THE GLOBE AND MAIL

THE WEALTH ISSUE

EXCLUSIVE: RANKING THE COMPENSATION OF CANADA'S TOP CEOS

INSIDE THE MIND OF A LEGENDARY TECH INVESTOR

MARK MACHIN TALKS EQUITIES, ROYALTIES AND THEME PARKS

OUTLOOK FOR 2020: STRUGGLING FOR OPPORTUNITIES

REPORT ON BUSINESS

THE MAGAZINE FOR LEADERS

WEALTHSIMPLE GROWS UP

CAN MICHAEL KATCHEN LEAD THE HEAVILY HYPED UPSTART TO PROFITABILITY?

NOVEMBER 2019

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A motherhood issue

Coincidences happen—in life and in magazines. You can spend months planning an issue and suddenly discover two unrelated articles contain Walt Whitman quotes. Or three writers spoke with the same professor. Or the photographs contain a disproportionate number of cats.

We encountered this sort of happenstance while assembling the latest issue of *Report on Business*. We'd asked Joe Castaldo to explore how Wealthsimple founder Michael Katchen plans to expand his young company. Meanwhile, Trevor Cole interviewed Jodi Kovitz, the founder of #movethedial. Only when the first drafts were filed did we realize that Katchen and Kovitz are siblings.

That the brother and sister are currently at the forefront of their respective fields, at the same moment, is intriguing. It happens—YouTube CEO Susan Wojcicki is the sister of 23andMe co-founder Anne Wojcicki, for example—and when it does, one wonders what was discussed around the family dinner table.

So I decided to ask. Thanks to one additional lucky break, Katchen and Kovitz provided a unique opportunity to explore the common traits driving their successes. Their mother, Karen Katchen, is a psychologist and executive coach with 40 years of experience. "In our family, we deliberately encouraged setting specific goals and expectations for oneself, as well as for others," she told me via email. "Clear boundaries do minimize distractions, retain focus, maintain priorities and help evaluate progress toward goals."

The family also put an emphasis on building emotional intelligence, ensuring the kids were respectful of those around them and equipped to cope with life's setbacks. "We encouraged them to become more flexible and take on new risks and challenges. In the process, they discovered that lack of success and disappointment were potential outcomes," Karen Katchen says. (A third sibling, Amy Baryshnik, is no slouch either. She's a Harvard Business School alumnus who has worked at Alignvest Investment Management.)

Esther Wojcicki, the mother of Susan and Anne, was a teacher for nearly four decades and wrote her own book about raising successful people. Like Karen Katchen, she stressed failure was a necessary part of life. "I never put them in danger, but I also never stood in the way of them experiencing life or taking calculated risks," she wrote in a piece for *Time*. Intriguingly, neither parent focused on academic achievement or technical prowess in their recipe for success.

Now, this isn't a parenting magazine. But many of the traits Katchen says mattered to her family (humility, a willingness to listen, concern for community) come through clearly in our reporting on her grown children. They're valuable traits for business—regardless of where you learn them. **/James Cowan**

Send feedback to robmagletters@globeandmail.com

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The hot list

Our inaugural list of Canada's Top Growing Companies showcased some hot new homegrown products.

Please give us more of these kinds of new innovations, rather than the constant barrage of the doom-and-gloomers. Thanks!
—CINIC11

The trouble with Timmy's

Tim Hortons' Brazilian president, Alexandre Macedo, revealed his plan to restore the chain's tarnished reputation.

While 3G hasn't fixed the problems, the complaints about the coffee and frozen doughnuts and other food has been around for 15 years. In other words, the problems are not related to what nationality the company owners are. In parts of Canada, they have oversaturated the market. McDonald's went through a rough period for several years as well where sales flatlined.
—J.K. Galbraith

Until they address product quality, I think they'll have a hard time attracting customers back.
—MCP211

Interesting that he says he doesn't consider himself a Burger King or a Tim's person. He works for RBI. Translation: He is a money guy. No way you can restore the shine on an iconic brand when you are only driven by dollars.
—Dogsplayingpoker

Tim Hortons should never have been sold to a non-Canadian enterprise. Being 100% Canadian was the biggest part of the attraction and loyalty for Canadians. What were the shareholders thinking? They weren't—only about their pocket books. Well, Tim Hortons is not 100% Canadian anymore, and it can't be restored to its former glory until it becomes 100% Canadian owned and operated again!
—McGuffin Financial

The brand has suffered a body blow since RBI took over, and hockey sticks on doors aren't going to turn it around.
—JOHN13052

Let the Sonshine in

RioCan's CEO opened up about his decision to move away from shopping malls and toward residential real estate.

I have owned RioCan shares for a very long time. What is important is looking at the present and the future. The demand for housing is getting stronger, and the supply is not there. RioCan's rezoned properties could be very valuable, as Mr. Sonshine points out, to supply some of that demand. That would not be enough, but the story here is about RioCan and the ongoing success of one of Canada's largest companies.

There is always risk, but a calculated risk is as good as it gets unless keeping your money under the mattress lets you sleep better. I will continue to stay with RioCan. **—alkapone**

I'd like to know what sort of rents Ed Sonshine is basing his projections on. In Toronto, they are pushing past un-affordable for many people. More unaffordable housing is not going to solve that problem.
—Bob McK

I'll put my faith in Mr. Sonshine, with his decades of experience in all types of development scenarios, and through our best and worst economic times, to make the most of RioCan's assets, wherever those properties are located. **—Gerald.**

I dumped my RioCan shares long ago, when online shopping took off. I am glad they are turning it around, but it did not look good for a while. I cannot even remember the last time I was in a shopping mall, and I have no idea how they stay in business.
—CitizenWhoPaysTaxes

Send us your thoughts at robmagletters@globeandmail.com, tweet us @robmagca

Contributors

Erik Heinrich is an independent journalist whose work has appeared in the *Los Angeles Times*, *The Washington Post* and *Maclean's*.

