

## PATENT ASSIGNMENT COVER SHEET

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<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
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<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>PCT Number:</b>	JP2002049753
<b>Patent Number:</b>	8015089
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<b>DATE SIGNED:</b>	09/10/2015
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 18</b>	
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# Patent Assignment

This **Patent Assignment** (hereinafter referred to as the "Assignment") is made and entered into on September 9, 2015 (the "Effective Date") by and between the following parties:

**Ziad Baya'a 260 Aldrich Hall Irvine, CA**  
**Ahmad Baya'a 260 Aldrich Hall Irvine, CA**

(the "Assignor")

AND

**LUIS ALBERTO HECHT ROJAS**  
8200 STOCKDALE HWY #10  
BAKERSFIELD, CA 93311

(the "Assignee")

WHEREAS, the Assignor is the sole and rightful owner of certain ideas, inventions, patent applications therefor and patents thereon (collectively referred to as the "Patents") set forth in **Exhibit A** attached hereto; and

WHEREAS, the Assignee desires to purchase or acquire the Assignor's right, title, and interest in and to the Patents; and

WHEREAS, the Assignor and Assignee are both duly authorized and capable of entering into this Assignment.

NOW, THEREFORE, for valuable consideration, the receipt of which is acknowledged, the parties hereto agree as follows:

## 1. ASSIGNMENT.

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application(s)) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

fore

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

**PATENT**

**REEL: 036526 FRAME: 0053**

The Assignor does hereby sell, assign, transfer and set over to Assignee 100% of its right, title, and interest in the Patents to Assignee for the entire term of the Patents and any reissues or extensions and for the entire terms of any patents, reissues or extensions that may issue from foreign applications, divisions, continuations in whole or part or substitute applications filed claiming the benefit of the Patents. The right, title, and interest conveyed in this Assignment is to be held and enjoyed by Assignee and Assignee's successors as fully and exclusively as it would have been held and enjoyed by Assignor had this assignment not been made. applications set forth in Exhibit A to Assignee as recipient of Assignor's right, title and interest therein.

The Assignor authorizes United States Patent and Trademark Office and any other applicable jurisdictions outside the United States to record the transfer of the patent and/or patent

Assignor further agrees to: (a) cooperate with Assignee in the protection of the patent rights and prosecution and protection of foreign counterparts; (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer; and (c) perform such other acts as Assignee lawfully may request to obtain or maintain the Patents and any and all applications and registrations for the invention in any and all countries.

## **2. WARRANTY.**

Assignor warrants that Assignor is the legal owner of all right, title and interest in the Patents, that the Patents have not been previously pledged, assigned, or encumbered and that this Assignment does not infringe on the rights of any person.

## **3. GOVERNING LAW.**

This Assignment is governed by, and is to be construed in accordance with the laws of the State of California.

## **4. ENTIRE AGREEMENT.**

This Assignment constitutes the sole agreement of the parties and supersedes all oral negotiations and prior writings with respect to the subject matter hereof.

## **5. SEVERABILITY.**

If one or more provisions of this Assignment are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. If the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision will be excluded from this Assignment, (ii) the balance of the Assignment will be interpreted as if such provision were so excluded and (iii) the balance of the Assignment will be enforceable in accordance with its terms.

## **6. ADVICE OF COUNSEL.**

EACH PARTY ACKNOWLEDGES THAT, IN EXECUTING THIS ASSIGNMENT, EACH PARTY HAS HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT COUNSEL.  
**PATENT**  
**REEL: 036528 FRAME: 0054**

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By:

ZIAD BAYA'A

AHMAD BAYA'A

Date: 9/9/15

Assignee:

By:

LUIS ALBERTO HECHT ROJAS

9/9/15

## Exhibit A

### List of Patents



US008015089B1

(10) **Patent No.:** US 8,015,089 B1

(43) **Date of Patent:** Sep. 6, 2011

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#### FOREIGN PATENT DOCUMENTS

JP 2002049753 A 2/2002









US008015089B1

(12) **United States Patent**  
**Hecht et al.**

(10) **Patent No.:** **US 8,015,089 B1**  
(45) **Date of Patent:** **Sep. 9, 2015**

(54) **SYSTEM AND METHOD FOR PROVIDING A  
PRE-PAID COMMODITY-BASED CREDIT  
ACCOUNT**

(76) Inventors: **Luis Hecht**, Bakersfield, CA (US);

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/848,682**

(22) Filed: **Aug. 2, 2010**

(51) **Int. Cl.**  
**G06Q 40/00** (2006.01)

(52) **U.S. Cl.** ..... **705/35; 705/39**

(58) **Field of Classification Search** ..... **705/35, 705/39**

See application file for complete search history.

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\* cited by examiner

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(74) *Attorney, Agent, or Firm* — Maulin V. Shah

(57) **ABSTRACT**

This invention relates to a system and method that provides a pre-paid credit account, where the value of the account is based on the market price of an underlying commodity instrument. More specifically, this invention relates to a system and method for managing cash assets in the form of gold bullion that is maintained by a financial institution on behalf of an account holder, thereby allowing the account holder to utilize the purchasing power of the gold bullion assets in a convenient fashion.

**20 Claims, 5 Drawing Sheets**

400
408

**NuCash™ ATM**

DEPOSIT

WITHDRAW

TRANSFER

BALANCE INQUIRY

Account #: XXXXX1234
Market Time: 23:20

Available Credit Balance: \$3,900.00 USD
402

Deposit Amount: \$4,250.00 USD
406

COMMODITY	UNITS	MARKET PRICE	PURCHASE PRICE	PURCHASE AMOUNT	CURRENT VALUE	CHANGE	% CHANGE
Gold Bullion	2	\$1,000.00	\$950.00	\$1,900.00	\$2,000.00	\$100.00	5.26%
Sugar	100	\$15.00	\$30.00	\$2,000.00	\$1,500.00	-\$500.00	-25.00%
Natural Gas	10	\$40.00	\$35.00	\$350.00	\$400.00	\$50.00	14.29%
<b>TOTALS</b>				<b>\$4,250.00</b>	<b>\$3,900.00</b>	<b>-\$350.00</b>	<b>-8.24%</b>

