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Rise of the machines

On Oct. 15, the steady-eddy markets in senior securities underwent a 24-hour personality transplant. The 10-year, on-the-run U.S. Treasury note—that paragon of liquidity and safety—raced to 1.84% from 2.20% before racing back almost to where it started. Was this a flight to safety, or a stampede from it?

The latter, we herein conclude. On the agenda is security analysis, regulatory rumblings and journalistic theorizing. CME Group (CME on the Nasdaq) and the Intercontinental Exchange (ICE on the Big Board) are the stocks under the *Grant's* lens. Governmental oversight of those richly valued equities provides the regulatory dimension of the essay. As for the theorizing, we've worked up an idea. Blame for the bond market's own flash crash falls in good part on the rise of infernal machines. Some of these devices are digital. Others are regulatory.

CME Group and the Intercontinental Exchange manage markets in securities, futures, commodities and options. More important for the purposes of this analysis, the companies clear trades. Let us say you are a seller of $10 million of eurodollar futures on the Chicago Mercantile Exchange. CME Group interposes its credit between you and the buyer. It is CME Group, operator not only of the Merc but also of (among others), the Chicago Board of Trade and the Comex, that guarantees settlement. ICE does the same on the many bourses it operates, including the New York Stock Exchange.

As might be imagined, Oct. 15 was a red-letter day for fixed-income trading. The Chicago Mercantile Exchange set an in-house record for interest-rate futures and options volume with 25 million contracts (easily topping the 19.4 million contracts processed on May 29, 2013, amidst the famous "taper tantrum"). There was not one reported wrinkle.

Neither did the clearinghouses make the wrong kind of news in the Great Recession. Giant banks notoriously went to the wall. Not so CME or ICE. Indeed, you can make the case that the clearinghouses were among the worthiest beneficiaries of the financial crisis. The Dodd-Frank act mandates the removal of trading in interest rate swaps and credit default swaps from the big banks' trading desks to so-called swap execution facilities. A SEF clears its trades through a regulated central clearinghouse like the CME. Clearing and transactions-related revenue accounts to well over half of the exchange operators' top lines; in the case of the CME, it generates something like 80%.

Though the crisis passed, Congress had contracted a severe case of AIG-on-the-brain. The lawmakers legislated in the belief that the insurer would have lived if only it had had to post margin against the credit default swaps it wrote so prolifically. Let there be light, the regulators and the politicians therefore commanded—the light of transparent derivatives exchanges.

Indisputable is the demonstrated competence and balance sheet strength of the publicly traded clearinghouses. J.P. Morgan is a well-capitalized bank; its equity amounts to 9% of its assets. CME is a well-capitalized clearinghouse; its equity amounts to 42% of its assets.

In its role as guarantor of final settlement, CME Group enforces strict oversight, Sunil Cutinho, president of clearing operations, tells colleague Evan Lorenz. It conducts stress tests. It models probabilities. It sets margin requirements.

In the event of default, Cutinho continues, the clearinghouse draws first on the defaulter's margin, then on the defaulter's contribution to the exchange's default fund. Only after these funds are exhausted, said our informant, would CME Group have recourse to its own cash, which foots to over $350 million across all exchanges. After the CME's funds are exhausted, the exchange draws down on the mutualized default fund of non-defaulting members, which totals $6.7 billion across all exchanges.

So is all safe and secure in the world of interest-rate trading? Not on your life. The governmental administration of interest rates forecloses that peaceful possibility. Call this fact strike one. Volatility, too, is a kind of semi-controlled price. That's strike two.

We judge that regulatory risk and "model" risk together constitute strike two-and-a-half. New trading technologies introduce the possibility of strike two-and-three-quarters. We'll know it's strike three when there's a breakdown in orderly interest-rate trading. Consider that on Oct. 15, $24.9 billion in par value of corporate debt changed hands, according to Finra. Though well above the 2014 daily average of $19.9 billion, it was a pittance compared to the $7.7 trillion of securities outstanding. No mass of motivated sellers could possibly have liquidated their holdings at anything like the then prevailing prices—artificially inflated ones, at that, in our opinion.

