

Miami International Holdings and Advanced Fundamentals Announce Partnership; Proprietary Commercial Real Estate Derivative Products to Follow on MIAX Exchanges

PRINCETON, N.J. – **Aug. 21, 2019** – Miami International Holdings, Inc. (MIH), the parent holding company of the MIAX[®], MIAX PEARL[™] and MIAX Emerald[™] options exchanges (the MIAX Exchange Group[™]), and Advanced Fundamentals, LLC (Advanced Fundamentals), an owner and developer of next generation beta indexes, today announced that they have partnered to develop a complex of proprietary financial products based on Advanced Fundamentals' commercial real estate indexes (CRE Indexes).

Advanced Fundamentals has developed the first series of real estate indexes that blend the attributes of the public market with the private market to create an investment strategy that produces unlevered real estate returns with strong correlations to the National Council of Real Estate Investment Fiduciaries (NCREIF) Property Indexes (NPI), together with real-time pricing, enhanced transparency, and the liquidity of listed securities.

As part of this partnership, MIH has been granted an exclusive, worldwide license to develop and commercialize financial products based on the CRE Indexes. These products will be available exclusively on the MIAX Exchange Group. The first tranche of products, cash-settled options and futures on the CRE Indexes, are expected to be listed in 2020. All products remain subject to SEC and CFTC approval, respectively.

The Advanced Fundamentals CRE Indexes are comprised of four sector based indexes (Residential, Retail, Office, Hospitality) and a Composite Index that measure real-time real estate returns to support hedging, benchmarking, and portfolio allocation strategies for both public and private real estate investors. Indexes are priced using real-time public market data that aggregates over \$600 billion in property values, measuring unlevered returns in commodity pricing such as price per square foot, price per key, and price per unit. The indexes are currently being calculated by Refinitiv.

Thomas P. Gallagher, Chairman and CEO of MIH, said, "We are thrilled to partner with Advanced Fundamentals to bring this unique and much needed product complex to the marketplace. This is a huge opportunity for both parties, and we look forward to a mutually beneficial relationship with Advanced Fundamentals for many years to come." Continued Gallagher, "The launch of this product will also provide new trading opportunities for our member firms and contribute to the overall value of our exchange group."

"While most asset classes have derivatives markets that dwarf the underlying markets, the real estate derivatives market in the United States is almost nonexistent" said Jesse Stein, Managing Principal of Advanced Fundamentals. "The reason for this is simply that a true, real-time valuation measurement index to provide the transparency and correlations required for widespread use and adoption did not exist until now."

David Gwozdz, a Principal at Advanced Fundamentals, added, "With the introduction of the Advanced Fundamentals structured products, the real estate derivatives market could quickly grow to a notional value in line with other major asset classes."

"MIH embraces innovative companies like Advanced Fundamentals, disruptive entrepreneurs and tomorrow's visionaries looking to improve and advance an area of the marketplace that deserves better product offerings," stated John Smollen, Executive Vice President – Head of Exchange Traded Products and Strategic Relations at MIH.

For further information regarding MIH and the MIAX Exchange Group, please visit www.MIAXOptions.com or contact MIAX Trading Operations @MIAXOptions.com.

Corporate Communications Contact: Dominique Prunetti-Miller

(609) 897-1465

dprunetti@miami-holdings.com

About MIH

Miami International Holdings, Inc. (MIH) is the parent holding company of Miami International Securities Exchange, LLC (MIAX®), MIAX PEARL, LLC (MIAX PEARLTM) and MIAX Emerald, LLC (MIAX EmeraldTM and together with MIAX and MIAX PEARL, the MIAX Exchange Group), three fully electronic options trading exchanges.

MIAX, MIAX PEARL and MIAX Emerald leverage the MIAX Exchange Group's industry-leading technology and infrastructure to provide their member firms with traditional pricing and pro rata allocation (MIAX), maker-taker pricing and price-time allocation (MIAX PEARL) market structures, and a hybrid market structure with maker-taker pricing and pro rata allocation (MIAX Emerald).

MIAX Options serves as the exclusive exchange venue for cash-settled options on the SPIKES[®] Volatility Index (Ticker: SPIKE), a measure of the expected 30-day volatility in the SPDR[®] S&P 500[®] ETF (SPY).

The MIAX Exchange Group's executive offices and National Operations Center are located in Princeton, NJ, with a Miami Operations Center and additional offices located in Miami, FL.

To learn more about MIH and the MIAX Exchange Group visit www.MIAXOptions.com.

About Advanced Fundamentals

Advanced Fundamentals specializes in developing indexes that measure real time changes in total returns across multiple sectors of the commercial real estate market to support hedging, benchmarking, and portfolio allocation strategies for both public and private real estate investors.

Further information on Advanced Fundamentals can be found at www.advancedfundamentals.com.

Disclaimer and Cautionary Note Regarding Forward-Looking Statements

The press release shall not constitute an offer to sell or a solicitation of an offer to purchase any securities of MIH or Advanced Fundamentals, and shall not constitute an offer, solicitation or sale in any state or jurisdiction in which such offer; solicitation or sale would be unlawful. This press release may contain forward-looking statements, including forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forwardlooking statements include, but are not limited to, statements concerning the plans, objectives, expectations and intentions and other statements that are not historical or current facts of MIH, together with its subsidiaries, including MIAX Options, MIAX PEARL and MIAX Emerald (collectively, the Company). Forward-looking statements include, but are not limited to, statements about the possible or assumed future results of operations of the Company; the competitive position of the Company; potential growth opportunities available to the Company; the expectation with respect to securities, options and future markets and general economic conditions; the effects of competition on the Company's business; and the impact of future legislation and regulatory changes on the Company's business. Forward-looking statements are based on the Company's current expectations and involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such forward-looking statements.