Photographer **Natalia Dolan** specializes in people, and she loves working on projects that drive social change. "I have a personal photo project that focuses on women in STEM, so it was super to shoot Jodi—a woman working to close the tech gender gap."

Markian Lozowchuk is an award-winning photographer whose love of portraiture stems from the five years he spent travelling the world. He has contributed to *The New York Times*, *GQ*, *Men's Health*, *Toronto Life* and other publications.

Château Margaux, Margaux, France

Indulge in tasting notes enchanting enough to inspire an opera.

DAY 5 In 1887, the Spanish composer Manuel Fernàndez Caballero was so taken with Château Margaux's irresistible wine that he penned an eponymous opera that is still performed today. The first time your lips touch one of their unparalleled vintages (classified as a Bordeaux *Premier Cru* in 1855) you'll feel the same rush of inspiration. Yet, it will be only one of countless unforgettable moments on your 10-day journey.

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Chantilly	Chantilly	Cadillac	Cadillac	Pauillac	Blaye	Libourne	Bordeaux	Bordeaux	Bordeaux	Bordeaux

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THE GLOBE AND MAIL

TL;DR

11/19

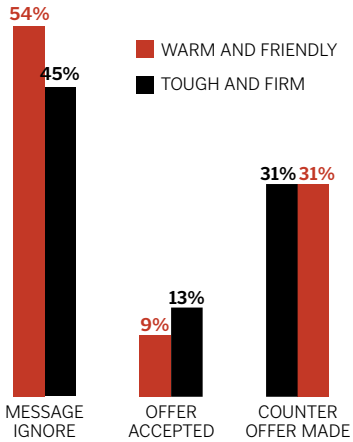
TOO LONG; DIDN'T READ

SEVEN IDEAS YOU NEED TO HEAR

1

NOBODY LIKES A NICE GUY

"Negotiators with a tough and firm communication style achieved better economic outcomes than negotiators with a warm and friendly communication style," according to a new study in *Management Science*. Researchers sent messages with distinctly different tones to individuals selling smartphones on Craigslist, offering a lower price than listed.



2

Offices need better pot policies

58% of employers are concerned about the effect of legalized cannabis on workplace safety, according to the Conference Board of Canada. Yet 78% have no clear policies for what level of consumption equals "impairment."

3

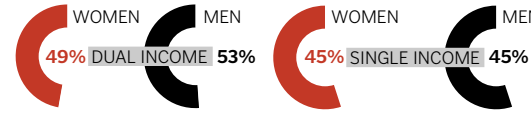
Money still matters for recruiting

49.1% of business students say future earnings are the most attractive attribute in an employer, according to a global survey by Universum, an employer branding firm.

4

Managers are more inclined to help two-career households

Men and women in couples where both partners have jobs are more likely to report their bosses help them with work-life balance, compared with individuals in relationships where only one person is employed, according to McKinsey.



5

JUST BECAUSE SOMETHING IS COMMON DOESN'T MEAN IT'S POPULAR

"People can display a commonness fallacy—overestimating how often common (but bland) options (e.g., vanilla ice cream) will be chosen over rarer (but exciting) options (e.g., tiramisu)."
—Emily Reit and Clayton Critcher, *Journal of Personality and Social Psychology*

6

Online shoppers hate to be surprised by shipping costs

Higher-than-expected shipping costs were the top reason consumers abandonned an online order, according to a UPS survey of 18,000 shoppers.

49% THE COST OF DELIVERY WAS HIGHER THAN ANTICIPATED

34% ITEM WAS OUT OF STOCK

19% ITEM WAS NOT GOING TO BE DELIVERED IN TIME

11% I DID NOT LIKE THE RETURNS POLICY

7

Cutting air pollution means more corn

A dramatic reduction in nitrogen oxide emissions from U.S. power plants resulted in a significant hike in crop yields, according to research in the *American Journal of Agricultural Economics*. As emissions fell from 2003 to 2013, corn yields increased by **2.46%** and soybeans by **1.62%**. Demand didn't also grow, so prices dropped. The result was consumers were "better off and farmers worse off," the researchers concluded.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For what it's worth

An experiment with ice skates offers insight into how consumers determine how much they'll pay for a product

ILLUSTRATION ISRAEL G. VARGAS

It was just before Christmas 2014 when Charan Bagga began using a skate rental shack in London, Ont., as a laboratory. For 10 days, the marketing professor and his research assistants from the University of Calgary Haskayne School of Business provided patrons of a nearby outdoor skating trail with equipment. Some were charged $6 per hour for skates; others were told the gear was free because of a "special promotion." In effect, those latter individuals were just borrowing the skates, not renting them—an important distinction.

When the skaters returned, Bagga's team asked them a series of questions. The most important concerned their "willingness to pay" (WTP in psychology speak), or how much they would pay to buy the skates. Those who rented them had an average WTP of $38.97. For those who got the skates free, it was just $26.