404

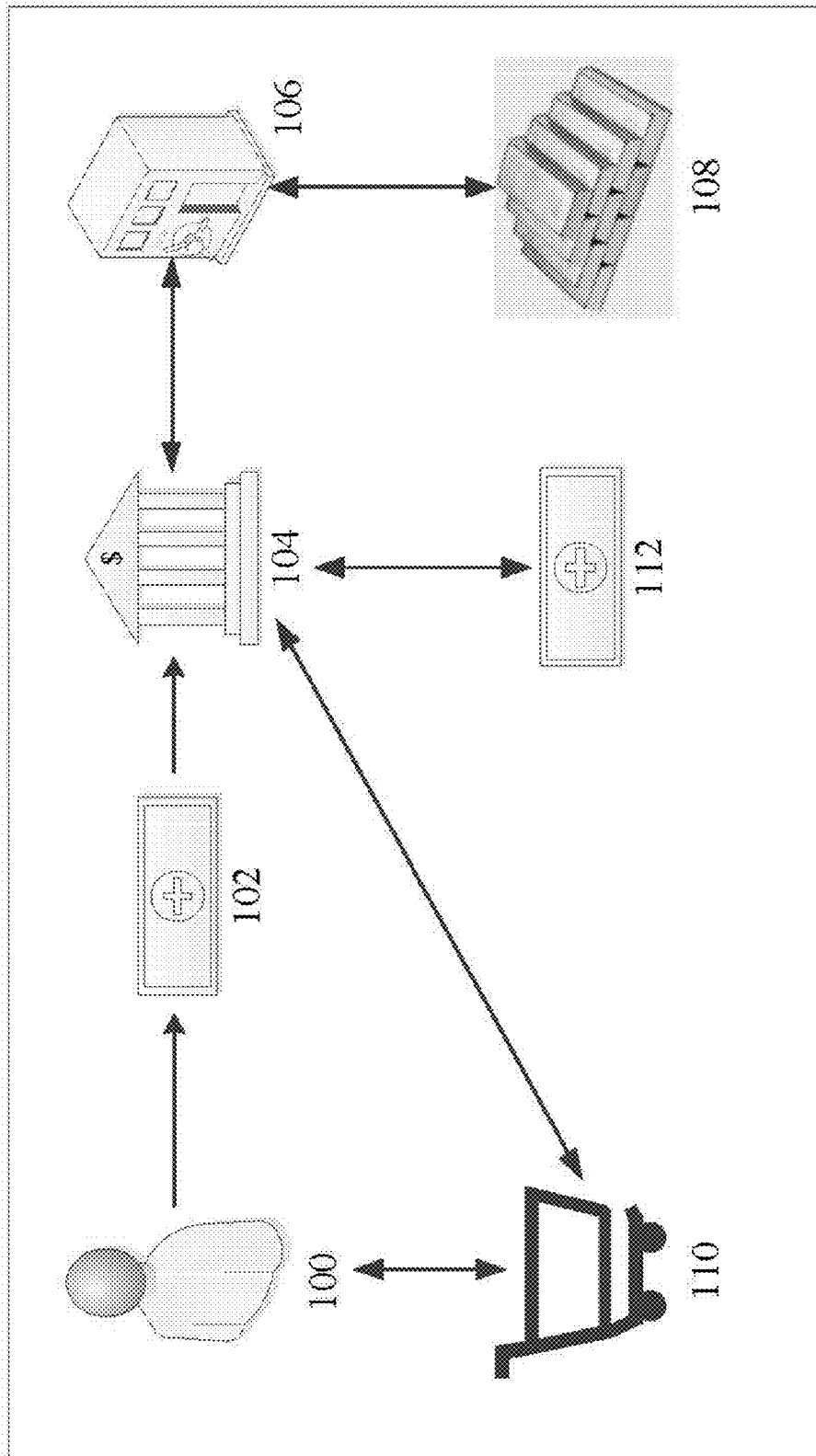
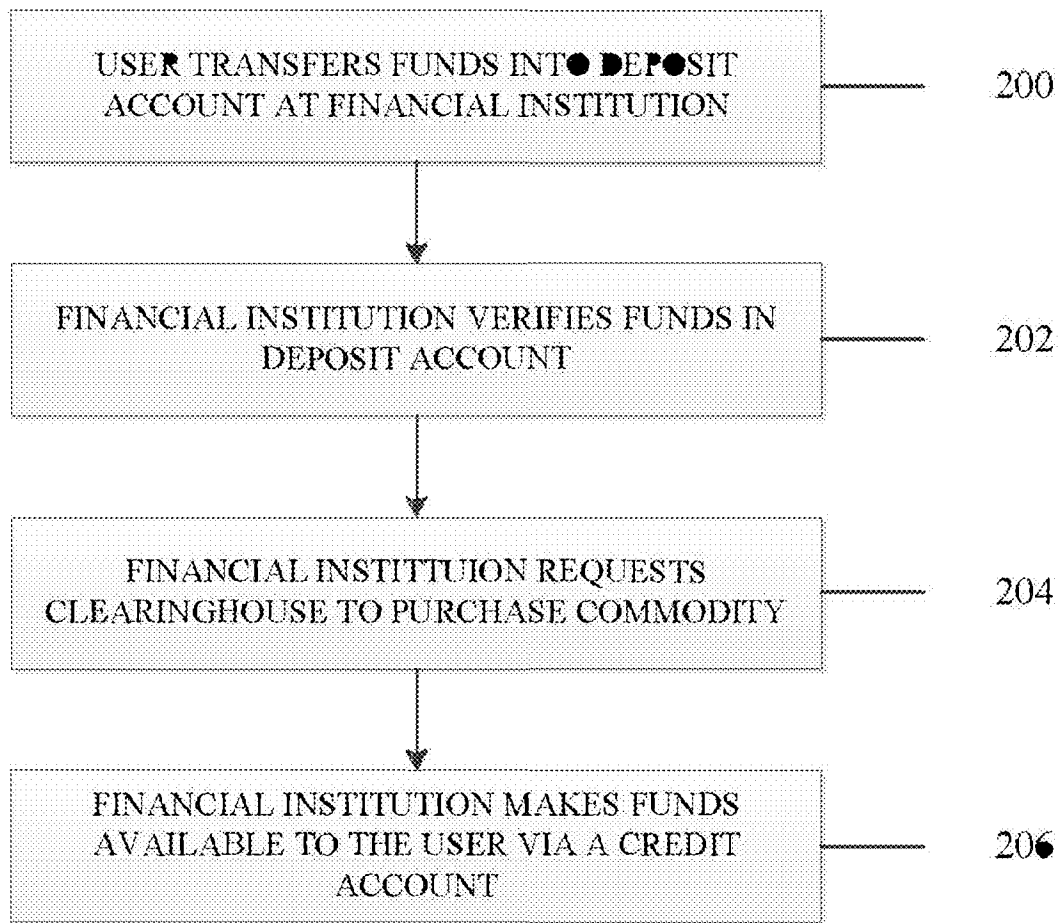
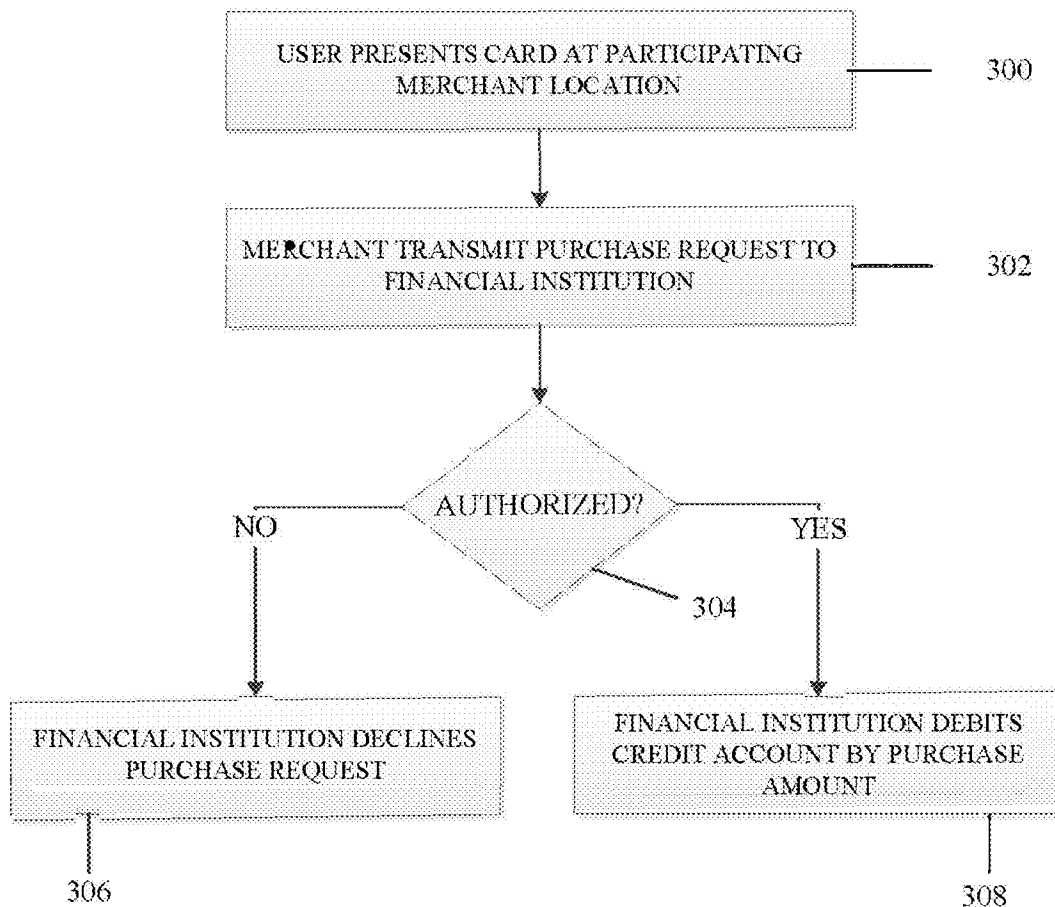


