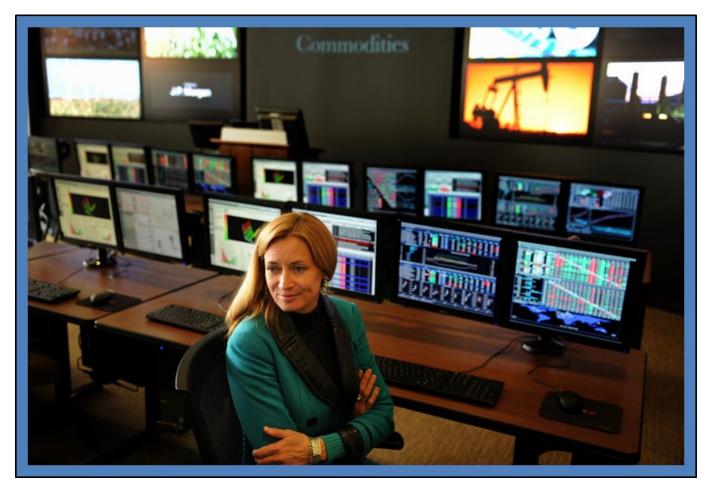


Interview with Blythe Masters

A Global Leader of Innovation across Markets and Asset Classes¹



Former J.P. Morgan senior executive, **Blythe Masters**, during a visit to the JPMCC's commodity lab at the University of Colorado Denver Business School.

Each issue of the *GCARD* includes an interview with a thought leader or innovator in the commodity or digital asset arena. In this issue, we have the immense privilege of interviewing Ms. Blythe Masters, a former senior J.P. Morgan executive, who has distinguished herself as a thought leader and innovator across many disciplines, including in derivatives, commodities, and in digital asset technology. Importantly for this publication, these are all areas which are covered at the J.P. Morgan Center for Commodities (JPMCC) and in the *GCARD*.

Blythe Masters has a special connection to the JPMCC. She was a member of the J.P. Morgan senior leadership team that worked on the bank's \$5.5 million gift to the University of Colorado Denver Business School in 2012. This donation, along with significant contributions from CoBank and George Solich of FourPoint Energy, among others, led to the establishment of the JPMCC.



It is entirely appropriate to review Master's accomplishments, but in order to inject a note of originality in this introduction, we will provide a personal anecdote first. In November 2015, Ms. Masters presented to the Federal Reserve Bank of Chicago's Working Group on Financial Markets² on "How Blockchain Technology Could Completely Change Clearing and Settlement in the Financial Services Industry," which the Contributing Editor of the *GCARD* attended as a member of this advisory group. In presenting and answering questions, Masters spoke without hesitation in complex paragraphs, only pausing for breaths. The next day she was to travel from Chicago to London to provide a similar presentation to the Bank of England. This brief anecdote illustrates the intelligence and energy level that Masters possesses, and furnishes some insight into the traits that are absolutely necessary for industry participants whom are at the very top of their respective professions.

As for Blythe Master's professional career thus far, she held a number of high-ranking (and high-profile) positions at J.P. Morgan in a career that spanned 27 years at the bank. These positions included becoming a managing director at the age of 28 for her work in commercializing innovative derivatives structures, followed by serving as the Chief Financial Officer of J.P. Morgan's Investment Bank, after which she became the head of J.P. Morgan's Global Commodities division. Masters left the bank in 2014 after successfully selling the bank's physical commodities business to the Swiss commodities trading group, Mercuria.

From 2015 to 2018, Masters served as the CEO of Digital Asset Holdings, which licenses digital ledger technology software to large financial institutions. (An <u>interview</u> with Digital Asset's co-founder, Don Wilson, is included in the Winter 2018 issue of the *GCARD*.) In review, a "distributed ledger is decentralized to eliminate the need for a central authority or intermediary to process, validate or authenticate transactions," explained Belin (2019). As argued by Masters in Lee (2016), the cost-savings potential of this type of shared infrastructure for financial institutions is immense: "We're not talking five, 10 or 15% cuts in costs; we're talking 30%, 40%, 50%. There's only one way to do that and that is to share a mutualized common infrastructure that previously was kept separately and run independently by every market participant."