These were intriguing findings for Bagga, who hypothesized consumers who felt a "psycho-

logical feeling" of ownership over a product would be willing to pay a higher price to eventually buy it, regardless of whether it was a pair of skates or a rent-to-own dishwasher. "If you rent an apartment for a long period of time, you can develop strong feelings of ownership toward it," he says.

This has significant implications in an era when consumers are renting everything from power tools to Gucci handbags. Companies such as Le Tote and Rent the Runway, which both hire out high-fashion items, now compete with luxury retailers. Meanwhile, the stock price for Aaron's, a rent-to-own home-goods chain with 1,600 locations across the U.S. and Canada, has risen from about US$25 to US$65 over the past three years.

Through further experiments, Bagga and his fellow researchers determined a feeling of ownership was indeed likely to increase a person's WTP for an item. They also found different types of interactions—borrowing, sharing, using a product during a free trial period, renting and renting to own—triggered varying degrees of ownership feelings.

Bagga and two co-authors recently published their findings in the *Journal of the Academy of Marketing Science*. Among the study's inferences, suggests Bagga, is that rent-to-own and leasing companies can hike the sense of ownership by increasing a customer's control over the product. For instance, a car leasing company could remove monthly mileage limits. "If I can increase the feeling of ownership, then the greater the willingness to pay for that object should be," he says. But the study ought to also serve as a warning to consumers, Bagga says. If you are pondering buying an appliance or even a home through a rent-to-own program, be wary of overpaying. "Just be aware that there are these feelings of ownership you've developed. Take a step back, and look at the object as if you are seeing it for the first time," he says.

Research by the Consumers Council of Canada suggests people may use high-cost financing options like rent-to-own because other alternatives, from service clubs to church groups, are harder to access these days, says Ken Whitehurst, executive director of the council. Financially strained consumers may turn to resellers like eBay, used-goods stores or the rent-to-own industry. But rent-to-own customers often end up paying significantly more for an appliance or a TV than they would have if they had just purchased it outright at a retailer. "What is interesting about behavioural economics research," says Whitehurst, "is that it is increasingly highlighting how rational economic decision making is and how it can be disrupted." Yet, while disrupting and confusing a consumer's decision making might mean greater short-term profits for businesses, it could eventually hurt a company.

In a separate study, Bagga found that unscrupulous deals offered by some rent-to-own operations could actually stunt the feelings of ownership, which in turn affects a consumer's WTP. In rent-to-own evaluations, in which a high percentage of the payments went to the rental fee rather than the item's eventual ownership, Bagga found unfairness became an issue. "For that feeling of ownership, you should first find that transaction to be fair. You should find that object to be desirable," he says. And when it's not, he adds, consumers tend to "walk out of these transactions, because they feel a particular company is taking them for a ride." **/Anthony A. Davis**

WHEN PEOPLE ARE HAPPY TO PAY MORE

› The cost of airline travel is a constant source of irritation for consumers. But travellers are willing to pay extra if the money is being used to combat climate change, according to new research from the UBC Sauder School of Business. Since it has become popular for travellers to buy offsets to mitigate the damage caused by airline travel, David Hardisty, a marketing professor, and his colleagues began testing attaching a hypothetical $14 "carbon fee" to a ticket purchase. In a survey of 1,800 respondents, the researchers found consumers would happily pay the money—if it was described correctly. Individuals consistently favoured a "carbon offset for aviation fuel production and import" over a "carbon tax for airplane travel." The difference? People feel taxes take their money for no reason; an "offset" suggests a surcharge with a purpose. **/James Cowan**

YET ANOTHER REASON TO LEAVE THE OFFICE

In theory, international expansion should be easier for a company selling digital products compared with physical ones. There's no need for overseas factories or distributors. What could be simpler than peddling online software or dropping an offering into an app store?

It turns out that going global with a digital company isn't that straightforward, according to research out of the Ivey Business School at Western University. "When trying to go global, [digital firms] run into similar issues as traditional businesses," says study author Maximilian Stallkamp.

One challenge is learning to navigate a new regulatory environment. Cultural constraints are another. "You may need boots on the ground to do customer service, training, sales and so on," says Stallkamp.

It's more complicated for a digital product with a real-world component, like ride shares or delivery services.

Stallkamp interviewed a range of digital firms in North America, Europe and Asia. He found that nearly all of them had to establish a physical presence, to varying degrees, when expanding abroad. "Many successful companies bounced between the two extremes for a while before figuring out what works for them," he says. "There's no one-size-fits-all approach." **/Liza Agrba**

S&P 500 INDEX

pen with climate change. We're flipping a coin, and it's weighted somehow, but we don't know how it's weighted."

Riordan used Hurricane Sandy as a proxy for studying how uncertainty affects behaviour on trading floors. Risks associated with a hurricane can normally be evaluated, but Sandy was different. A hurricane of that magnitude hadn't touched down in New York City since 1821—that is, before Wall Street was Wall Street. Since there has been no equivalent storm, any changes in the markets would be treated as uncertainties, rather than risks, says Riordan.

"If something risky happens, and it's a negative event, you'll see a one-time adjustment in the market. There's a blip down in the trend line, a blip up, and away things go," he says. "But uncertainty causes the whole trend line to flatten."

To conduct his research, Riordan focused on a sector likely affected by Hurricane Sandy—real estate. The researchers compared the performance of publicly traded real estate investment trusts (REITs) with properties inside New York's evacuation zone against those with no assets in the storm's path. A REIT with just one-tenth of its portfolio in the zone saw 16% to 31% lower trading volume than one with no assets in the area. "What we find in our paper is the effects of uncertainty cause trading to slow, liquidity to get worse, and prices to depreciate just as a result of anticipation of something that traders can't predict," says Riordan.