FIG. 1

**FIG. 2**

**FIG. 3**

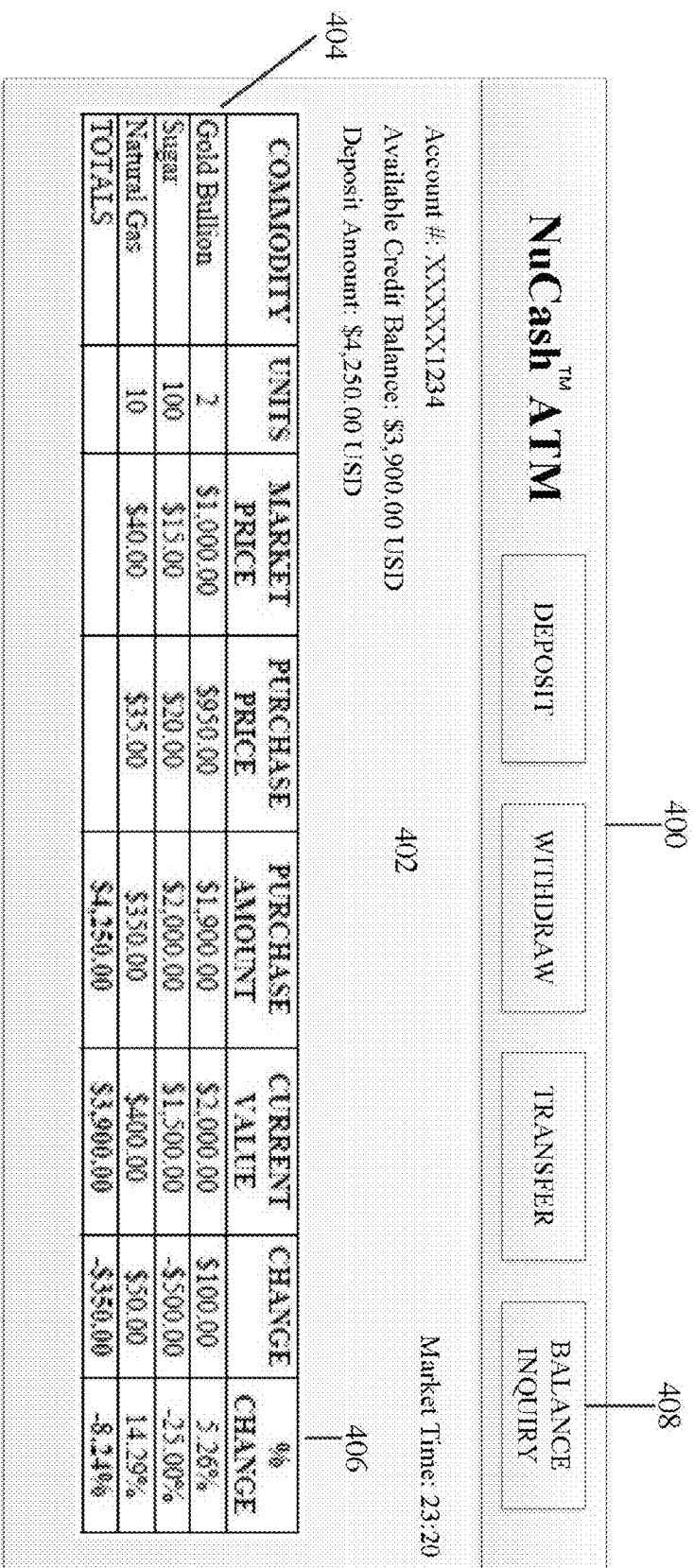


FIG. 4

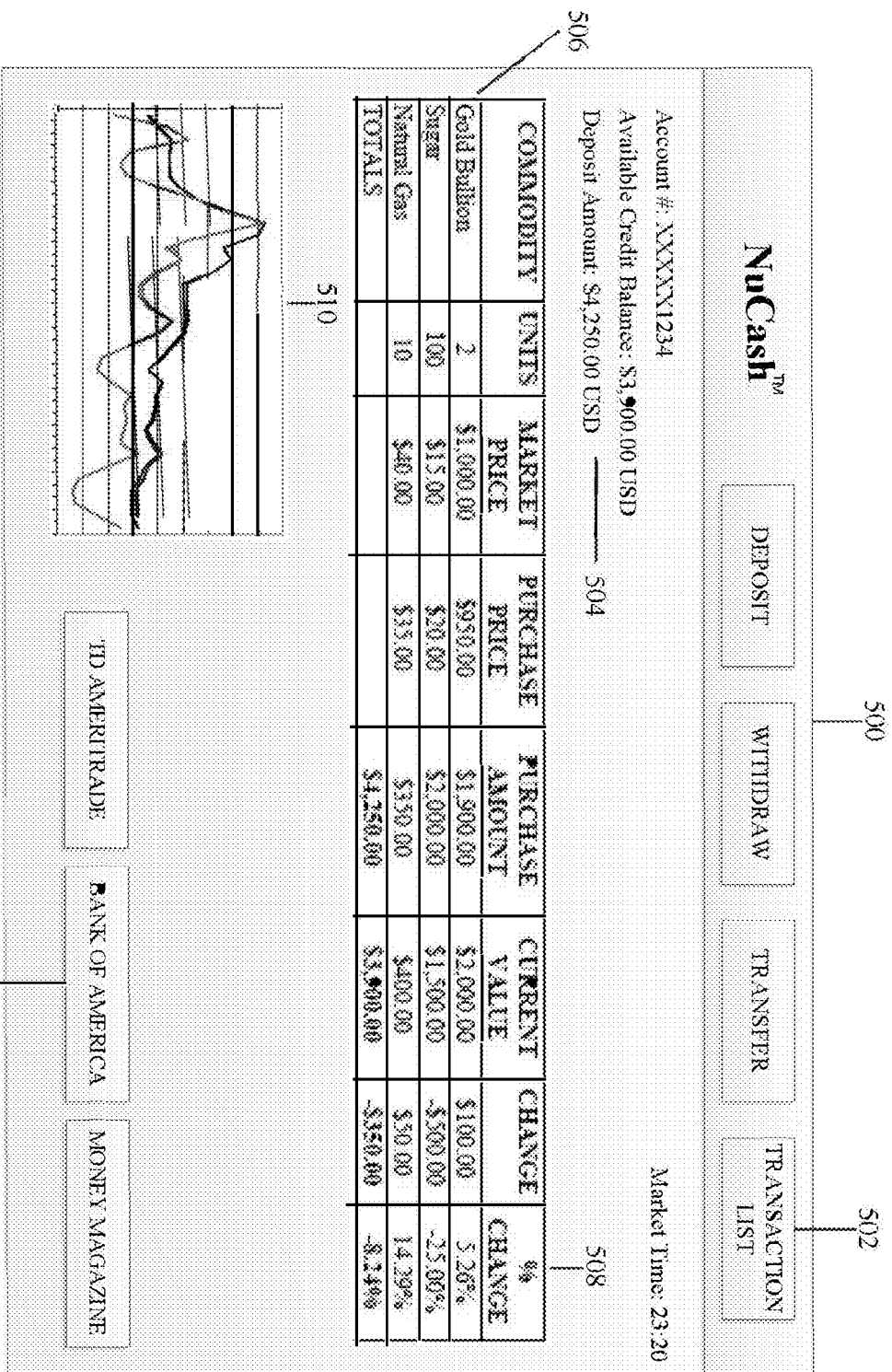


FIG. 5

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# SYSTEM AND METHOD FOR PROVIDING A PRE-PAID COMMODITY-BASED CREDIT ACCOUNT

## BACKGROUND

### 1. Field of Invention

This invention generally relates to a system and method that provides a pre-paid credit account, where the value of the account is based on the market price of an underlying commodity instrument. More specifically, this invention relates to a system and method for using a purchase card to make purchases against a credit account secured by an underlying investment in gold bullion.

### 2. Description of Related Art

Gold is a highly precious and coveted metal, and it is a popular investment vehicle for individual and institutional investors alike. Gold is tradable in troy ounces and, in recent years, it has provided higher returns compared to other investment vehicles, such as equities and real estate. Furthermore, gold has traditionally been considered a safe and conservative means of investing, and it can be easily liquidated into cash and acceptable in various types of transactions throughout the world.

There is a strong demand for gold all over the world, as its value tends to be more stable than currencies and other forms of investment. Specifically in today's market conditions, fluctuating interest rates to fight inflation continues to create a negative climate for investors seeking to invest in traditional equities and bonds. Investors hoping for safer asset types have therefore shifted to investments in commodities such as gold bullion, natural gas, sugar, etc.

As such, gold is an important asset and is safe even in times of economic instability. However, individuals wishing to physically possess gold encounter various hurdles, such as fabrication costs to convert raw gold into market-approved gold bullion bars of standardized shapes and weight, transportation costs, tariffs and taxes to move gold bullion across jurisdictions, and risks associated with safekeeping. Furthermore, the weight and size of gold coins and bars makes it impractical as an everyday trading currency.

Therefore, there exists a need for a system and method for a commodity-based purchasing and investment vehicle that is practical and easy to use.

## SUMMARY

In an embodiment, this invention relates to a convenient and practical method of maintaining a credit account where the available credit amount is based on the market value of a commodity, such as gold bullion. The invention provides a system and method wherein a user can deposit cash or other valuables into a banking account, and subsequently, a financial institution purchases commodities using these funds on behalf of the user. The financial institution provides the user with a credit account balance based solely on the value of the underlying commodity, wherein the credit account balance can fluctuate as the market price of the commodity changes.

