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GESELLSCHAFT FÜR FINANZWIRTSCHAFT IN DER UNTERNEHMENSFÜHRUNG E.V.
GERMAN FINANCIAL EXECUTIVES INSTITUTE

Deutsches Rechnungslegungs
Standards Committee e.V.
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PAAinE Discussion Paper on Revenue Recognition – Effects on the Chemical Industry

Dear Mrs. Kühne:

We appreciate the initiative to structure the existing views on revenue recognition aiming for a principle-based approach to eliminate the existing inconsistencies. We especially agree that it is important to have a kind of “proactive” initiative which gives room for an extensive exchange of ideas and views.

We focus our comments primarily on questions 6 et sqq., giving our thoughts with regard to the specifics of the Chemical Industry, drawing up consequences we see while applying the illustrated approaches. IASB’s current orientation towards a more stringent application of the asset-liability-theory will have repercussions on the international techniques of revenue recognition. Not the transfer of goods or services to market, as a reliable evidence of the earnings process, but changes in assets and liabilities will trigger recognition of revenues. Primarily we focus our attention on the Continuous Approach, because this approach can cause severe measurement difficulties with regard to practicability and reliability. In illustrating these implications we hope that this can be seen as a contribution to reconsider aspects related to the above mentioned approach. Thus the illustrative examples should underline major effects on real-life accounting. We believe that a critical review of the suggestions in connection with the accounting theories and the IASB’s decision-usefulness approach should be done.

1. Background of the discussion paper

The “Revenue Recognition Project” is a joint project of IASB and FASB that was launched in the year 2002 with the purpose to eliminate existing inconsistencies, fill voids that have emerged and provide guidance in addressing issues that may arise in the future. As a result the two relevant standards in this context, IAS 11 and IAS 18, shall be replaced by a comprehensive set of conceptually-based principles that can be applied to all types of transactions and in all circumstances and would produce high-quality accounting information. Based on the frameworks of both standard

setters, it is the common understanding that revenue is defined as measurable changes in assets and liabilities.

The discussion paper has been issued by the DRSC, the EFRAG and the CNC (French Standard-setter). It has been approved by the Co-ordinating Group of PAAinE ('Proactive Accounting Activities in Europe'), whose objective it is to stimulate debate on important items on the IASB agenda in the standard-setting process. The working definition of revenue in the Discussion Paper is the gross inflow of economic benefits that arises as an entity carries out activities pursuant to a contract with a customer.

The two approaches illustrated in the Discussion Paper to account for revenue as soon as it is measurable as a change in assets and liabilities are the Critical events approach (similar to IAS 18) and the Continuous Approach (similar to IAS 11). The latter is preferred by the DRSC, whereas the EFRAG and the CNC have decided not to state a preference. The purpose of this analysis is to assess the implications of the adoption of the Continuous Approach for the Chemical Industry.

2. Critical Events Approach (similar to IAS 18)

Under this approach, no revenue arises under a contract until a particular event or threshold in the contract (the critical event) has been reached. The supplier has to fulfill its performance obligations arising under the contract with a customer.

Approach A: Supplier fulfills all performance obligations

This approach is easy to apply and suitable for the majority of transactions. However, no revenue will arise on a long-term construction contract or a multiple-element arrangement during the production process or until the whole obligation has been fulfilled. Therefore this approach is only satisfactory when contract completion is almost instantaneous and will be less satisfactory when the contract takes a longer time to complete or with regard to complex transactions.

Approach B: Supplier fulfills all performance obligations under a part-contract

For complex transactions precise contractual terms could lead to much earlier revenue recognition than application of approach A. This approach is satisfactory also for long-term contracts but it might be a challenge to identify the terms that segregate a contract into part-contracts.

A problem of approach A and B is also that contractual terms and legal wording of contracts often differ from the economic reality. In the case of long-term contracts without explicit segmentation into part-contracts it does not reflect the economic substance to recognize no revenue until the whole contract is completed.

Approach C: Supplier substantively fulfills performance obligation of part-contract

Approach C implies disaggregating of the contract by breaking it down into items of part-output that have value to the customer. Part-output has to be usable by the customer for its intended purpose or sellable at a price that reflects its worth when used for that intended purpose. Approach C could lead to similar results as the Continuous Approach.

3. Continuous Approach (similar to IAS 11)

Under this approach (**Approach D**) revenue arises continuously over the course of the contract as the contract progresses and the supplier performs (comparable to the Percentage-of-Completion-Method). Potential measures of contract progression towards performance could be the cost incurred by the supplier, reduction of risks inherent in the contract by the supplier, the value of the goods created or the passage of time.

4. Characteristics of the Chemical Industry

The Chemical Industry can be characterized by

- significant values of property, plant and equipment,
- mostly continuous 24 hours production processes and therefore the need for a high turnover of inventories,
- value adding chains where starting from raw materials in several production steps a big number of products are generated,
- precursor products, that are also marketed as finished goods and therefore the differentiation between finished and unfinished goods is not meaningful in the Chemical Industry,
- substitution opportunities during the production circle as well as combined production.

Long-term construction contracts for chemicals plants are supplied to and services rendered to customers, but these activities are not of major significance for the overall Chemical Industry and therefore not in the focus of this analysis.