One of Riordan's findings is that a climate shock creates financial losses beyond those caused by physical damage. And those losses are difficult to tally. You can assess the cost of damaged buildings and equipment. But it's difficult to know how many trades simply didn't happen because investors couldn't adequately assess the risk.

Some researchers consider these challenges in terms of acute versus chronic risk. In the context of climate change, acute risk refers to weather events like hurricanes, floods and so on. Chronic risks—like rising sea levels, increasing temperatures and melting polar ice caps—might cause more weather events. But they can also present a unique set of challenges that can't be accurately assessed, since they have no historical precedent. "We have a lot of empirical research when it comes to certain acute events, because we've experienced them," says Emanuele Campiglio, an assistant professor at the Vienna University of Economics and Business who leads research efforts in climate economics and finance. "But chronic risk is still treated very speculatively."

IT'S DIFFICULT TO KNOW HOW MANY TRADES DIDN'T HAPPEN BECAUSE INVESTORS COULDN'T ASSESS THE RISK

There are steps that individual traders could take to adjust to this new, uncertain world. One option is shifting portfolios toward low-carbon companies. "There will be winners and losers in a changing climate. Tilting your portfolio toward firms that are contributing to positive changes, or supporting the fight against climate change, I think will do better in the long term than firms that are contributing to it," he says.

But addressing the larger issue will not prove easy. Climate change creates risk and uncertainty, but so will any effort to avert it. Proposals to "decarbonize" the economy create a new set of variables. "We've had paradigm shifts in finance before, but nothing close to decarbonization. That creates issues for financial investors, because the outcomes are hard to grasp," Campiglio says. Decarbonizing the global economy also means a host of transitional risks—that is, those associated with restructuring—for both companies and the financial system as a whole. Some companies will have to completely reinvent themselves, while others cease to exist altogether. "It's very difficult to attach a distribution of probability to these scenarios," says Campiglio. If that's true, and Riordan is right about the economy-dampening effects of uncertainty, financial markets are in for a serious shakedown as the climate crisis worsens.

Campiglio says policy makers will likely need to take the lead on addressing climate change, since financial institutions remain beholden to economic models. "We have financial institutions that are willing to act, but they have certain limits to what they can do," he says, adding that the techniques used to assess risk might never catch up with the threat posed by a shifting climate. "There may never be a moment when we have an agreed-upon risk-assessment methodology in which we can say with certainty that green assets are less risky than brown. But the point is that we want to avoid climate change, so we need to act anyway."

/Liza Agrba

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Stephane Massinon, *Director, Public Relations; Haskayne School of Business*

Smith SCHOOL OF BUSINESS Queen's University

Yolande Chan, *Associate Dean, Research at Smith School of Business*

Nancy Evans, *Executive Director, Marketing and Communications, Smith School of Business.*

BIG IDEA

The uncertainty of climate change

The costs of extreme weather are often tallied in damaged equipment and goods. But new research suggests some of the damage is going to be far harder to see

When Hurricane Sandy hit New York City in 2012, it forced the closure of the city's stock exchange for two days, the longest weather-related shutdown of the institution since a blizzard in 1888. A 30-member team slept at its headquarters, working tirelessly to bring the exchange back to life, even as the surrounding financial district was still flooded. The storm demonstrated the challenges posed to financial markets by climate change. Now, Ryan Riordan, a professor at the Smith School of Business at Queen's University, has used the experience to study how to prepare for inevitable future climate shocks.

The extreme weather events associated with a warming planet can cause instability in financial markets, stemming from everything from flooded servers to disrupted supply chains. But the success of the markets rests on their ability to understand and respond to risk. What happens when they confront events where the concept of risk, as most people understand it, doesn't even apply? That's one of the biggest challenges posed by global warming. Researchers are increasingly suggesting these weather events don't fall into the category of risks, but rather, the more problematic area known as uncertainty.

From an economic perspective, risk applies where the outcome of a situation is unknown, but there is sufficient data to build a probability model for various outcomes. Flip a coin, and there's a 50/50 shot you'll guess right. That's the type of risk that financial markets are built to handle. Typically, there's a historical precedent. Even relatively complex events, like floods and droughts, have occurred often enough for economists to build reliable probability models.

In an uncertain situation, there's not enough information to establish probabilities. Not only is the outcome unknown, but there's no reliable way to weigh possible outcomes. And when you can't put odds on an outcome, investors tend to get nervous. That's exactly what markets face in the age of climate change, according to Riordan.

"We've never observed the climate changing like this, and we've certainly never observed an economy during such a situation," he says. "No one can credibly predict what's going to hap-

ASK AN EXPERT

Does it rhyme with Drump?

"I really hate a certain politician. Am I going to hurt my business by saying so in public?"

We live in highly political and polarized times. When a certain political someone says something outrageous on Twitter, it's only human to have opinions and want to express them. But chatting around the water cooler and commenting publicly are very different, explains Deirdre Campbell, managing director at Beattie Tartan, a public relations firm. Campbell suggests separating church and state. "As a rule, try to keep politics out of your day-to-day business," she says. This is sage advice for rank-and-file workers, but bosses should know their position brings extra responsibility. "When you're the founder or owner, you represent the whole company and everyone who works there, and their values," Campbell says. "It's very possible your employees don't feel the same way."