In an embodiment, the user is issued a purchase card that can be used to make purchases against the credit account balance. The purchase card is linked to the credit account. When a purchase is made, the underlying commodity is sold in an increment equal to the purchase amount, and the credit account balance is debited accordingly. Thus, the purchase card is utilized in a fashion similar to a traditional debit or credit card.

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In an embodiment, this invention relates to a method and system for a financial institution to facilitate the servicing and management of a pre-paid commodity-based credit account. The financial institution may collect transaction fees, as well as asset management fees for the service described herein.

## BRIEF DESCRIPTION OF THE DRAWINGS

These and other embodiments of this invention will be discussed with reference to the following exemplary and non-limiting illustrations, in which like elements are numbered similarly, and wherein:

FIG. 1 illustrates the process of utilizing a pre-paid commodity-based credit account according to an embodiment of the invention.

FIG. 2 is a flowchart illustrating the steps of funding a pre-paid commodity-based credit account according to an embodiment of the invention.

FIG. 3 is a flowchart illustrating the steps of making purchases from a pre-paid commodity-based credit account according to an embodiment of the invention.

FIG. 4 is an illustration of an automated teller machine display according to an embodiment of the invention.

FIG. 5 is an illustration of an Internet portal according to an embodiment of the invention.

## DETAILED DESCRIPTION OF EMBODIMENTS

Before the present method and hardware enablement are described, it is to be understood that this invention is not limited to the particular methodologies, and hardware described, as these may vary. It is also to be understood that the terminology used in the description is for the purpose of describing the particular versions or embodiments only, and is not intended to limit the scope of the present invention which will be limited only by the appended claims. The words "comprising," "having," "containing," and "including," and other forms thereof, are intended to be equivalent in meaning and be open ended in that an item or items following any one of these words is not meant to be an exhaustive listing of such item or items, or meant to be limited to only the listed item or items. The disclosed embodiments are merely exemplary of the invention, which may be embodied in various forms.

