements with regard to the accounting of swing contracts for the sale and purchase of energy commodities. Specifically, it has been examined if the accounting modalities chosen by companies whose financial statements are subject to an external and independent audit (voluntarily or mandatorily pursuant to the applicable laws) are more compliant with the principle of faithful representation than those which are not subject to an external and independent audit.

To this end we have preliminarily singled out, among the possible accounting methodologies of the complex contracts at stake, the one which best comply with the principle of faithful representation, if necessary overcoming the formal framework of the agreement in order to focus on its substantial features. To this aim, it has been clarified whether a swing contract for the selling/purchasing of a specific deal of energy commodities has been set for industrial uses only, so that the pertinent agreement has to be accounted as a standard purchase/sale transaction, or whether the counterparts are pursuing financial intendments, since in the latter assumption the swing agreement is to be accounted as a financial instrument in accordance with IFRS 9/IAS 39 "Financial Instruments". Such theoretical-accounting analysis has been made on the basis, and within the limits, of some standard features usually recurring in corporate practice (pointed out in section 3 of this article) and which specifically qualify the swing contracts at stake. Finally the modalities to account such kinds of contracts (if and when drafted in compliance with the said standard form) which are used by a number of companies that draw up their financial statements according to IAS/IFRS and whose typical activity is the sale/purchase of energy commodities, have been recognized.

The study has clearly demonstrated that swing contracts for the sale/purchase of energy commodities, due to the take-or-pay clause, are potentially suitable to support trading strategies and not only industrial purposes, given the fact that they fully satisfy the objective conditions to apply IFRS 9/IAS 39 (paragraph 6, chapter "Scope", points 1) and 2). Therefore, the contracts at stake should be accounted in the balance sheet in the same way as derivative financial instruments, unless there are the subjective conditions to be exonerated from the appliance of IFRS 9/IAS 39 (paragraph 5, chapter "Scope").

Obviously, as remarked above, the aforementioned standard form is only one of the possible contractual models of a swing contract for the purchase/sale of energy commodities (even if it is very used in business practice). Therefore taking into account that the parties are free to agree upon more or less significant exceptions, amendments and supplements which may also change radically the said typical contents and scope (with the sole exception of the take or pay clause, which remains a fundamental and necessary requirement of the contracts at stake), in addition to the said general analysis it is necessary to evaluate case-by-case if, and eventually to which extent, the contract for the purchase/sale of energy commodities actually falls into the ambit of application of IFRS 9/IAS 39 or is a standard purchase/sale transaction.

Subsequently, it has been empirically ascertained that, among the 41 European companies in the survey which have attested that they have executed swing agreements for the sale/purchase of energy commodities having the standard features analysed in this article:

- 18 (44%) companies account the contracts at stake as financial instruments in accordance with the rules set by IFRS 9/IAS 39. Given that all the 18 companies declare to have the effective aim to have the net settlement of the agreements rather than the physical consignment of the arranged deal of commodities, according to the thesis discussed in this article the said accounting methodology must be considered - in the author's view - correct;
- 6 (15%) companies account the contracts at stake as a normal purchase/sale and declare to have the effective intention to make the physical settlement of the agreements. Given that such companies fulfill the *subjective* conditions for the exemption from the application of IAS 39/IFRS 9 provisions to the agreements (as specified in the fifth paragraph of this article), this accounting methodology must be considered - in the author's view - correct;
- 17 (41%) companies account the contracts at stake as normal purchase/sale but declare to do not intend effectively to have the physical settlement of the agreements. These companies *do not* fulfill the aforementioned subjective conditions for the exemption from the appliance of IAS 39/IFRS 9 provisions to the agreements, and so the accounting methodology chosen by such companies is not suitable – according to the thesis discussed in this article – to guarantee the faithful representation of swing agreements for the selling and purchasing of energy commodities (in their standard content) in a financial statements drafted pursuant to IAS/IFRS.

For the purposes of this analysis it is of primary importance highlighting that of the aforementioned 17 companies accounting in the wrong way – in the author's view – the swing contracts at stake, as many as 16 companies (94%) do not have external audit on their IAS/IFRS financial statements, whereas 1 company (6%) do have external and independent audit on their IAS/IFRS financial statements (voluntarily or mandatorily pursuant to the applicable laws). Conversely, of the aforementioned 18 companies that account the contracts at stake as financial instruments in accordance with IFRS 9/IAS 39, as many as 16 companies (89%) have an external and independent audit on their IAS/IFRS financial statements (either on a mandatory or voluntary basis).

Obviously, it has not been possible to make the assessment in the course of the empiric survey discussed in this article. In particular it has not been possible to ascertain whether the purpose of the counterparts to get the effective physical consignment of the arranged deal of commodities (instead of having the net settlement of the contract), clearly resulting from the accounting of the transactions as normal purchase/sale, has been actually implemented. In any event, it has been "surprisingly" noticed that up to 23 companies, notwithstanding they had entered into contracts for the sale and/or purchase of energy commodities which would permit the counterparts to off-set each arranged commitment through a spread in cash or another financial instrument, thus without the physical consignment of the commodity subject matter of the agreement, have then decided for the non-exercise of such option (which is, the qualifying and necessary feature of the contracts at stake).