Conversely, sometimes staying silent is even worse. "If something happens that is truly against the values of your company and you feel you must speak up, then do it right," she says. Don't be hasty and turn to social media to spew out the first expletive that comes to mind. Put down your phone, calm yourself and wait. "Sometimes 12 hours later we know more information and the story is completely different. If not, and if you still feel the same way by morning, then okay," Campbell says. Remember, the point is to display your company values, not your personal vendettas, so criticize the issue rather than the person. Better yet, showcase a way you're addressing that very issue within the company, whether it's through advocacy, fundraising or other support.

My HR department wants to take our employees to play paintball as a team-building exercise. Is this a waste of time?

Recent years have seen team-building activities expand in scope. It used to be enough to stage a trust fall, but now there are treasure hunts, escape rooms and, yep, paintball. "If the paintball involves strategy and collaboration, and offers lessons to be learned, then it's not a waste of time," says Jackie Slavenova, CEO of Team Academy, a corporate training firm in Vancouver. But a successful event isn't as simple as shooting some paint pellets. "We work with organizers to find out the needs and expected outcome of the activity, and then custom-design every event to fit the client," she says. Big companies are smart to invest in trained facilitators. Smaller ones can use the same strategy by determining their ideal result—and then working backwards to achieve that outcome. Keep in mind that the best team-building activities offer "a variety of tasks that lets everyone participate and shine in their own way," Slavenova says. That is, not everyone will be excited about firing a gun.

Does bringing my dog to work make me seem like a cool boss—or just an entitled one?

That depends equally on the dog and the workplace, explains Julie Blais Comeau, an Ottawa-based etiquette expert. "Firstly, the dog must be healthy, potty trained and sociable," she says. But even the sweetest animal in the world won't be liked by everyone. "Some people are petrified of dogs; some people have allergies; some people just don't like dogs," says Comeau. You need to know if any of these people are on your team before a surprise visit from Spot. Keep it simple: Just ask. Companies like Amazon make zoo therapy and bring-your-dog-to-work day look effortlessly cool, but they've done detailed surveys to create clear guidelines. And remember that rules are for everyone, including you, so if your pup is the only pet invited to the office, it's better to leave him at home. **/Rosemary Counter**

Send your questions to **askanexpert@globeandmail.com**

ILLUSTRATION JOE MCKENDRY

ILLUSTRATION KYLE SCOTT

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Founder and CEO of SmartSweets

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TURNING POINT

Sweet dreams

Tara Bosch knew she had to kick sugar before her addiction got any worse. Then she had an epiphany: Why couldn't she create candy that wasn't bad for you?

I've been a sugar addict my whole life—and I really was an addict. Eventually, I realized it was affecting my health and how I felt about myself. So I quit.

But I missed candy. Meanwhile, you were starting to see healthier versions of chips, ice cream and pizza. But in candy, there was no innovation where you could feel good about it.

I was just finishing my second year at the University of British Columbia in Vancouver. I was in the arts department, but I wasn't passionate about anything, so I ended up just taking a lot of German classes. I thought that if I could speak German to my grandma—who's also a sugar addict and has a lot of health problems because of it—that'd be a win.

It was after a conversation with her about sugar that I started thinking: I want to feel good about candy again—so why can't I?

The challenge with reinventing candy is that it's 99.9% made of sugar, so you're starting from the ground up. I started reading food journals to learn about ingredients that could replace corn syrup, which is the bulking agent in candy. I ordered some gummy-bear moulds on Amazon and started experimenting. It was late summer, and I was living in a basement apartment, working in a tiny kitchen with some pretty retro equipment. My dishwasher had a manual hookup, and I was running it all the time to get the goop off the thermometers. You cook candy at really high temperatures, and the steam would go out my window and into my landlord's kitchen. They thought I was cooking cannabis gummies.

I went through well over 200 recipe iterations, trying different plant-based fibers to mimic the corn syrup. I leaned on raw-material suppliers for help—they wanted to sell those ingredients to me, so they would open up the expertise of their scientists. Of course, I never disclosed that it was just me in my kitchen with my moulds.

I went through failure after failure, but I finally landed on tapioca fiber as the bulking agent and stevia for sweetness. I had been using stevia for years. It's an extract from the stevia rebaudiana plant, and it's 100 times sweeter than sugar. The biggest challenge is that it has an aftertaste, so I really had to work to balance the sweetness of the product with that aftertaste.

Finally, I landed on a recipe that was 90% there in terms of taste and texture. That final 10% would come from scaling up for manufacturing.

I dropped out of university, and less than a year later, SmartSweets were on store shelves. By the end of 2019, we'll have revenue of over $50 million, and we'll be in 20,000 stores. That includes all major Canadian grocers, along with Cineplex and most of the regional chains, like London Drugs and Bulk Barn. In the U.S., Whole Foods was one of our first big customers. But we're also launching nationwide at Kroger, Target and other chains, and in the checkout aisle at 500 Walmart stores.

