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**Datasheet for the decision  
of 11 July 2013**

**Case Number:** T 2078/08 - 3.5.01

**Application Number:** 04009013.6

**Publication Number:** 1533732

**IPC:** G06F 17/60

**Language of the proceedings:** EN

**Title of invention:**

Construct separation for the valuation of a futures contract

**Applicant:**

DEUTSCHE BÖRSE AG

**Headword:**

Contract valuation/DEUTSCHE BÖRSE (II)

**Relevant legal provisions:**

EPC Art. 52(2)(3)

**Relevant legal provisions (EPC 1973):**

EPC Art. 56

**Keyword:**

"Technical character of method claim - no"  
"Inventive step of system claim - no"

**Decisions cited:**

T 0641/00, T 0388/04

**Catchword:**

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Case Number: T 2078/08 - 3.5.01

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.01  
of 11 July 2013

**Appellant:** DEUTSCHE BÖRSE AG  
(Applicant) Neue Börsenstraße 1  
D-60487 Frankfurt am Main (DE)

**Representative:** Grünecker, Kinkeldey,  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 30 May 2008  
refusing European patent application  
No. 04009013.6 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chairman:** S. Wibergh  
**Members:** K. Bumès  
A. Pignatelli

## Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 04009013.6 entitled "*Construct separation for the valuation of a futures contract*", published as A1: EP-A1-1 533 732.
- II. The examining division has refused the application in particular for lack of inventive step (Article 56 EPC 1973). Regarding dependent claim 12, the examining division did not identify any objective technical problem beyond the mere implementation of a method to manage credit default swaps. Hence, there was no non-obvious technical contribution by claim 12 --- and *a fortiori* by the broader (independent) claims 1 and 8 --- since the technical implementation did not exceed a programmer's skills.
- III. The appellant requests that the decision under appeal be set aside and that a patent be granted on the basis of the claim set underlying the decision under appeal, i.e. original claims 1 to 11 and amended claims 12 to 14 filed on 6 March 2007.
- (a) System claim 1 reads:
- "1. A data processing system (100) for managing bundles of constructs that may individually fail, each bundle of constructs having associated a repetitively updated resource amount usable for counterbalancing a transfer of a failure risk pertaining to the respective bundle of constructs, the system comprising:  
a data storage (110, 120, 130) for storing

construct data for each construct in a bundle of constructs for distinct individual time instances; and  
a calculation unit (140) connected to said data storage for calculating a value of said resource amount for an individual time instance based on said construct data,

wherein said calculation unit is arranged for determining whether a construct of a first bundle of constructs has failed,

wherein said calculation unit is arranged for, if no construct of said first bundle of constructs has failed, calculating a value of a resource amount usable for counterbalancing a transfer of a failure risk pertaining to said first bundle of constructs based on said construct data, and

wherein said calculation unit is arranged for, if a construct of said first bundle of constructs has failed, generating a second bundle of constructs comprising all constructs of said first bundle of constructs except for the construct having failed, and calculating a value of a resource amount usable for counterbalancing a transfer of a failure risk pertaining to said second bundle of constructs based on said construct data."

(b) Independent method claim 13 reads:

"13. A data processing method for managing bundles of constructs that may individually fail, each bundle of constructs having associated a repetitively updated resource amount usable for counterbalancing a transfer of a failure risk pertaining to the respective bundle of constructs, the method comprising:

storing construct data for each construct in a

bundle of constructs for distinct individual time instances; and

calculating a value of said resource amount for an individual time instance based on said construct data, wherein said calculation comprises:

determining whether a construct of a first bundle of constructs has failed,

if no construct of said first bundle of constructs has failed, calculating a value of a resource amount usable for counterbalancing a transfer of a failure risk pertaining to said first bundle of constructs based on said construct data, and

if a construct of said first bundle of constructs has failed, generating a second bundle of constructs comprising all constructs of said first bundle of constructs except for the construct having failed, and calculating a value of a resource amount usable for counterbalancing a transfer of a failure risk pertaining to said second bundle of constructs based on said construct data."

IV. According to the appellant, a feature can only be characterised as non-technical if it relates specifically to excluded subject-matter. In the present case, the claimed features encompass technical embodiments and, thus, have technical character. Therefore, the whole combination of claimed features needs to be examined.

The invention is said to address the technical problem of facilitating management where input parameters are complex and vary rapidly, so as to provide a less cumbersome and more reliable technique. A general purpose computer is not known to calculate a value of a

resource amount according to the algorithm specified in claim 1.