It is to be understood that the invention described herein is meant to strictly follow the recommendations set forth by the Financial Action Task Force (FATF), which provide a complete set of counter-measures to combat money laundering, terrorist financing and financial crimes. Furthermore, the invention is meant to comply with stringent national legislations and policies in force, such as the United States Patriot Act and the Third European Union Money Laundering Directive.

FIG. 1 illustrates the process of utilizing a pre-paid commodity based credit account according to an embodiment of the invention. The user **100** is the account holder, and can be an individual, corporate entity, non-profit organization, or other entity that is legally authorized to hold a banking account. The users of the present invention may be, for example, gold enthusiasts, technologically advanced consumers, those who do not desire to constantly carry large amounts of cash on their person, those who do not trust the value of cash, those who do not qualify for traditional credit cards, and those hoping to appreciate their cash assets in correlation with the increase in gold prices.

In an embodiment, the user **100** is associated with a deposit account **110** at a financial institution **104**, such as a bank, credit union, or a third-party pre-paid commodity-based

credit account service provider. For the purposes of this invention, the terms “financial institution” and “service provider” can be interchangeable. The service provider can be responsible for many administrative and servicing tasks, such as accepting deposits, providing customer service representatives, facilitating purchases/transactions from merchants, issuing account statements and alerts to users, etc. The service provider can generate revenue by charging the financial institution **104** a fee per user or transaction, or an up-front fixed fee per a set number of users or transactions. This invention makes note of the fact that many businesses, including financial institutions, are outsourcing many ancillary functions such as servicing and fulfillment in order to reduce overhead costs.

In an embodiment, the user **100** may have multiple deposit accounts at the financial institution **104** that are linked, and multiple users may be affiliated with a particular deposit account.

In order to utilize a pre-paid commodity-based credit account, the user **100** must transfer funds into the deposit account **110**. Funds can be transferred in a variety of ways, namely physical means such as cash, check, or money order deposited at the financial institution **104**, which can include a branch, service center, or automated teller machine (ATM). The user **100** may also transfer funds electronically from another account into their deposit account **110**. The other account may be a savings, checking, or brokerage account at the same or another financial institution. In another embodiment, funds may be deposited into the deposit account **110** from another commodity-based credit account owned by the user **100** or another party.

Furthermore, the deposit account **110** can be linked to various online e-commerce financial transaction accounts, such as PayPal and Google Checkout, which allow users to conduct online transactions that are linked to the user's banking account or credit card.

After the deposit account **110** is funded, the financial institution **104** transmits a purchase request to a commodity clearinghouse **106**, such as the International Commodities Clearing House (ICCH) or the European Commodity Clearing AG (ECC). The clearinghouse **106** is responsible for clearing and settling commodity purchase and sale transactions. The purchase request includes any account information related to the user **100**, the dollar amount of commodity to purchase on behalf of the user **100**, and specification of a particular commodity to purchase (if the user **100** wishes to purchase multiple commodities).

The financial institution **104** may request an immediate, real-time purchase from the clearinghouse **106**. In another embodiment, there may be a delay in the purchase request as the financial institution **104** may need to verify settlement of the funds placed into the deposit account **102**. In a preferred embodiment, the clearinghouse **106** settles the purchase within one-business day or earlier so that the user **100** can take advantage of the spot market price of the commodity on the day they transfer funds into their deposit account **102**.

In a preferred embodiment, the commodity is purchased in real-time using an automated clearinghouse, so that the account holder has immediate realization and true market-based value of their account following a transfer of funds into their deposit account **102**.

The clearinghouse **106** can purchase commodities directly from commodity suppliers and markets, such as the professional bullion markets. In a preferred embodiment, only gold bullion from the professional bullion market is purchased and sold, thereby permanently guaranteeing quality as this form of gold bullion has always, and will always, remain within

accredited depositories or storage facilities. Furthermore, the professional bullion market only trades in fine gold, such as 99.5% purity, thereby ensuring that the gold bullion used within the scope of this invention will retain its full market value.

For example, if the user deposits \$1,000.00 USD into the deposit account **102**, the financial institution **104** will instruct the clearinghouse **106** to purchase \$1,000.00 USD worth of gold bullion at the current spot market price. If the price of gold bullion at the time of the purchase request is \$1,000.00 USD per troy ounce, the clearinghouse **106** will purchase one troy ounce of gold bullion on behalf of the financial institution **104** for the user **100**.

In an embodiment, the financial institution **104** and/or the clearinghouse **106** may take a service fee for each transaction. For example, if the user **100** deposits \$1,000.00 USD into their deposit account **102**, the clearinghouse **106** may deduct a 2% service fee from the transaction amount. Thus, the clearinghouse **106** retains \$2.00 USD, and purchases a commodity with the remaining balance of \$998.00 USD. This service fee can also take the form of a spread, where the difference in the bid price and the ask price is used as a commission for any of the involved transacting parties.

In another embodiment, the financial institution **104** may charge an asset management fee on a monthly or yearly basis; the charge based on the value of the commodity assets being held and managed by the financial institution **104** on behalf of the user **100**.

After the clearinghouse **106** purchases the commodity, such as gold bullion, the physical gold bullion bars are stored at an accredited depository or storage facility, such as at Via Mat International or Safes Fidelity. In an embodiment, the user **100** may request gold certificates showing proof of purchase and authenticity. However, the physical gold bullion remains in storage. The user **100** does not receive physical possession of the gold bullion due to the costs and risks associated with logistics, transportation, and handling the gold bullion outside of a secured vault.

In an alternative embodiment, the user **100** may request physical possession of the commodity, such as gold bullion bars. Such a request will cost extra fees, such as transportation and tariff fees.

After the commodity is purchased, the clearinghouse **106** provides a confirmation of the purchase to the financial institution **104**. The confirmation includes information such as the purchase price of the commodity, the purchase amount, and any service fees or commissions deducted by the clearinghouse **106**. Upon receiving confirmation of the purchase, the financial institution funds a credit account **112** for the user **100**.

The credit account **112** allows the user **100** access to funds equal to the underlying commodity's market value. The value of the credit account **112** fluctuates based on the value of the underlying commodity. Going back to the above example, if the value of gold bullion on the day of funding the credit account **112** is \$1,000.00 USD, the user will have access to \$1,000 USD in the credit account.

If the value of gold bullion increases to \$1,100.00 per troy ounce, the value of the credit account will increase to \$1,100.00 USD. Conversely, if the value of gold bullion decreases to \$900.00 USD per troy ounce, the available credit in the credit account **112** will decrease to \$900.00 USD. Thus, the user **100** can take advantage of, and be exposed to, the fluctuations in the spot market for commodities.

In another embodiment, the user **100** can purchase multiple commodities, such as, but not limited to, traditional energy (light crude oil, natural gas, unleaded gasoline, heating oil,



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ethanol, electricity, alternative energy (solar power, wind power, hydro-electric power), precious metals (silver, platinum, copper, tungsten, steel), agricultural products (corn, soybeans, wheat), livestock (lean hogs, pork bellies, live cattle, feeder cattle), and consumer staples (cocoa, coffee, cotton, sugar). These commodities can be used in conjunction with or in lieu of gold bullion as described herein.