Jeff Bezos likes to say that at Amazon, it's always day one. It's about having that urgency—that we could still fail any day. But at SweetSmarts, we're just getting started. **/Interview by Dawn Calleja**

PHOTOGRAPHS NATALIA DOLAN

THE EXCHANGE

Dialled in

Jodi Kovitz is pushing to increase the number of women in the upper echelons of tech. It's a tough mission, but she's optimistic. /By Trevor Cole

Jodi Kovitz uses all of her tools—enthusiasm, inflection, honesty, insight and a constant swirl of hand movement—to tell the backstory of #movethedial, her social enterprise to help women succeed in the tech industry. As origin stories go, it's more elaborate, and engaging, than something concocted by Marvel, a tale of resilience, serendipity and perpetual optimism. The key moment, the story's turning point, came after Kovitz became CEO of AceTech Ontario. That non-profit (later called Peerscale) was focused on the career development of software-as-a-service executives, who Kovitz noticed were predominantly middle-aged men. So in January of 2017, when she hosted a Toronto event for a group of women entrepreneurs she'd met in Israel, Kovitz expected perhaps 30 attendees. Instead, thanks to social media, she got 1,000. That event grew into what she calls a "movement." At a time when only 5% of Canadian tech companies have a woman CEO and the gender pay gap is stuck wide—not to mention troubles at companies like Uber and WeWork illustrating the toxicity of some male-dominated workplaces—Kovitz remains positive. She'd rather encourage change than complain. What she's fighting for is more good news.

Why focus on tech?
It's an industry that has a massive gap, and it is our future. All companies will rely on technology. So it's really important that we bring more diversity of thought into the industry.

Why are there so few women in tech right now?
Role modelling, to me, is one of the key reasons. You can only be what you can see, and you haven't historically seen many women as tech icons. And the pipeline has been a huge challenge: getting girls interested and curious about pursuing STEM (1) careers. We have to change the perception for girls, that it's not just for boys to do coding. That means we have to expose girls to tech in a different way at times, and expose girls to career options and role models. When you don't see women at the top, it makes you think you can't be successful. So you don't go into it. That causes the pipeline problem, and it goes in a circle. (2)

And what's the inherent problem of having so few women in tech?
I sort of see it as a three-fold problem. One, the moral imperative is absolutely clear: equality of opportunity, bottom line. On top of that, look at Canada. We are trying to compete globally through our tech talent and our homegrown tech companies for the future of our economy. I don't see how we can win globally leaving out 50% of the population. Last, and most important, is the fact that if you leave a disproportionate amount of women-identified people out of the actual design and building of the tech, and making the strategic decisions, you will not

1. Though women made up 56% of Canadian university grads in 2010, they earn only 29.6% of STEM (science, technology, engineering and math) degrees.

2.

THERE ARE SOME SERIOUSLY POWERFUL WOMEN IN TECH IN THE UNITED STATES, BUT VERY FEW HERE IN CANADA

Sheryl Sandberg
COO of Facebook

Angela Ahrendts
Head of Apple retail

Susan Wojcicki
CEO of YouTube

Ginni Rometty
CEO of IBM

Safra Catz
Co-CEO of Oracle

be designing technology that is relevant for all. (3)

How would you describe what you do—are you a consulting firm?

We offer some consulting services in partnership with experts who do that work. We offer corporate partnerships with companies that work with us to advance what they have to do in this space. They fund our work through sponsorships or partnership dollars, and we execute with them against the goals they're trying to achieve. We do some bespoke events so they can attract talent and engage them in our events.

You also do research.

We're doing a project right now on the retention-of-women-in-tech problem. We interviewed 25 tech leaders to understand, once we have the women-identified people, how do we keep them and engage them. (4) And that will be a novel piece of research we think is part of solving the problem. And the last piece is, we've been building our app, #movethedial Connect. One of our insights has been the need to build a mentoring program driven by smart data, so companies can get metrics on how their investment is moving the dial. But you need—my brother raised $100 million. (5) I don't have that kind of funding. So our plan is to bring it to the community when we're in a position to do that at scale.

Are you a non-profit or a for-profit organization?

We are a social enterprise.

What does that mean?

We are not a registered non-profit. The way that all started was as a program through MaRS. Jeff Fettes, an entrepreneur in Winnipeg, saw me speak. And he said, "You have so much passion for this, I believe in you." And I said, "I can't do this full time. I have a daughter. I'm a single mother." Like, that's really scary. He said, "Figure out how you could hire some people and how you can fund this work enough that you can do things." And that's what I did. I found a way to build an organization that has enabled me to bring in enough revenue to hire 20 people, and build this into something that can be sustainable and relevant for the long term. My vision is that the organization will make, ultimately, enough revenues that I can start a non-profit arm that will focus on youth.

Does #movethedial try to address male toxicity in the workplace?

No. Our specific work is focused on bringing more women into the industry, engaging and growing them in those roles. That piece of work around toxicity and sexual harassment is just not a specific focus of what our own work is.

But toxicity in male-dominated workplaces is part of the reason women don't go into those workplaces, isn't that true?

Yes.

Shouldn't that be an element of what you're doing?

If the question is, does #movethedial have a program that specifically addresses toxic things, like sexual harassment specifically? I don't believe that I personally have the expertise to deliver those programs. We work with PhDs in inclusive design to do all sorts of programming around understanding unconscious bias. We do deep dives on the research. How are individuals in the company feeling about the culture? Is it toxic? Is it healthy? Is it not? What's the sense of belonging that people feel, and what are the gaps in terms of numbers, but also sentiment?

Do you perceive any differences in Canada versus, say, Silicon Valley?

It's hard to generalize, but some of the women I've met who are leaders in the Valley seem to be more cynical than some of the women I've met here. We started to do some work in Japan, and in Israel and London, and all of those markets are different. The women I met in the U.K. are extremely optimistic and really have rallied together as a community.