- V. The Board summoned the appellant to oral proceedings (appointed for 18 July 2013), as requested on an auxiliary basis. In an annex to the summons, the Board voiced doubts about the presence of an inventive step in the system of claim 1 and about the technical character of the method defined in independent claim 13.
- VI. In a letter received 4 June 2013, the appellant informed the Board that it did not intend to attend the oral proceedings and withdrew its corresponding request. The oral proceedings were then cancelled.

## **Reasons for the decision**

### 1. *The application*

The application relates to data processing systems and methods for managing a bundle of constructs that may individually fail, the bundle being associated with a resource amount usable for counterbalancing a transfer of a failure risk pertaining to the bundle (A1, paragraph 0001; original claims 1, 12, 14, 15).

A construct may be a hardware or software arrangement in a computer system or, on an abstract level, a conditional relationship between physical or non-physical entities (A1, paragraph 0002). In particular, a bundle of constructs may be a **futures contract** based on a basket of credit default swaps (A1, paragraph 0006).

The failure risk pertaining to a bundle of constructs may be transferred (A1, paragraph 0004). To compensate for, or counterbalance, this **transfer of a failure risk**, the risk assuming entity may receive an extra **resource amount** (A1, paragraph 0005).

For example, a hardware controller or a software program may assume the risk that one or more computer hardware or software constructs fail, by stepping into the functions of these constructs in case of a failure. In that example, compensatory resources may be processor access time, memory capacity, prioritization over other components in the handling of tasks, etc.

Where the bundle concerns credit default swaps, risk compensation is provided in the form of a **premium**.

The compensation is difficult to value, and the bundles of constructs are difficult to manage, due to the complexity and variation of input parameters. Prior art techniques are said to be cumbersome and unreliable (A1, paragraph 0007).

According to original claim 1, a data processing system for managing a bundle of constructs that may individually fail either calculates the value of a resource amount expressing a failure risk of the bundle, or calculates an amended risk value after separating a failed construct of the bundle (see title of the application).

The description relating to the drawings (Figures 1 and 2) deals exclusively with futures contracts

(i.e. bundles of financial constructs) and provides an extensive "Glossary of terms" (A1, paragraphs 0161 to 0242) to explain the financial vocabulary used.

2. *Construction of claim 1*

The claimed bundle management comprises a bifurcated algorithm for calculating the value of a resource amount (which reflects a failure risk of the bundle of constructs):

- if no construct of the bundle has failed, the calculation is performed for the full bundle;
- if a construct of the bundle has failed, the calculation is performed for the rest of the bundle; in other words, the failed construct is separated from the bundle (A1, paragraph 0011; original claim 14; title).

As pointed out by the application (A1, paragraph 0002, 0006) and the statement of grounds of appeal (page 1), the bundled constructs may be technical (e.g. hardware) or non-technical (in particular financial) items.

The embodiments described relate to futures contracts that are based on baskets of credit default swaps (A1, paragraph 0015). In that respect, the resource amount mentioned in claim 1 is a premium that protection buyers pay for transferring a financial failure risk to a protection seller (A1, e.g. paragraph 0051).

3. *Article 56 EPC 1973 - Inventive step*

- 3.1 The system according to claim 1 is defined in such general terms that the claim is not limited to a technical contribution. The Board does not see any



technical effect in knowing the failure risk of a bundle of constructs which may be a basket of credit default swaps. Moreover, even if the constructs were specified as computer components, calculating their failure risk would not provide a technical effect; the overall effect of the claimed system would be a mental or administrative result.

Therefore, calculating the failure risk of a bundle of constructs according to some mathematical, mental, commercial or administrative algorithm is a non-technical aspect that does not enter into the examination for an inventive step (T 641/00-*Two identities/COMVIK*, Headnote 1, OJ EPO 2003, 352).

The mere *possibility* of a technical embodiment is not sufficient to confer a technical character onto a general concept, cf T 388/04-*Undeliverable mail/PITNEY BOWES* (OJ EPO 2007, 016), Headnote 2:

"Subject-matter or activities that are excluded from patentability under Article 52(2) and (3) EPC remain so even where they imply the possibility of making use of unspecified technical means."

- 3.2 On the implementation level, the application does not teach any inventive technical consideration, either. It rather leaves the implementation of the desired data processing system to the skilled reader. In fact, computers constitute notorious technical means for automatic data processing, and the algorithm claimed does not require any inventive programming (spreadsheet, see A1, paragraph 0083) or non-obvious hardware (which is not disclosed anyway).

3.3 The Board concludes that claim 1 does not involve an inventive step.

4. *Construction of method claim 13*

Claim 13 relates to a data processing method without specifying any technical means for performing the steps required by the claim.

Therefore, the claim relates to a mental, mathematical or business method as such, i.e. to a non-invention according to Article 52(2)(3) EPC.

**Order**

**For these reasons, it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

T. Buschek

S. Wibergh