LOSS RISK MANAGEMENT ACROSS MULTIPLE VENUES

Cross Reference to Related Applications

This application claims priority to US provisional application 61/680,163 filed August 6, 2012, which is hereby incorporated herein by reference.

Field

Some embodiments may relate to managing risk related to losses.

Background

An entity may risk money (e.g., through a stock exchange by buying a financial instrument such as a security). Such risks may result in losses to the entity over time (e.g., by selling a security at a lower price than it was purchased).

Brief Description of the Figures

Figure 1 shows an example system that may be used in some embodiments.

Figure 2 shows an example method that may be performed in some embodiments.

Summary

According to a first aspect, there is provided an apparatus comprising: a risk manager configured to: receive reports of trading activity of a plurality of trading entities from a plurality of trading venues, calculate losses of the trading entities over time based on the reports of trading activity, and report the losses to the plurality of trading venues in substantially real time; and a trading venue of the plurality of trading venues, in which the trading venue is configured to: compare an amount of reported losses of ~~the~~ a trading entity of the plurality of trading entities to a threshold amount of losses allowed for the trading entity, in which the threshold amount of losses allowed is based on an amount of collateral from the trading entity held by one or more collateral holding entities, and halt trading by the trading entity if the amount of reported losses exceeds the threshold amount of losses.

In an embodiment, the trading entity includes a high frequency algorithmic trader. In an embodiment, the threshold includes a plurality of thresholds that cover different amounts of time such that larger losses are allowed over larger time amounts.

In an embodiment, the trading entity includes a market maker and the one or more collateral holding entities includes clearing houses. In an embodiment, the trading venue is configured to receive an indication that a collateral holding entity of the ~~plurality of~~ one or more collateral holding entities has increase collateral held on behalf of the trading entity, and in response, allowing trading by the entity again.

According to a second aspect, there is provided an apparatus comprising: a trading venue configured to: determine matches between orders for financial instruments and facilitate trading based on said matches; report trading activity of a plurality of trading entities through the trading venue to a risk manager; receive a report of losses of each of the plurality of trading entities that occur through trades at the trading venue and a plurality of other trading venues; compare an amount of reported losses of a trading entity of the plurality of trading entities to a threshold amount of losses allowed for the trading entity, in which the threshold amount of losses allowed is based on an amount of collateral from the trading entity held by one or more collateral holding entities, and halt trading by the trading entity if the amount of reported losses exceeds the threshold amount of losses.

In an embodiment, the trading venue is further configured to receive a report of collateral held on behalf of the trading venue for the one or more collateral holding entities, and calculate the threshold based on the amount.

According to a third aspect, there is provided a computing device comprising: a processor; and a machine readable medium having stored thereon a plurality of instructions that when executed by the processor cause the apparatus to: receive reports of trading activity of a plurality of trading entities from a plurality of trading venues; calculate losses of the trading entities over time based on the reports of trading activity; and report the losses to the plurality of trading venues in substantially real time, in which a trading venue of the plurality of trading venues is configured to: compare an amount of reported losses of a trading entity to a threshold amount of losses allowed for the trading entity, in which the threshold amount of losses allowed is based on an amount of collateral from the trading entity held by one or more collateral holding entities; and halt trading by the trading entity if the amount of reported losses exceeds the threshold amount of losses.

XI. Prosecution History

In interpreting the present application (which includes the claims), one of ordinary skill in the art shall refer to the prosecution history of the present application, but not to the prosecution history of any other patent or patent application, regardless of whether there are other patent applications that are considered related to the present application, and regardless of whether there are other patent applications that share a claim of priority with the present application.

XII. Alternative Technologies

It will be understood that the technologies described herein for making, using, or practicing various embodiments are but a subset of the possible technologies that may be used for the same or similar purposes. The particular technologies described herein are not to be construed as limiting. Rather, various embodiments contemplate alternate technologies for making, using, or practicing various embodiments.

~~What is claimed is:~~

Claims

1. An apparatus comprising:

a risk manager configured to:

receive reports of trading activity of a plurality of trading entities from a plurality of trading venues,

calculate losses of the trading entities over time based on the reports of trading activity, and

report the losses to the plurality of trading venues in substantially real time; and

a trading venue of the plurality of trading venues, in which the trading venue is configured to:

compare an amount of reported losses of ~~the~~ a trading entity of the plurality of trading entities to a threshold amount of losses allowed for the trading entity, in which the threshold amount of losses allowed is based on an amount of collateral from the trading entity held by one or more collateral holding entities, and

halt trading by the trading entity if the amount of reported losses exceeds the threshold amount of losses.

