What's It Worth?

Stockholm (HedgeNordic) – Business valuation is more of an art than a science and is what one might call a "subjective science." However, nobody needs to have complete information and the "perfect" valuation approach in order for financial markets to convey all relevant information and reflect the "correct" market prices. Relying on the premise that "the stock market efficiently prices companies," a Strathclyde's Business School start-up led by a team of former financial sector professionals from Goldman Sachs, JP Morgan, Morgan Stanley and Bloomberg developed a tool that provides real-time valuations for private companies.

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"In finance theory, the stock market efficiently prices companies," says Daniel Broby, director of the Centre for Financial Regulation and Innovation at the University of Strathclyde and one of the three co-inventors of the real-time company valuation technology. "Whether or not fund managers agree with that, there is evidence that actually is the case in aggregate," he tells HedgeNordic. According to Broby, "the technology allows real-time pricing, with private estimated valuations fluctuating in accordance with the systemic movements of the stock exchange."

How does the tool work?

The machine learning-assisted tool essentially combines publicly available data from Companies House in the United Kingdom with financial information from stock markets to estimate the value of private businesses. The process of estimating these market values encompasses multiple steps. "We scrape publicly available financial data and industry classification and then apply a valuation algorithm to establish a rough valuation," explains Broby. He further points out that the technology is equally applicable in the Nordics and elsewhere.

Having obtained a sample of firm-specific financial ratios and the valuation coefficient for a given private company, the technology "then uses the public stock markets as a learning data set to refine the valuation." At the core, the machine learning algorithms seek to find public companies with similar characteristics as the private company, with these characteristics including the growth rate, capital structure, number of employees, cash flow, liquidity data, among others.

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"Taking our sample of ratios from private markets that we have processed using programming techniques, we then use machine learning to assign a more accurate valuation based on current market prices," explains Broby. "The valuations of private companies are not dynamic and are not priced in real-time. Obviously, the valuations we are creating are," he continues. "This is done in real-time and reflects any adjustments, such as discounts for private ownership."

The Benefits?

"We need valuations of private companies frequently," points out Broby. Instant valuations of private businesses are needed "when tax events occur, probate happens, or when new investors come on board a company." Publicly traded companies have observable stock prices and thereby, their respective market values. Private companies do not. The valuation of private companies can often be

a difficult, time-consuming and highly-subjective procedure, considers Broby. "Typically, these valuations take three or four weeks to produce and are costly," Broby tells HedgeNordic.

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"In real-time, the technology can do it for millions of companies simultaneously," says Broby. "Imagine being able to look up the value of your friend's restaurant or the shares in that private company your grandfather gifted you," he points out. "The market movements are reflected in real-time. As such, the price of private equity instantaneously reflects events such as the Covid-lockdown." The market value of a publicly listed company, theoretically, takes into account all publicly available information, and so do the valuations spilled out by technology developed by Broby and his team.

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"We want to give private firms and the entrepreneurs behind them the benefits and freedom that publicly traded companies enjoy, creating a new market and ecosystem that can allow companies develop more rapidly through more easily available financing, thereby benefitting the entire economy," says Broby. The benefits of this real-time company valuation technology can go beyond helping entrepreneurs and private businesses in raising capital. The buy-side, particularly the private equity industry, can also benefit from the use of Unlisted Limited's technology.

"The private equity industry typically only prices their investments once a year," Broby points out. He considers that "the use of real-time valuations will allow portfolios to be more dynamic and better managed." Additionally, "the equity incentivization will become more refined and transparent to both parties." The technology developed by Broby and the Unlisted Limited team "avoids costly annual valuations of private equity. It will, we hope, democratize private equity investment giving shareholders a tangible instant valuation."

Current Development Stage

Developed by academics at Strathclyde Business School, the technology is awaiting patent approval in the United States and is currently undergoing a beta testing phase. The "first to discover" patent in the US "is the culmination of a great deal of academic research into this developing and ground-breaking technology," Broby said last year. "It's merely a milestone in our ambitions."

The technology was assigned by Strathclyde University to Unlisted Limited, a start-up which is effectively a University of Strathclyde spin-out. "They have developed the technology into a minimum viable product and are commercializing into a revenue making business," says Broby. Elaborating on the technology's current stage of development, Broby tells HedgeNordic that "we have got testing currently going on with one of the top accounting firms, two private equity funds and Her Majesty's tax office in the UK." So far, "the valuations that are coming out are within the bounds of reported commercial transactions in private companies."

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Academic research is often perceived to be laborious, narrow and detached from the real world. But the technology developed out of the research conducted by Broby and Unlisted Limited provides a

vivid illustration of how academic research can be used to solve some of today's real-world problems. "Research such as this shows the practical applications of academic techniques and real-world applications," says Broby.