Sarah Lahav, the CEO of SysAid Technologies, wrote an article recently that basically said, if you want women to feel more welcome in tech, stop using the term "women in tech." She feels the phrase is inherently marginalizing. What's your reaction to that idea?

It's interesting. I talk a lot about "women-identified" because I think gender fluidity is in a place where, if you do this work, you can't just talk about women who were born women or who look like women to the outside world. But I don't share her perspective that it's marginalizing to say we need to work together to advance people who identify as women in the industry. That is a focus of my work. I've certainly come across

3. There are plenty of examples of male-dominated AI teams producing algorithms that were biased against women. "Who's going to be taking care of our elderly two generations from now? It's going to be AI," Melinda Gates said in 2016. "But do you want all males in their early 20s and 30s creating the AI that's going to take care of you when you're older?"

5. Kovitz's brother, Michael Katchen (yes, the one on our cover), is the founder and CEO of WealthSimple

4.

Paying them fairly might be a start: Women in Canadian tech jobs (with a bacherlor's degree or higher) are paid on average $19,750 less than their male counterparts, according to the Brookfield Institute for Innovation and Entrepreneurship at Ryerson University.

MEN

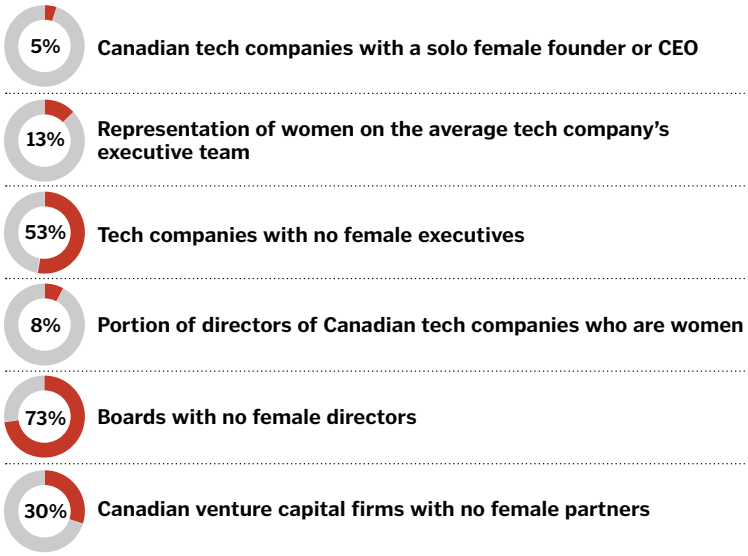
$95,100

WOMEN

$75,000

PHOTOGRAPHS (SANDBERG) AP/JOSE LUIS MAGANA; (AHRENDTS) AP/ERIC RISBERG; (WOJCICKI) NICHOLAS KAMM/ GETTY; (ROMETTY) SHANNON STAPLETON/ REUTERS; (CATZ) ALBIN LOHR/CP

IN 2017, #MOVETHEDIAL, PWC AND MARS PUT OUT A LANDMARK STUDY, BASED ON 933 TECH COMPANIES, TO STUDY THE NUMBER OF WOMEN IN TECH, PROVIDING A BASELINE AGAINST WHICH FUTURE CHANGES CAN BE MEASURED



people who share her opinion—who sort of say, "We're just tech leaders." But I do think it's really important to focus on the fact that there is a massive gap.

What's your approach to engaging with companies? Do you wait for them to come to you, or do you reach out to them?

We've been lucky that it's been mostly inbound, because it means, to me, that the community's excited about the work and wants to engage. I get inbound all the time, through all my social channels and my email. I spoke at the Elevate Tech Festival recently, and I got tons of emails afterwards: "We'd love to explore working with you, loved your message, how can we get involved?" And then we bring them in. They meet with our team and try to get engaged that way.

Do you feel like you're moving the dial? What evidence do you have that you're having an effect?

We've seen a shift in consciousness with a lot of the partners we're working with, where this has moved from "something we think we need to do" to a strategic priority for the business. We're seeing the women-identified people in tech feeling more engaged, feeling more valued. (6) We're all about partnership. We fund our work through engaging with partners who are serious and want to solve this problem. They're seeing the impact of that. They're all renewing their partnerships. That, to us, demonstrates that they're getting value out of the work we're doing. TD renewed as a title sponsor. They're also a founding partner, along with CIBC, WealthSimple, League and BMO.

They're almost all financial companies.

We work with lots of companies, and many technology companies. Shopify, for example, came on for this year, along with a whole bunch of other tech companies. The funding is different in startups than it is in large organizations. To their credit, in order to fund this work, the companies that have had the ability to fund it have stepped up. And we're grateful for that. But we have the chief diversity officer for Microsoft opening our summit in November, and the global head of diversity for Airbnb is speaking. We have Salesforce really engaged (7) and lots of these larger technology companies that are engaging.

Last year, you wanted 10,000 women in tech to tell their stories in video. What was the response?

Yeah, that was one of those bold, ambitious goals, and it didn't happen in one year. But I'm working really hard at it, and I'm optimistic it will happen through how we're going to be scaling it with the technology. We've told 160 stories at events, but we've also told many more stories through our blog and through how people engage in our social media. And I'm still at it, and I'm confident we'll achieve our goal.

If a young woman told you she wanted a career in tech, what's one piece of advice you would give her?

I would say, go all in. Stay in. And build your network early and always. The opportunities are about having humans that believe in you, will teach you, will champion you, and building your own network is going to be absolutely critical to your success in this industry. So, start doing that, and don't stop.