2. The apparatus of claim 1, in which the trading entity includes a high frequency algorithmic trader.

3. The apparatus of claim 1, in which the threshold includes a plurality of thresholds that cover different amounts of time such that larger losses are allowed over larger time amounts.

4. The apparatus of claim 1, in which the trading entity includes a market maker and the one or more collateral holding entities includes clearing houses.

5. The apparatus of claim 1, in which the trading venue is configured to receive an indication that a collateral holding entity of the ~~plurality of~~ one or more collateral holding entities has increase collateral held on behalf of the trading entity, and in response, allowing trading by the entity again.

6. An apparatus comprising:

a trading venue configured to:

determine matches between orders for financial instruments and facilitate trading based on said matches;

report trading activity of a plurality of trading entities through the trading venue to a risk manager;

receive a report of losses of each of the plurality of trading entities that occur through trades at the trading venue and a plurality of other trading venues;

compare an amount of reported losses of a trading entity of the plurality of trading entities to a threshold amount of losses allowed for the trading entity, in which the threshold amount of losses allowed is based on an amount of collateral from the trading entity held by one or more collateral holding entities, and

halt trading by the trading entity if the amount of reported losses exceeds the threshold amount of losses.

7. The apparatus of claim 6, in which the trading venue is further configured to receive a report of collateral held on behalf of the trading venue for the one or more collateral holding entities, and calculate the threshold based on the amount.

8. A computing device comprising:

a processor; and

a machine readable medium having stored thereon a plurality of instructions that when executed by the processor cause the apparatus to:

receive reports of trading activity of a plurality of trading entities from a plurality of trading venues;

calculate losses of the trading entities over time based on the reports of trading activity; and

report the losses to the plurality of trading venues in substantially real time, in which a trading venue of the plurality of trading venues is configured to: compare an amount of reported losses of a trading entity to a threshold amount of losses allowed for the trading entity, in which the threshold amount of losses allowed is based on an amount of collateral from the trading entity held by one or more collateral holding entities; and halt trading by the trading entity if the amount of reported losses exceeds the threshold amount of losses.

9. The ~~apparatus~~ computing device of claim 8, in which the trading entity includes a high frequency algorithmic trader.

10. The ~~apparatus~~ computing device of claim 8, in which the threshold includes a plurality of thresholds that cover different amounts of time such that larger losses are allowed over larger time amounts.

11. The ~~apparatus~~ computing device of claim 8, in which the trading entity includes a market maker and the one or more collateral holding entities includes clearing houses.

12. The apparatus of claim 1, in which the threshold amount is further based on a credit worthiness of the trading entity so that more creditworthy entities have a higher threshold than less creditworthy entities.

13. The apparatus of claim 12, in which the trading venue is configured to receive an indication of the creditworthiness of the trading entity and determine the threshold based on the creditworthiness and the amount of collateral.

14. The apparatus of claim 1, in which the one or more collateral holding entities include a plurality of collateral holding entities, in which the trading venue is configured to receive respective indications of collateral held at each of the plurality of collateral holding entities on behalf of the trading entity, and in which the trading venue is configured to determine the amount of collateral based on the respective received indications.

15. The apparatus of claim 14, in which one collateral holding entity of the plurality of collateral holding entities holds collateral exclusively for the trading venue and another collateral holding entity of the plurality of collateral holding entities holds collateral for the plurality of trading venues.

16. The apparatus of claim 6, in which the threshold amount is further based on a credit worthiness of the trading entity so that more creditworthy entities have a higher threshold than less creditworthy entities.

17. The apparatus of claim 16, in which the trading venue is configured to receive an indication of the creditworthiness of the trading entity and determine the threshold based on the creditworthiness and the amount of collateral.

18. The apparatus of claim 6, in which the one or more collateral holding entities include a plurality of collateral holding entities, in which the trading venue is configured to receive respective indications of collateral held at each of the plurality of collateral holding entities on behalf of the trading entity, and in which the trading venue is configured to determine the amount of collateral based on the respective received indications.