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5. Revenue recognition for the sale of goods in the Chemical Industry

Transaction type	Critical Events Approach	Continuous Approach
Sale of goods that are in stock with delivery at a later date, no storage activity	No revenue will arise until the goods are delivered , at which point all of the revenue will arise.	Revenue relating to the sale of goods will arise immediately and the revenue relating to the delivery will be recognized on delivery.
Sale of goods that need to be manufactured with delivery at a later date, no storage activity	Under approaches A and B , revenue will arise at delivery . Under approach C it is possible that revenue might arise at various points during the manufacturing process .	Revenue relating to the goods sold will arise as the manufacturing process progresses and the revenue relating to the delivery will be recognized on delivery.

The accounting treatment proposed by the discussion paper would mean that the order backlog would become an important factor for business performance and accounting.

As long as there exists no measurement concept underlying to the above mentioned approaches (Critical Event vs. Continuous Approach), like a full fair value measurement of rights and obligations at any time or a measurement principle linked to allocated customer consideration amounts, an evaluation of the recognition approaches can not be done in its entirety. However, regardless of the measurement of any incomplete revenue elements the following statements relating primarily to the Continuous Approach could be made:

1. for all existing sales contracts revenue would arise as far as sufficient quantities of the products are in stock to fulfill the order
2. for the remaining binding orders not covered by already existing product quantities, revenue would be based on the status of the manufacturing process.

6. Implications of the Continuous Approach for the Chemical Industry

For the portion of the sales contracts covered by sufficient stock of product the prices agreed with the customers would be the basis for the valuation of the inventories, reduced by any future cost to be incurred for internal transportation and delivery to the customer. Therefore the order backlog would need to be monitored in detail to value the stock based on the planned delivery date or based on assumptions like first

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in - first out, with the prices of the orders taken in first forming the basis for the valuation of the inventories.

An assumption would need to be made whether the whole quantity of a chemical product would be treated as readily available for customer delivery or a portion would need to be treated as precursors for following production steps in the value adding chain.

In the case of a drop of market prices for these products, this approach could also lead to a situation with these inventories being measured above current market value. Or would they no longer be presented on the balance sheet as inventories but as quasi-receivables?

For the second portion from the split of the order backlog the complexities would be even higher. Typical for the Chemical Industry is the coupled production of main products and by-products in the chemical processes involving a lot of steps and intermediate products. The distinction between finished products and goods in progress is difficult and in most cases not possible without assumptions. However, the Continuous Approach would theoretically require recognition of revenue after each production step. This could also involve chemical substances not being marketed by the company or where no sales contracts exist. It would be necessary

- to break down the contract volumes for the final products and assign it to the precursor products on the various production process levels,
- to take into account the expected costs until contract completion and
- to make assumptions with regard to the future production program to satisfy the necessary supply of ordered products and precursors for these products.

When the products are replaced in the following period by the new production output, the portions of order values have to be calculated again and allocated to the various levels of precursor products. A practical solution to this would be to value the finished and unfinished goods based on net realizable market value with certain fixed allocation formulas and assumed cost to be incurred until completion. In principle this would lead to a valuation based on fair value, similar to the net realizable value, but higher than the production cost. This would mean that fair value would become the measurement basis through the backdoor of revenue recognition.

Furthermore the Continuous Approach is vulnerable with regard to potential manipulation of inventory values and profits. As the Continuous Approach is not based on the existence of delivery and a claim against the customer, revenue amounts recognized might subsequently be adjusted. Due to all the necessary

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assumptions and cost estimates, involved complexity would be high and reliability low. Therefore the room for potential manipulation would be huge.

Another point of criticism is that in general local tax rules have stricter revenue recognition principles similar to approach A. This would mean that the companies would still follow the Critical Events Approach, accounting for revenue when the products are delivered and the invoices are sent to the customers during their daily business in consistency with their logistic and IT systems. On top of that the companies in the Chemical Industry would need to establish complex and expensive systems for calculating the necessary deferrals and adjustments at the end of a quarter and year end to be in line with the Continuous Approach under IFRS. Due to the high turnover in the Chemical Industry, the impact on earnings would normally not be very significant.

7. Conclusions

From our point of view, no improvement would be achieved by applying the Continuous Approach to all kinds of transactions in different industries. On the contrary the resulting cost and workload in the Chemical Industry would be out of proportion to the benefits with regard to relevance and decision usefulness for investors. The Continuous Approach would also introduce the fair value measurement of inventories through the backdoor of revenue recognition, as well as increasing complexity and reducing reliability of accounting.

It seems also to be an illusion to have one principle for all revenue recognition issues, because also under the Continuous Approach the Discussion Paper gives guidance to the various types of contracts for the delivery of goods and providing of services. The accountants need clear principles and guidance with regard to revenue recognition as in IAS 11 and IAS 18.

Our suggestion is to develop an appropriate Critical Events Approach with approach A remaining the principle for normal delivery of goods without any revenue recognition in the course of production for intermediate products. For multiple-element arrangements a split up in part-contracts is economically necessary, based on principles that can be implemented and adopted consistently. In our view the above mentioned problems are related to another point which is not yet discussed so broadly: the concept of the unit of account. If revenue recognition could be connected to certain units of accounts the problem could probably be bypassed. The definition of unit of account could be industry or case specific combined with certain disclosures. If the whole value chain in the Chemical Industry is regarded as one unit of account, revenue could only be recognized if the (end-) product is finished, respectively delivered. If the unit of account is smaller and could be defined in certain

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homogenous production steps (e.g. in the service industry or for long-term construction contracts) revenue could be recognized in line with this predefined (probably industry specific) steps.

Best regards

Representatives of the Chemical Industry in the Working Group
“Externe Rechnungslegung” of GEFIU (Gesellschaft für Finanzwirtschaft in der Unternehmensführung e.V.)

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