Master's additional positions include serving as the Chairman Emeritus of the Governing Board of the Linux Foundation's open source Hyperledger Project as well as serving as a member of the International Advisory Board of the Santander Group and as an Advisory Board Member of the U.S. Chamber of Digital Commerce.

Returning to our interview, we ask Masters how she became involved in the commodity industry and also how the structure of the industry has changed over time. In addition, we inquire about her predictions on promising financial technologies, particularly those impacting the commodity markets. As the *GCARD* is an educational institution publication, we next ask Masters on her advice for students involved in her varied areas of expertise. Finally, given Masters' pioneering role with the JPMCC, we conclude the interview with her views on how the JPMCC can continue to provide value to the commodity industry.



Interview with Blythe Masters

How did you first get involved in the commodities markets?

In 1990, I began my third internship for J.P. Morgan, in New York, on August 2nd, the day that Iraq invaded Kuwait, triggering the first Gulf War. I was assigned to the then small commodities desk, which provided full service bullion trading and financial derivatives in oil and refined products. Needless to say, a period of significant market volatility ensued. The experience was fascinating, not just because of the price fluctuations, but because of the diversity of risk management challenges that arose. These included the physical logistics of engineering movements of gold bullion through a war zone. Also this was my first introduction to basis risk: jet fuel swaps provided to airline customers hedged with long crude oil futures positions proved to be exceptionally challenging when the price differential between crude and fuel (the basis) expanded to unprecedented levels.

Later after I graduated in 1991, I joined the commodities business full time, initially as a trader making prices for customers. Later I joined investor derivatives marketing where I advanced the introduction of commodities as an investable asset class and authored the J.P. Morgan Commodities Index.

Many years later in 2007, I returned to the, by then substantially more complex, commodities space to build a full-service physical and financial business across the full spectrum of commodities.

What are some of the major changes that have occurred in the commodity markets over time?

Commodities markets are as old as human civilization itself, with the earliest evidence of trading between settlements dating to 8500 BC, and even that most modern of futures markets, the venerable CBOT, dating to 1848. What is remarkable given that enduring history is the extent of change that has occurred in the past 30 years.

During that time we have seen the emergence of giant forward and futures markets for new commodities including natural gas and LNG, electricity, coal and emissions, which arise from the regulation of polluting activity, and which permit trading in certificates evidencing the absence of emissions of invisible gases!

As the scope of tradable futures and forwards markets has grown, this has enabled greater integration of physical and financial activities, allowing structures in which real-world commodity-intensive operations from mining to refining and beyond are capitalized, financed and hedged to produce far more predictable returns for investors.

As with every other market, the advent of the internet and online trading has also changed commodities markets, attracting a new class of participants enjoying fewer barriers to entry and improved access to information.

Also over this time we have seen the articulation of the case for commodities as an asset class and the corresponding development of index funds as a vehicle for investors. The so-called financialization of



commodities markets has prompted furious debates over its impact on prices and volatility. While transitory price impacts can't be ruled out, persistent ones can be. A more lasting impact is that increased participation has improved liquidity and lowered bid-offer spreads.

What is your outlook for digital ledger technology, including blockchain, particularly its impact on the commodity industry?

Blockchain or distributed ledger technology allows independent entities, which have a common interest in something of value, to share and update a common record, without blindly trusting anyone, safe in the knowledge that the record cannot be changed without the knowledge of the impacted parties.

The technology has several applications in commodity markets which I will illustrate with two examples.

First, supply chains — everything involved from the extraction of raw materials to the distribution of goods—are notoriously complex. They can span hundreds of stages, multiple international locations, multitudes of invoices, payments and letters of credit, and involve many entities, extending over months of time. It's extremely difficult to investigate supply chains and prove provenance when there is suspicion of illegal or unethical practices. They can also be highly inefficient as vendors, suppliers and financiers try to connect the dots on who needs what, when and how.