One may say that corporate debt is a special case. It never was, even before the Volcker Rule, a trading market. New and different is the advent of high-speed trading to the swaps markets and the growing prevalence of software-directed bond trading.

Are the Dodd-Frank mandated swap execution facilities up to the challenge? Are the clearinghouses? The overseers of those venues (and of the clearinghouses that serve them) probe and model for adverse outcomes. Or, rather—a key distinction—the risk managers probe and model for the adverse outcomes they know about or can imagine. Proverbially, the costliest (and to be sure, most profitable) outcomes are the ones that few imagine.

On Oct. 15, the money market was the scene of a strange alignment of yields. Unconventionally for any panicky session, repo rates traded higher than the funds rate (thank you, Scott Skyrm, repo expert extraordinaire, for the sighting). Ordinarily, because Treasurys are a port in a storm, repo rates plunge in a crisis. Not this time.

Maybe, then, there was only a crisis of algorithms, for software-driven trading has belatedly come to the bond market. Quoth the J.P. Morgan web site: "Our Quantitative Market Making business integrates our industry-leading algorithms into J.P. Morgan Markets: Streaming click-to-trade, two-way market, as well as the ability to submit orders for outright, custom-defined indices, and strategies that reference underlying U.S. swaps, U.S. Treasury bonds and futures basis." What would a responsible supervisor do with his or her bond-trading automaton when markets become unhinged? "We shut it off immediately," Charles Comiskey, head Treasury dealer at Bank of Nova Scotia, was quoted as saying in an Oct. 27 Bloomberg dispatch.

Though Lorenz is much too young to have seen the Oct. 19, 1987, stock market break, he is not too young to have read about it. He unearthed this telling passage from the 1988 Brady report on portfolio insurance gone awry: "Clearing and credit system problems further exacerbated the difficulties of market participants," the report said. "While no default occurred, the possibility that a clearinghouse or a major investment banking firm might default, or that the banking system would deny liquidity to the market participants, resulted in certain market makers curtailing their activities and increased investor uncertainty."

The trouble with software-directed trading, the market analyst James Bianco observes, is that it's unimaginative. It lacks creativity. Yes, the programmers are brilliant, Bianco allows. "But then they all program very consensus thinking, so that when circumstances align, they all come to the same conclusion at the same time and all rush to market with the same trade (in the case of Oct. 15, 'buy'). Will it happen again? Yes!"

Which returns us to the clearinghouses. They don't command P/E multiples in the high 20s for nothing. Growth stocks, they have flourished despite the recent spell of dampened volatility. They have costs yet to cut and synergies yet to exploit, say the bulls (both ICE and CME have been on the acquisition trail). There are markets yet to conquer—say, just for instance, an international market in natural gas coming on the heels of a future American LNG export boom.

Just as interesting to us are the evident risks. Paul Tucker, former deputy governor of the Bank of England, has called the CME and its ilk "super-systemic" institutions, and he urges the regulators to crack down on them. Fed governor Daniel Tarullo is on record as favoring that the clearinghouses submit to federally administered stress tests. Pimco, BlackRock and J.P. Morgan, among others, have lined up with the interventionists. The clearinghouses distinguished themselves in 2008. Then, again, so did the now hyper-regulated J.P. Morgan.

We earlier made reference to the financial strength of the clearinghouses. That strength is less evident when weighed against their outsize theoretical exposure. Thus, as mentioned, CME musters $350 million in funds earmarked for default remediation; its company-wide default kitty foots to $6.7 billion. The sum of those figures, however, represents just eight basis points of open interest on CME-owned exchanges. Could all markets blow up, or out, at the same time? Could all house prices fall together?

Long-dated puts on the CME strike us as an excellent kind of disaster insurance. The CME January 2016 $65 strike puts are 20% out of the money. Priced at $4.10, the options have an implied volatility of 25.3%, compared to the VIX index's current reading of 14.4%. By way of perspective, the January 2016 $155 strike puts on the S&P 500 ETF Trust, which are 22% out of the money, trade at an implied volatility of 22.5%. Which is to say that Mr. Market judges CME to be no more vulnerable to a downdraft than the market as a whole. The gentleman is wrong about this. If it's protection you want—particularly against credit- and interest-rate related demons—CME has it all over the S&P.

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