Conclusively, the findings presented in this study confirm the importance of the role of the external audit (i.e. the audit carried out by independent and certified auditors) in granting the reliability and the qualitative characteristics of financial statements drafted pursuant to IAS/IFRS. The article also highlights that considering a swing agreement for the selling and/or purchasing of energy commodities in the same way as financial instrument or as a normal purchase/sale is not just a purely formal matter relating to the process of drafting a balance sheet under IAS/IFRS, rather it has an impact, potentially very significant, on the overall outcomes of the entities involved in the transaction. For this reason, it would be advisable that the competent international accounting bodies give their opinion on the matter discussed in this article, also – if needed – supplementing the existing standards or issuing appropriate explanatory documents (Ifric) on such standards.

7. Limitations and Recommendations

This study has some limitations, like other empirical studies with a similar research methodology. Specifically, all the companies included in the survey have not made available, for confidentiality reasons, the swing contracts actually entered into; thus it was not possible for the author to verify the correctness of the data provided in the questionnaires. In this respect, it was not possible to expand/confirm information taken from the questionnaires through the analysis of the balance sheet of such companies, as-in the light of the examination carried out by the author on the entire sample, none of them gives thorough detailed information in relation to such contracts.

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Notes

Note 1. Differently from the typology of contracts analysed in this article, under a take-*and*-pay contract (i.e. *requirements contract*) the purchaser must withdraw the full yearly output of the purchased contract, with no exceptions. Should the purchaser be in breach of such obligation, it could be sued and be liable for the damages caused to the seller (Deng, Johnson, & Sogomonian, 2001).

Note 2. In October 2010, IASB issued the accounting standard IFRS 9 "Financial Instruments" which should have replaced IAS 39 starting from 1 January 2015 (the original effective date of the project IFRS 9 was 1

January 2013). However, on November 2013 IASB amended IFRS 9 to include a new general hedge accounting model and a new impairment model (and finalisation of any limited amendments to classification and measurement), and so removed the 1 January 2015 as effective date. The final version of IFRS 9 has been issued by IASB on July 2014, and the new effective date has been definitely set on 1 January 2018. In any case, it has to be noted that those provisions of IFRS 9 (chapter 2 "Scope") which are going to be analysed in this article are entirely taken, with no changes, from chapter 2 "Scope" (paragraphs 2-7) of IAS 39.

Note 3. Under current IAS/IFRS (specifically, IAS 18 "Revenues"), revenues and expenses are recognized as follows:

a) For volumes taken. When the volumes of the product concerned are actually delivered and they are measured at the applicable price at that time (e.g. market price or contract price, as specified in the contract);

b) For volumes not taken but paid for. When the customer is not entitled to future recovery of the product paid for, but not taken, revenues and expenses are recognized when the payment is due from the customer; when the customer is entitled to apply the payments made in relation to unused product to future deliveries of product, the amount paid by the customer is recognized as deferred revenue/expense, and is recognized as revenue/expense either when the payment is applied to future deliveries or the right to apply the payment to such deliveries expires unused (Woo, Horowitz, Horjj, Orans, & Zarnikau, 2012; Barth, Landsman, & Lang, 2008).

Moreover, IASB is currently reviewing IAS 18 "Revenues". The new version of the Standard (actually known as *Revenue Recognition Project – IFRS 15 Revenue from contracts with customers*) will apply to annual periods beginning on or after 1 January 2018. Having stated that the content of the new IFRS 15 is still subject to amendments, in any case the base features of the new Standard are the following: a) Segmentation of the contract (i.e. identification of the single performance obligations in the supply contract). Specifically, if the enterprise undertakes to transfer goods and services under the same contract, the delivery of each good or the supply of each service are separate performance obligations; b) Definition of the transaction price; c) Allocation of the transaction price to each performance obligations according to the *stand-alone selling price* (i.e. of the price the goods would have been sold on the basis of an autonomous negotiation); d) Accounting data of the proceeds at the same time of fulfillment of each performance obligation (i.e. at the time in which control over the good/service is transferred).

Note 4. The term commodity refers to a fungible good, i.e. whose kind is not different from competitors' products marketed on the same market and which can be therefore replaced with any other good belonging to the same product category. Due to such features, the "identity" of the producer becomes of minor interest for a potential buyer; furthermore they confirm that the price of a given commodity is only set by the market.

Note 5. Paragraphs 10-12 of IAS 8 state that in the lack of specific provisions in the *corpus* of IAS/IFRS Standards or Interpretations with reference to specific topics (like the conditions at stake), the management may consider the most recent pronouncements of other standard-setting boards that use similar IAS/IFRS Conceptual Framework to issue domestic accounting standards, as well as other accounting literature and accepted industry practices, to the extent that they do not conflict with: (1) the requirements in IFRSs (and Interpretations) dealing with similar and/or related issues; (2) the definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses stated in the Framework (Barth, Landsman, Lang, & Williams, 2012; Churyk, Reinstein, & Gross, 2010).

Note 6. Moreover, if during the term of the contract, the management of one of the parties should change the intention to have a physical delivery of the output, due to changes of strategy as such or to fluctuations of market conditions (e.g., different levels of expected demand, price lists, etc.), preferring the net settlement of the contract, it should be verified *ex novo* whether the subjective (and objective) conditions are met, in order to determine the applicability or not of the provisions of IAS 39/IFRS 9 to the entire swing contract and, should such conditions not being met, even only partially, the entire swing contract should not be accounted according to the said standard (Teixeira Lopes, 2007).