For example, the user **100** can specify that a portion of the funds be used to purchase gold bullion, and another portion of the funds be used to purchase cocoa. After the specified commodities have been purchased through the clearinghouse **106**, the value of the user's credit account **112** will fluctuate based on the market prices of each underlying security. This provides the user **100** with a means to diversify their account, and spread risk, hedging, and growth opportunities among various commodities.

Once the credit account **112** is funded, the user **100** can make purchases from merchants **110** against the credit account **112** using a purchase card. The purchase card can be similar to a credit or debit card. When the user **100** initiates a purchase, the merchant **110** contacts the financial institution **104** for authorization. The financial institution **104** verifies that the credit account **112** has the necessary funds to cover the purchase. Upon verification, the financial institution **104** transmits an approval to the merchant **110**, who then completes the purchase transaction for the user **100**.

The merchant **110** and the financial institution **104** may communicate via an electronic merchant payment gateway, similar to how traditional merchant credit card processing is currently conducted. The merchant **110** can be issued a card processing terminal that includes a card reader specifically configured to handle the purchase card and pre-paid commodity-based credit account system. In another embodiment, commercially available credit card readers can be utilized, and updated with any required firmware or software required by the financial institution **104** to process the transactions described herein.

In an embodiment, the user **100** may be issued a personal identification number (PIN). This PIN is used to verify the identity of the user **100** when they telephone the financial institution **104** for account service issues. Furthermore, the PIN may be required to complete a transaction at a merchant **110**, or at an ATM. The user **100** can enter the PIN on a PIN reader, similar to debit card PIN readers currently installed at many merchant locations and businesses. Alternatively, the user **100** may be required to sign a receipt or electronic screen pad, and show identification, such as a driver's license, to complete a transaction at a merchant **110**. This embodiment is similar to traditional credit card verification currently utilized by merchants.

Further, upon verification that the necessary funds are available in the credit account **112**, the financial institution **104** instantly debits the purchase amount from the credit account **112**. The financial institution **104** then transmits a sell request to the clearinghouse **106**. The sell request includes any account information related to the user **100**, the dollar amount of commodity to sell on behalf of the user **100** so that the bank can receive credit for the purchase amount, and a specification of a particular commodity to sell (if the credit account **112** has multiple underlying commodities).

After receiving the sell request from the financial institution **104**, the clearinghouse **106** sells the requested amount of the commodity or commodities to buyers in the appropriate commodity markets. After the sale is completed, the clearinghouse **106** transmits the proceeds of the sale to the financial institution **106**, minus any transaction or service fees, or commissions. Thus, upon making a purchase, the user's

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credit account **112** is debited by the purchase value, and the underlying commodity is sold in the amount of the purchase price so that the financial institution **104** can be credited appropriately for the user's purchase.

In another embodiment, the financial institution **104** may choose to hold all debits to a credit account **112** until a specified time, i.e., end of business day, end of week, etc., and then have the clearinghouse **106** process a batch of sell orders at once. This allows the financial institution **104** to speculate on the price of the underlying commodity. By waiting until the price of the underlying commodity increases, the financial institution **104** may achieve higher returns from the transaction to settle the user's credit account **112**. Conversely, this strategy may expose the financial institution **104** to downside risk in the event the underlying commodity's value decreases.

In an embodiment, the user **100** can only spend up to the value of the credit account **112**. Thus, if the user **100** makes purchases driving the value of the credit account to \$0.00 USD, the user **100** will no longer be able to make purchases against the credit account **112** until additional funds are deposited into the deposit account **102**.

As commodity prices can fluctuate drastically, the credit account **112** may lose a significant amount of value if the underlying security's value drops significantly. Thus, the purchasing power of the user **100** can also be limited during any downturns in the underlying commodity's market price.

The financial institution **104** can alert the user regarding any fluctuations in the underlying commodity and value of their credit account **112**. The user **100** can set alert limits, for example, requesting an alert when the underlying commodity price fluctuates more than 5% in a given time period, such as a week. In another example, the user **100** can set alert limits requesting an alert when the underlying commodity price decreases or increases by a certain amount or percentage. The user **100** can also request that alerts are sent on a more frequent basis, such as every hour, or when the commodity price fluctuates 1% in a given direction at any time. In another embodiment, alerts can be sent to the user **100** when there is breaking news or extended coverage of a commodity which may affect the market value of the commodity price.

The user **100** may receive these alerts via various means, such as e-mail messages, text and multimedia messages, automated phone calls, facsimile, updates on the financial institution's website or Internet portal, at an ATM, or via traditional postal mail. In an embodiment, these alerts may include advertisements or sponsored third-party links which can generate additional revenue for the financial institution **104**.

FIG. 2 is a flowchart illustrating the steps of funding a pre-paid commodity-based credit account according to an embodiment of the invention. In step **200**, the user **100** transfers monetary funds into a deposit account **102** at a financial institution **104**. The user **100** may transfer funds in-person by depositing cash, checks, money orders, or other legal tender or items of value at the financial institution **104**. The in-person location may be a branch, service center, or ATM. The user **100** may also transfer funds electronically from another account into their deposit account **110**. Such electronic means can include wire transfer or automated clearing house (ACH) transfers. In an embodiment, the user **100** may have payroll, retirement account, or brokerage account funds directly deposited into the deposit account **102** on an on-going basis.

Next, in step **202**, after the deposit account **102** has been funded, the financial institution **104** verifies that all deposited funds have cleared and settled. In an embodiment, if the user **100** deposits a check which requires, for example, three business days to settle, the financial institution **104** can issue a

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temporary credit to the user **100**. This allows the user **100** to be able to instantly have commodities purchased on its behalf without having to wait for the deposit account **102** funds to settle, and potentially be subject to negative market fluctuations. The temporary credit is pending a settlement of the deposit account **112** funds, and the financial institution **104** may reverse the credit and debit the user's credit account **112** accordingly in the event that these funds do not clear.

After the financial institution **104** has verified the funds in the deposit account **102**, the financial institution **104** transmits a purchase request to a clearinghouse **106**. The purchase request includes any account information related to the user **100**, the dollar amount of commodity to purchase on behalf of the user **100**, and specification of a particular commodity to purchase (if the user **100** wishes to purchase multiple commodities). In an embodiment, the financial institution **104** may transmit the monetary deposit, or funds equal to the monetary deposit amount, to the clearinghouse **106**. These funds may be used by the clearinghouse **106** to fulfill the purchase request from the financial institution **104**.

The purchase request can be sent electronically through a network configured to route such requests from multiple financial institutions to the clearinghouse **106**. The purchase request can also be transmitted via e-mail, facsimile, or telephone. However, in a preferred embodiment, a high-speed, encrypted, secure communications means is utilized between the financial institution **104** and the clearinghouse **106** so that the transaction can be completed in real-time or near real-time. After receiving the purchase request, the clearinghouse **106** purchases the underlying security per the purchase request instructions.

