

CLAIMS

1. Method to process data, in particular to assess a financial risk relating to a financial transaction between an investor and one or more counterparts, said method comprising:
- 5 - preparing a database comprising characteristic data (17) relating to one or more financial entities;
- selecting, from said financial entities, said one or more counterparts of the investor associated with the financial transaction;
- supplying a plurality of operating modules (18) each associated with a
10 respective analysis function (18a-18d) selectively combinable in sequence with each other, wherein each analysis function (18a-18e) is configured at least to assign a partial risk score to a subset of said characteristic data (17), associated at least with a counterpart, and/or to one or more partial risk scores, supplied by any one of said plurality of analysis functions (18a-18e), wherein said operating
15 modules (18) constitute blocks of programs and instructions comprising at least one of either a procedure, operation or algorithm which can be implemented by means of computer programming, suitable to operate on a set of input data in order to supply a set of output data, wherein said characteristic data (17) comprise a plurality of descriptive data of said financial entities, each of which is
20 associated with a date and/or a time interval and/or geographic information and/or product information to which it refers, and wherein said characteristic data (17) further comprise a plurality of processed data, obtained by applying, to said descriptive data, models based on decision support methods and/or methods based on fuzzy technologies and/or non-linear regression algorithms;
- 25 - selecting and enabling one or more operating modules (18) to define a desired analysis procedure, selectively combining said analysis functions (18a-18e) according to a desired sequence, so that at least the last analysis function (18e) assigns an overall risk score (20) to the partial risk scores supplied by some or all of the previous analysis functions (18), wherein said analysis procedure provides
30 a plurality of analysis functions (18a-18b) performed in parallel and wherein when first analysis functions (18a) have been performed, it is possible to perform second analysis functions (18b) in parallel, which require, as input data, the outputs of the first analysis functions (18a);

- performing said desired analysis procedure, obtaining said overall risk score (20) associated with the financial risk of said financial transaction;
- displaying said operating modules (18) by means of a user interface (13) and allowing the user, by means of said user interface (13), to enable the operating
5 modules (18) of interest and connect them in sequence to each other according to a determinate order of execution in order to obtain said desired analysis procedure,
wherein said database provides to import characteristic data (17) contained in an external archive (16) accessible by means of a communication network (14) and
10 wherein performing said desired analysis procedure occurs on a cloud type infrastructure,
wherein said analysis functions (18a-18e) employ, in order to supply said partial risk score, an artificial intelligence trained on a set of financial entities of which the characteristic data (17) and the economic and financial trend are known, in
15 order to detect the most relevant characteristic data (17) for the purposes of assessing the financial risk,
wherein the execution of said desired analysis procedure occurs by means of a plurality of processing units (11), and
wherein performing said desired analysis procedure provides to perform a
20 plurality of analysis functions (18) in parallel, each on one or more processing units (11).

2. Method as in claim 1, **characterized in that** performing said desired analysis procedure also provides to select a subset of selected partial risk scores (19) supplied by some or all of the preceding analysis functions (18a-18e), **and in**
25 **that** said last analysis function (18e) assigns an overall risk score (20) to the subset of selected partial risk scores (19).

3. Method as in any claim hereinbefore, **characterized in that** it also provides to update an overall risk score (20) by adding other operating modules (18) and performing one or more additional analysis functions (18a-18e), with respect to
30 said desired analysis procedure, which supply additional partial risk scores, and by performing the last analysis function (18e) which updates the overall risk score (20) on the basis of said additional partial risk scores.

4. Apparatus (10) to process data, in particular to assess a financial risk relating

to a financial transaction between an investor and one or more counterparts, comprising:

- one or more processing units (11);

- one or more storage units (12),

5 - at least one control and user interface unit (13);

- a communication network (14), configured to put said units (11, 12, 13) in communication;

in at least one of said storage units (12) there being stored a database comprising characteristic data (17) relating to one or more financial entities;

10 said control and user interface unit (13) being configured at least to allow a user to select, from said financial entities, said one or more counterparts of the investor associated with the financial transaction;

in at least one of said storage units (12) there being stored a plurality of operating modules (18), each associated with a determinate analysis function (18a-18b)

15 selectively combinable in sequence with each other, wherein each analysis function (18a-18e) is configured at least to assign a partial risk score to a subset of characteristic data (17), associated at least with a counterpart, and/or to one or more partial risk scores, supplied by any one of said plurality of analysis functions (18a-18e); wherein said operating modules (18) constitute blocks of

20 programs and instructions comprising at least one of either a procedure, operation or algorithm which can be implemented by means of computer programming, suitable to operate on a set of input data in order to supply a set of output data, wherein said characteristic data (17) comprise a plurality of descriptive data of said financial entities, each of which is associated with a date and/or a time
25 interval and/or geographic information and/or product information to which it refers, and wherein said characteristic data (17) further comprise a plurality of processed data, obtained by applying, to said descriptive data, models based on decision support methods and/or methods based on fuzzy technologies and/or non-linear regression algorithms;

30 said control and user interface unit (13) being configured at least to allow a user to select on each occasion one or more from the plurality of operating modules (18) available and define a desired analysis procedure, selectively combining said analysis functions (18a-18e) according to a desired sequence, so that at least the

last analysis function (18e) assigns an overall risk score (20) to the partial risk scores supplied by some or all of previous analysis functions (18), wherein said analysis procedure provides a plurality of analysis functions (18a-18b) performed in parallel and wherein when first analysis functions (18a) have been performed,
5 it is possible to perform second analysis functions (18b) in parallel, which require, as input data, the outputs of the first analysis functions (18a);
said one or more processing units (11) being configured at least to perform said desired analysis procedure, obtaining said overall risk score (20) associated with the financial risk of said financial transaction,
10 wherein said user interface (13) displays said operating modules (18) and allows the user to enable the operating modules (18) of interest and connect them in sequence to each other according to a determinate order of execution in order to obtain said desired analysis procedure,
wherein said storage unit (12) is connected, by means of said communication
15 network (14), to an external archive (16) which contains characteristic data (17) which can be imported into said database and the apparatus comprises a cloud type infrastructure in which the performing of said desired analysis procedure occurs on,
wherein said analysis functions (18a-18e) employ, in order to supply said partial
20 risk score, an artificial intelligence trained on a set of financial entities of which the characteristic data (17) and the economic and financial trend are known, in order to detect the most relevant characteristic data (17) for the purposes of assessing the financial risk,
wherein the execution of said desired analysis procedure occurs by means of a
25 plurality of processing units (11), and
wherein performing said desired analysis procedure provides to perform a plurality of analysis functions (18) in parallel, each on one or more processing units (11).
5. Computer program storable in a medium readable by a computer that contains
30 the instructions which, once performed by an apparatus (10) as in claim 4, determine the execution of the method as in any claim from 1 to 3.