The two pages that follow are a wake-up call.

To chat about UBER as the exemplar of so-called Platform Capitalism is to throw dust in one's own eyes.

Blackrock manages \$USIV trillion on software known as ALADDIN for Asset Liability and Debt and Derivative Investment Network.

Global capital is not ruled by ALADDIN although much of it runs on its platform.

Nation-market-states are subjected to its algorisms.

For the evidence of how Blackrock and two other funds raided the Australian stock-exchange see David Peetz and Georgina Murray, 'Restructuring of Corporate Ownership in Australia through the Global Financial Crisis', *Journal of Australian Political Economy*, no. 71, 2013, pp.76-103.

My summary is on www.surplusvalue.org.au

Blackrock and its kind occupy this pivotal place after excess capacity in production blew out to excess latent capital. The obstacles to capital accumulation since the 1970s gave life to financialisation which, in turn, compounds the dislocation of employment as public corporates chase quarterly profit results: the 'L' in long-term stands for loser.

Most of the money that flies around the world at the speed of light is a means of payment, often for speculative trades. Such money-of-account is far from the money-capital that goes on production capital so that wage-slaves can add value to commodity capital.

Blackrock and its web of connections into government agencies and other financial corporates is no conspiracy.

They are fact.

So is the backing that Blackrock's founder, Mr. Fink, gave to a certain whispering assassin and Nobel Peace Laureate.

Humphrey





WALL STREET

BlackRock's Edge

How do you stay on top when your core business is a commodity and you measure profits in hundredths of a percentage point? You build the best risk-management software on Wall Street.

BY ANTOINE GARA

n a large flat-screen monitor perched in front of a framed orange-and-blue Warhol print of Teddy Roosevelt as a Rough Rider, BlackRock's chief operating officer, Rob Goldstein, is looking over the entirety of the financial firm's \$6 trillion in global assets—135 teams with positions in hundreds of markets in 30 countries. He is using software that he's been perfecting for the 23 years he has spent at the company. A simple gray column on the left

BlackRock's secret weapon, chief operating officer Robert Goldstein

reveals BlackRock's activity on this quiet pre-Thanksgiving day: There are some 25,000 trade orders in the market, 77,000 trades

and thousands of collateral calls. A wider view colorfully identifies the specific portfolio managers and traders initiating the moves.

The program is called Aladdin, shortened from the wonky Asset Liability and Debt and Derivative Investment Network, and it can expand and contract like an accordion, from a holistic view of firm-wide risk down to a single trade in a split second. It is the reason Goldstein, 45, is a favorite to run BlackRock one day, despite the fact that he has never placed a trade or made a market call during his tenure. His ascendance at the financial giant speaks volumes about the state of asset management today—a business dominated by the explosive growth of passive index funds all racing to the bottom on fees.

"The ability to have a dashboard for running a firm like BlackRock that's as simple as the dashboard in a car is a remarkable feat," Goldstein confidently states. "One system, one database, one set of models. I know the vast majority of people don't have this."

But what's on the screen in Goldstein's office is only a glimpse of what Aladdin can do. Rick Rieder, CIO of BlackRock's \$1.7 trillion fixed-income business, uses it to track and analyze the risks embedded in his thousands of complex holdings. He loads his \$31 billion Strategic Income Opportunities Fund to show how the portfolio will react to different market environments. A scenario called "Eurozone Breakup" will cost Strategic Income 79 basis points of performance relative to Rieder's targets, Aladdin calculates, displaying asset-by-asset and risk-by-risk where the impact is acute. "China Credit Crunch" would be twice as painful. Strategic Income's biggest potential risk? "Spring 2013," a repeat of the taper tantrum, when the Federal Reserve signaled it would unwind its stimulus efforts, causing bond yields to surge.

"If I buy an asset, I know exactly what it's going to do to the rest of the portfolio," Rieder says. When North Korea fired missiles over Japan this fall, he used Aladdin to check whether he was overexposed to the market and saw he would need to buy about \$400 million of Treasuries to manage the risk.

"Aladdin is like oxygen. Without it we wouldn't be able to function," says Anthony Malloy, CEO of \$238 billion (assets) New York Life Investors, one of hundreds of firms outside of BlackRock paying fees to use Aladdin. Daniel Pinto, CEO of JPMorgan's investment bank, adds, "It allows our clients

to trade across asset classes, conduct sophisticated risk analytics and oversee their portfolios in a very integrated data environment."

It's no accident that a piece of software may be the single most important differentiator for Black-Rock. From the firm's modest beginnings as a bond manager in 1988, CEO and cofounder Larry Fink put data analysis and risk technology at the forefront, instead of treating it as second fiddle to portfolio managers and traders.