Next, in step **206**, after the clearinghouse **106** purchases the underlying security per the purchase request, the financial institution makes funds available to the user **100** by establishing a credit account **112**. At its onset, the credit account **112** balance reflects the value of the underlying commodity based on the funds deposited in the deposit account **102**, minus any transaction or service fees, or commissions. These transaction or service fees, or commissions, can be charged by the financial institution **104**, the clearinghouse **106**, or any third-party entities involved with the purchase and settlement transaction. Furthermore, the balance available to the user **100** is constantly updated and changing as the price of the underlying security or securities fluctuates.

After the credit account **112** is established, the financial institution **104** can issue a purchase card to the user **100** that enables the user **100** to make purchases against the credit account **112**. In an embodiment, the purchase card is compatible with existing credit card processing terminals and merchant processing terminals, and the purchase card is accepted worldwide wherever traditional credit and debit cards, such as Visa, MasterCard, Discover, and American Express, are accepted.

FIG. 3 is a flowchart illustrating the steps of making purchases from a pre-paid commodity-based credit account according to an embodiment of the invention. In step **300**, the user **100** presents a purchase device, such as a purchase card, associated with the pre-paid commodity-based credit system to a merchant **110**. The purchase device can be issued by a financial institution **104** or a third-party card issuer or service provider.

In an embodiment, the purchase device can be a key fob or a mobile device configured to act as an information transmitter. In this embodiment, the key fob or mobile device can be communicatively coupled to the card reader via a short-range communication protocol, such as Bluetooth or RFID.

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Next, in step **302**, the merchant **110** scans, swipes, or otherwise captures data from the purchase card through a reader, such as a card reader, and transmits a purchase request to the financial institution **104**. The purchase request can include information such as the user's account number, the requested purchase amount, and/or a merchant identifier. The purchase request can be transmitted from the merchant **110** to the financial institution **104** via an electronic merchant payment gateway. The term "merchant" is not limited to brick-and-mortar stores, but also online merchants, e-commerce web sites, and auction websites.

Next, in step **304**, the financial institution **104** reviews the purchase request from the merchant **110**, and compares the requested purchase amount against the available credit in the user's credit account **112**. If there is sufficient credit available in the credit account **112** to cover the purchase amount, then, in step **308**, the financial institution **104** authorizes the purchase and debits the funds in the credit account **112** by the purchase amount. If, on the other hand, there is not sufficient credit available in the credit account **112** to cover the purchase amount, then, in step **306**, the financial institution **104** declines or denies the purchase request, and the user **100** is prevented from completing the purchase.

In determining whether there is sufficient value in the credit account **112**, the financial institution **104** determines the current market value of the underlying commodity, and uses this value to calculate the available credit of the credit account **112**. The user **100** has a purchase limit equal to the available credit of the credit account **112**.

If the financial institution **104** approves the purchase request from the merchant **110**, then the financial institution **104** issues a sell request to the clearinghouse **106** in the amount of the purchase amount.

In another embodiment, there is a third-party payment processing entity between the merchant **110** and the financial institution **104**. The payment processing entity can interface the financial institution **104** databases and authorize or decline the purchase request on behalf of the financial institution. In yet another embodiment, a third-party pre-paid commodity-based credit account service provider (not shown) can be located between the merchant **110** and the financial institution **104**.

FIG. 4 is an illustration of an automated teller machine display according to an embodiment of the invention. The user **100** can make deposits, withdrawals, transfers, and check their account balance through an ATM **400**. The ATM **400** can be associated with the financial institution **104**, or a third-party service provider that manages the pre-paid commodity-based credit account system. The ATM **400** includes a display **402** which can display various account information, such as a user name, account number, and market time. The display **402** also shows the available credit balance. In display section **404**, the number of units owned of each commodity, the current market price of each commodity, the value of each holding, and the percentage and/or dollar value change in the holdings is shown. If the user **100** has multiple commodities underlying their credit account **112**, then each commodity and value breakdown is displayed as well in display section **404**. The user is displayed the percentage change in their available credit balance in column **406**. In a preferred embodiment, the available credit balance is adjusted in real-time on the display **402** as the market price of underlying commodity fluctuates.

In an embodiment, the ATM **400** also has menu buttons **408** which allows the user **100** to withdraw funds in the form of cash, deposit funds to their deposit account **102**, and transfer funds between accounts. A "Balance Inquiry" button allows

the user to print their account statement, or have the statement electronically sent to the user **100** via email or text message.

FIG. 5 is an illustration of an Internet portal according to an embodiment of the invention. The portal **500** can be accessed by the user **100** using any type of computing devices, such as a computer, portable digital assistant (PDA), netbook, mobile phone, iPod, iPad, Blackberry, or any other portable device that is Internet-enabled. The portal **500** can be security encrypted and require a user password or PIN for access. The portal **500** can be managed by the financial institution **104**, or by a third-party service provider that manages the pre-paid commodity-based credit account system.

After logging into the portal **500**, the user **100** will see the current market time, their available credit balance **504**, and various other information relating to the account. The account details section **506** lists all of the commodities owned by the user **100**. The account details section **506** displays the number of units owned of each commodity, the current market price of each commodity, the value of each holding, and the percentage and/or dollar value change in the holdings. For example, in FIG. 5, the user **100** owns two units of gold bullion having a current market price \$1,000 USD per unit. Thus, the total value of the user's gold bullion holdings is \$2000.00 USD.

The portal **500** also displays the change in value of the commodities for the user **100**. Column **508** shows that since the user **100** bought gold bullion, the user's gold bullion value have increased by approximately 5% due to an increase in the market price of gold bullion. Conversely, the user's sugar value has decreased by 25% due to a decrease in the market price of sugar. In an embodiment, the user **100** can click on any commodity holding and a detailed screen will appear with additional charting, trends, news, and information related to the particular commodity.

In an embodiment, the portal **500** also has menu buttons **502** which allows the user **100** to electronically withdraw funds to another account, electronically deposit funds to their deposit account **102** from another account, and electronically transfer funds between accounts. A "Transaction List" button allows the user to view account statements, pending transactions, and other information related to merchant purchases and account debits and credits.

The available credit balance and other figures can be displayed in United States Dollars, or any currency preferred by the user **100**. For example, if the user **100** resides in France, the balance and figures can be displayed in Euros, and all corresponding financial transactions that occur on the system (purchasing, selling, withdrawing, etc.) can occur based on the country of residence or current location of the user **100**. Furthermore, if a user **100** initiates a transaction in France with a French merchant, the transaction amount will be computed in Euros, and the corresponding amount of commodity that will be sold to satisfy the transaction amount will be computed in Euros.

The portal **500** can include a chart **510** that displays overlapping trends of each commodity that the user **100** owns. The chart **510** can be toggled to display year-to-date, daily, monthly, weekly, etc. metrics. The chart **510** allows the user to visually compare the performance of each commodity simultaneously.

In an embodiment, various versions of the portal **500** can be developed for various platforms, such as mobile phones and PDAs. These versions may contain a different layout but will still convey substantially the same type of content and information as portal **500**.