Blockchain technology has the potential to impact the way extractive industry and related supply chains operate profoundly, delivering a much-needed productivity boost. Blockchain offers a shared, immutable record of all parties' participation, certification, attestation, and validation, facilitating the exchange of critical trade documents, such as bills of lading and letters of credit, between connected users securely and confidentially. This facilitates fewer paper exchanges, faster transactions, fraud prevention, and proof of provenance, sustainability and compliance. Clearly, this can benefit the commercial, financial and operational aspects of commodities markets.

Second, financial market efficiency: in just the same way that blockchain can eliminate the complexity of physical supply chains, it can do the same for financial markets. By creating immutable, secure, shared yet confidential data, the parties involved in financial data processing are able to eliminate the data silos that plague post-trade today. This means faster settlements, fewer errors, greater automation and straight through processing, dramatically reduced reconciliation requirements, real or near real time data for risk management and regulatory reporting, and any number of new services that will be driven by better access to higher quality data.

Given your experience across industry disciplines, what advice might you give to students specializing in financial technology, derivatives, and/or commodities?

My advice for students focused in these areas probably wouldn't be much different than for those working elsewhere:

Sweat the details: there's no substitute for preparedness and thoroughness.



Always make your assumptions explicit: often some of the most significant risks are those which have been assumed away (operational risk, counterparty failure, basis risk, liquidity risk).

Avoid crowded trades: the exit strategy is usually more important than the entry strategy.

Get deep and establish differentiated expertise before you aim to go broad. It is almost impossible to head in the opposite direction.

Study history: what you've experienced almost always falls short of what could happen.

Choose who you work with carefully. Seek out and emulate traits you admire.

How can the JPMCC continue to be of most benefit to the commodity industry?

The center should seek to continue to be a valuable source of education and training, debate, incubation and transparency in markets which generally lack these. Pick up on the hot topics and cast daylight on them, but ground the analysis in fundamentals.

Thank you, Blythe, for this opportunity to interview you!

Endnotes

1 As noted by Shah (2014).

2 The organizer of the Federal Reserve Bank of Chicago's Working Group on Financial Markets meeting in November 2015 was Mr. John McPartland, whom in turn co-authored the article, "<u>Blockchain and Financial Market Innovation</u>," for the Summer 2019 edition of the *GCARD*.

For further coverage of the digital asset markets, the reader is invited to read past *GCARD* articles on these markets.

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Biography

BLYTHE MASTERS

Ms. Blythe Masters is an internationally recognized innovator in derivatives, commodities, and in digital assets. Most recently, from 2015 to 2018 she was the CEO of Digital Asset Holdings, which is using digital technology to enhance settlement and recording of both digital and mainstream financial assets.

Ms. Masters was previously a senior executive at J.P. Morgan which she left in 2014, following the successful sale of the bank's physical commodities business which she built. Between 2007 and 2014 Ms. Masters built the bank's leading commodity business, including market-making, structuring, risk management, financing and logistical capabilities. From 2012, she was also responsible for Corporate & Investment Bank Regulatory Affairs. She was a member of the Corporate & Investment Bank Operating Committee and previously the firm's Executive Committee. From 2004 to 2007, she was CFO of the Investment Bank. Prior to that, she was head of Global Credit Portfolio and Credit Policy and Strategy, responsible for managing the credit and market risks of the bank's retained credit positions. Earlier positions include head of North American Structured Credit Products, co-head of Asset Backed Securitization and head of Global Credit Derivatives Marketing. Ms. Masters joined J.P. Morgan full-time in 1991, after completing a number of internships at the bank dating back to 1987.

Ms. Masters is the former Chair of both the Global Financial Markets Association (GFMA) and the Securities Industry and Financial Markets Association (SIFMA), which represent the common interests of leading financial and capital markets participants and whose missions include building trust and confidence in financial markets. She is a board member of the Breast Cancer Research Foundation and the Global Fund for Women and former Chair of the Greater New York City Affiliate of Susan G. Komen.

Ms. Masters has a B.A. in Economics from Trinity College, Cambridge.