"The roots of the organization were founded on the concept of risk management and technology," says Fink. In an era of disruption, BlackRock is reporting record operating margins, and its stock is the best performer on Wall Street, returning on average 23% per year since its IPO in 1999.

Raised in the Canarsie neighborhood of Brooklyn, Goldstein graduated from high school at 16, opting for less expensive SUNY Binghamton over offers from private colleges because his father had promised him a new car. A nerdy Grateful Deadhead, he joined relatively small BlackRock in 1994 at age 20. His small team valued mortgages, producing computer-crunched inBlackRock Solutions. Goldstein was a key leader.

Every time BlackRock gobbled up new assets, Aladdin was refined. Monitoring stocks and European markets were added when the firm bought Merrill Lynch Investment Managers in 2006. Later it gained expertise in ETFs with BlackRock's opportunistic purchase of Barclays Global Investors in 2009 for \$13.5 billion. Another break came during the financial crisis, when understanding exposures to failing firms and assessing potential losses became paramount. In 2008 Aladdin was used by the Fed when it took on the assets of Bear Stearns, and then by the Treasury to rescue the financial system. During the European debt crisis Aladdin was hired by the central banks of Ireland, Greece and the ECB.

Today Aladdin counts some 200 financial firms as clients, with 25,000 users, monitoring some \$18 trillion in assets on the platform. It carries out a quarter-million trades daily and billions of forecasts weekly. Roughly a quarter of Black-Rock's 13,000 staff are devoted to technology, with close to half focused on Aladdin. BlackRock So-

> lutions is on track to generate \$700 million of the firm's \$12 billion in revenues this year, up 15%.

> Aladdin is pushing into retail, where BlackRock believes rigorous quantification of risk and scenario forecasts can help financial advisors and individuals build better financial plans. BlackRock has already made numerous bolt-on investments: FutureAdvisor, Scalable Capital, iRetire and iCapital. Five wealth-management firms, including UBS, are now using Aladdin. If the FAs like the technology, they may also buy BlackRock products.

Besides being career changing, Goldstein's software is a big reason why analysts and hedge funds like Dan Loeb's Third Point gush over BlackRock.

"We see BlackRock as far more than an asset manager dependent on market movements," says a Third Point investor letter. Some, like Macrae Sykes, an analyst with Gabelli & Co., are even comparing the behemoth asset manager to Amazon. "Am-Rock reminds me of the qualities of Amazon," Sykes says, "driving efficiencies for clients, generating strong growth and pursuing a relentless approach to competitive positioning." *



HUMAN?

General Motors says its autonomous vehicles are improving so quickly that it plans to launch a driverless-taxi service in 2019. San Francisco, where GM has been testing 180 self-driving Chevrolet Bolt electric cars, looks like the first market; New York will

likely follow. On a slow, cautious ride through San Francisco's Potrero Hill neighborhood. Forbes found that our driverless car, "Alex," had trouble reading the body language of a guy with a surfboard under each arm trying to cross the street. When a construction worker appeared from between two trucks. Alex swerved and slammed on the brakesa reaction indicative of its programmed abundance

of caution.

GM is bullish on autonomous ride-sharing. At \$2.50 a mile in San Francisco, for example, services like Uber and Lyft are unprofitable because most of the money goes to drivers. Remove them and the cost per mile falls below \$1, which GM predicts will cause demand to soar. Its plan is to scale quickly by mass-producing driverless taxis at a factory near Detroit. The question: Are perambulating surfers—and the rest of the world-ready?

HOW TO PLAY IT BY WILLIAM BALDWIN



As profits in portfolio management shrivel, Black-Rock will rely more heavily on the less commoditized business of risk management. You can follow its lead by investing in companies that assess and address commercial hazards. Fico calculates the risk that a credit card user is a scammer or deadbeat.

Moody's determines the probability that Chicago will default on its bonds. Verisk Analytics can put odds on all sorts of misfortune, from terrorism to roof cave-ins. Exponent is a science-heavy company that does "failure analysis": figuring out, before it happens, how a structure or machine might rust, bust, corrode or explode.

William Baldwin is the Investment Strategies columnist for Forbes.

ternal risk reports, called "green packages" for the paper they were printed on. He hoped his backoffice job would be a springboard to a more glamorous and lucrative post as a bond salesman.

Instead he became more entrenched in the unit as BlackRock turned its risk technology outward, using it to help General Electric liquidate the mortgage portfolio of Kidder Peabody. Then in 1998 a 25-year-old Goldstein led BlackRock's effort to license its analytic firepower to Freddie Mac, which used it to value over \$500 billion in mortgages. By 2000, demand was so great a business unit was formed around the software called

"Like all magnificent things, it's very simple." -NATALIE BABBITT