In another embodiment, the portal **500** can include advertisements or links **512** to third-party vendors and companies operating in the commodity trading space. These third-party

advertisements and links can be paid-per-click links which produce additional revenue for the financial institution **104**.

In yet another embodiment, the financial institution **104** can issue gift cards that are based on an underlying commodity. For example, the user **102** can purchase gold bullion, and have the value of the gold bullion placed on a gift card for another person to use. The creation and use of a gift card is similar to the process described above for a purchase card, however, the credit account is not in the name of the user **102**. The gift credit account can be a generic account at the financial institution **104** that holds various gift commodities, with each commodity or group of commodities assigned to a specific gift card.

In another embodiment, the user **100** can use the credit account **112** as a savings account, where withdrawals and transfers in the account may be limited, and the financial institution **104** may provide an interest on balance of the credit account.

In yet another embodiment, actual commodities are not purchased on behalf of the user **100**, but instead, exchange traded funds, mutual funds, or securities whose holdings are primarily commodities are purchased. In this embodiment, the clearinghouse **106** may be a brokerage house which facilitates the purchase of such investment vehicles. Examples of these investments include SPDR Gold Shares (GLD), Fidelity Select Natural Gas (FSNGX) and ProShares Ultra Oil & Gasoline (DIG). The principles described above may be applied to the purchase of commodity-based investments, instead of physical commodities.

In another embodiment, the user **102** can borrow against the available funds in their credit account. For example, if the value of the user's credit account rises above their initial deposit, the user **102** has essentially created equity in their investment. The financial institution **104** may allow the user **102** to borrow against this equity.

The user **102** may also borrow funds directly from their credit account, regardless of whether they have a positive or negative balance from their initial deposit. In this embodiment, instead of selling down or liquidating their commodity holdings, the user **102** can borrow directly against their commodity positions. The financial institution **104** may limit the amount that a user can borrow to their initial deposit, to the value of the credit account at any given time, or to a value exceeding the credit account value.

The embodiments of this invention, specifically depositing funds, making purchases, transferring funds, purchasing and selling commodities, and all other related transactions described herein may be conducted on a mobile platform, such as a portable phone, smartphone, iPhone, iPad, Blackberry, laptop computer, netbook, or any other portable device that is capable of accessing a network.

While the principles of this invention have been illustrated in relation to the exemplary embodiments shown herein, the principles of this invention are not limited thereto and include any modification, variation or permutation thereof.

What is claimed is:

1. A method of funding and using a commodity-based credit account, comprising the steps of:
  - receiving a deposit at a financial institution computing system;
  - transmitting a commodity purchase request from the financial institution computer system to an automated clearinghouse;
  - purchasing a first commodity and a second commodity using the deposit through the automated clearinghouse based on the commodity purchase request;

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establishing a credit account at the financial institution computer system, the credit account having a value that fluctuates based on market prices of the first commodity and the second commodity;  
 selling at least one of the first commodity and the second commodity through the automated clearinghouse when the credit account is debited by a purchase transaction; and  
 transmitting an alert from the financial institution computer system to a remote device when the market price of the first commodity or the second commodity changes by a pre-determined percentage in a given time period.

2. The method of claim 1, further comprising the step of transmitting the deposit to the automated clearinghouse, wherein the deposit is used to purchase the first commodity and the second commodity.

3. The method of claim 1, wherein the first commodity and the second commodity are selected from a group consisting of precious metals, energy, agricultural products, livestock, and consumer staples.

4. The method of claim 1, wherein the first commodity or the second commodity is gold bullion.

5. The method of claim 1, further comprising the step of issuing a purchase card to a user, the purchase card linked to the credit account.

6. The method of claim 5, wherein the value of the credit account is debited when the user performs a transaction using the purchase card.

7. The method of claim 1, further comprising the step of deducting a commission amount from the deposit by the automated clearinghouse or the financial institution after the purchase transaction occurs.

8. The method of claim 1, further comprising transmitting an alert from the financial institution computer system to the remote device when the market price of the first commodity or the second commodity changes at least 1% during a given time period.

9. A commodity-based credit system, comprising:  
 a credit account at a financial institution, the credit account having a monetary value based on market prices of multiple commodities, the credit account funded by a purchase of the multiple commodities via a commodity clearinghouse using funds deposited by an account holder;  
 a purchase device associated with the credit account; and  
 a device reader located remotely from the financial institution, the device reader configured to transmit a transaction amount to the financial institution via a network; and  
 an alerting module located at the financial institution, the alerting module configured to transmit an alert from the financial institution to the account holder when the market price of any of the multiple commodities changes by a pre-determined percentage in a given time period, wherein after receiving the transaction amount from the device reader, the financial institution is configured to sell an amount of at least one of the multiple commodities equal to the transaction amount.

10. The system of claim 9, wherein the network is an electronic merchant payment gateway.

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11. The system of claim 9, wherein the purchase device is a card, and the device reader is a card reader.

12. The system of claim 9, wherein the purchase device is a mobile device.

13. The system of claim 12, wherein the mobile device is communicatively coupled to the device reader via a short-range communication protocol.

14. The system of claim 9, wherein the purchase device has a purchase limit equal to the value of the credit account.

15. A method for settling purchases in a commodity-based credit system, comprising:  
 receiving a deposit at a financial institution computer system;  
 funding a credit account by purchasing multiple commodities using the deposit through an automated clearinghouse, the credit account having an account value that fluctuates based on market prices of the multiple commodities;  
 transmitting a purchase amount from a remote terminal to the financial institution computer system;  
 comparing, at the financial institution computer system, the purchase amount to the account value;  
 debiting by the financial institution computer system, the credit account value by the purchase amount;  
 transmitting a commodity sale request from the financial institution computer system to the automated clearinghouse;  
 selecting to sell, by the automated clearinghouse or the financial institution, at least one of the multiple commodities linked to the credit account;  
 selling, by the automated clearinghouse, the selected commodity, based on the commodity sale request;  
 transmitting a proceed of the sale of the selected commodity from the automated clearinghouse to the financial institution computer system; and  
 transmitting an alert from the financial institution computer system to a remote device when the market price of the any of the multiple commodities changes by a pre-determined percentage in a given time period.

16. The method of claim 15, wherein the remote terminal is a merchant terminal.

17. The method of claim 15, further comprising transmitting a denial to the remote terminal from the financial institution computer system if the purchase amount exceeds the account value.

18. The method of claim 15, further comprising the step deducting a commission from the proceed of the sale by the automated clearinghouse.

19. The method of claim 15, wherein the financial institution computer system transmits a batch commodity sale request to the automated clearinghouse after receiving multiple purchase amounts.

20. The method of claim 15, wherein the multiple commodities are selected from a group consisting of light crude oil, natural gas, unleaded gasoline, heating oil, ethanol, electricity, alternative energy, gold, silver, platinum, copper, tungsten, steel, corn, soybeans, wheat, lean hogs, pork bellies, cattle, cocoa, coffee, cotton, and sugar.

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