6. #movethedial says its campaign to generate nominations of female founders to C100, a San Francisco-based association of Canadian global tech leaders, boosted the number of those nominations by 400%.

7. In 2015, Salesforce chief personnel officer Cindy Robbins alerted CEO Mark Benioff that female employees were systemically paid less than male ones. He dedicated US$6 million to correct that discrepancy, and salary gaps by gender and ethnicity across the company.

Trevor Cole is the award-winning author of five books, including The Whisky King, *a non-fiction account of Canada's most infamous mobster bootlegger.*

Greenhouse – a pioneer in Canadian plant-based beverages

Greenhouse founders (pictured left to right) Emma Knight, Anthony Green and Hana James in front of their original retail location in Toronto.

A great product accessible to busy customers is the secret to Greenhouse's success

THE FOUNDERS OF TORONTO-BASED GREENHOUSE took a risk five years ago launching their cold-pressed juice company in the middle of winter.

Not only is it a time of year when people prefer hot drinks, but the cold-pressed juice phenomenon — while popular in places like New York and Los Angeles — hadn't yet hit in Canada.

Still, on an icy, cold January day in 2014, Greenhouse opened its doors in a quaint cottage-style store in Toronto's upscale Rosedale neighbourhood, offering organic, cold-pressed juice in clear glass bottles.

They sold out in the first hour.

"We thought it would be a soft launch because it was really cold," says Emma Knight, Greenhouse's head of marketing and co-founder of the company alongside Anthony Green and Hana James.

Instead, Torontonians were thirsty for the healthy beverage that's made from a hydraulic press used to extract juice from produce, which helps to preserve more of its vitamins and nutrients. Greenhouse's juices are certified organic and don't include any artificial colours, preservatives or added sugars.

"There were a lot of people who had discovered products like this elsewhere and were looking for a Toronto cold-pressed juice company," says Ms. Knight, while noting the drinks come in more environmentally friendly glass bottles.

Today, Greenhouse has 14 corporate-owned retail stores as well as a direct-to-consumer delivery and subscription service.

Including its cold-pressed juices, the company currently sells six different beverage categories in its own stores and at retail partners across Canada, including kombucha, probiotic hydrators, plant milks, shakes and booster shots.

A big part of Greenhouse's growth has been its accessibility to busy consumers in hubs such as Toronto's business district, where people only have a few minutes to grab a drink or snack.

"We're not in places where people are lingering for very long," says Ms. James. "Many have limited time and are deterred by line-ups."

Greenhouse uses *Interac* Flash to speed up its transactions and help to get consumers on their way. The technology enables customers to make payments in seconds, which helps prevent long line-ups.

Interac research shows three-quarters of consumers have stepped away from an in-store purchase because of a long check-out line.

"For us as a business, *Interac* Flash means that we don't waste time making change," Ms. James says.

A more seamless customer experience has helped Greenhouse increase its sales which, in turn, has enabled it to invest more in research and innovation and to launch new products.

For example, after tracking beverage trends across North America, Greenhouse introduced kombucha in January 2016, and now offers six flavours of the specialty fermented tea drink.

This fall, it plans to introduce a new high-protein, high-fibre, gluten-free oat milk beverage using organic Canadian oats. The product was developed in response to the health issues surrounding non-organic oats treated with glyphosate, an herbicide linked to cancer.

Competition in the cold-pressed juice market has intensified since the company started. New firms have entered the market offering non-organic products at a lower price.

Ms. Knight says they could have given in to the trend but decided to press on with their way of doing business. This includes sticking with higher-quality products and packaging, even though they're more expensive.

"It makes for a better product, and that was the commitment we made," Ms. Knight says.

The strategy appears to be working as Greenhouse continues to grow its operations. After recently launching in Sobeys, Greenhouse plans to expand its sales to other major grocery chains across the country in the coming months. In addition, Greenhouse is bringing its e-commerce and food service business to the West Coast.

"Having amazing partners makes a huge difference," Ms. James says of companies like Interac. "We're all driving towards the same mission."

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not so simple

Michael Katchen attracted $5 billion to his financial adviser with millennial-friendly marketing. _Next? An audacious plan to take on the big banks

by Joe Castaldo

photographs by Markian Lozowchuk

CEO Michael Katchen at Le Swan, near Wealthsimple's Toronto headquarters

This May, Jacob Weinstein had an idea.

The Toronto Raptors had just made it to the NBA finals, and most of Canada was enthralled. Weinstein, the art director at Wealthsimple Inc., wondered if there was a way for the company to harness that enthusiasm. The idea struck him at home around 10 in the evening, and he worked long into the night assembling footage for a rough cut of a television ad. He showed it to his colleagues that morning. Everything happened quickly from there. The creative department found an animator in Moscow and a video editor in Los Angeles. The team spent hours scrutinizing more than 100 different edits, tweaking the copy, the music, and the timing for what was a deceptively simple 30-second ad.

The spot shipped six days after Weinstein conceived of it and first aired during game four of the finals. A basketball sails toward the hoop, bouncing on the rim four agonizing times before falling through, a recreation of Kawhi Leonard's now-famous corner shot. Then the punchline appears: "Nice trade, Toronto." The tag is a reference to both the controversial trade the Raptors made to secure Leonard, and to Wealthsimple's zero-commission trading platform. The spot cost $37,000 to make (more than half was spent on editing; "we burned out our editor," says executive creative director Mike Giepert), and the company says the ad is its fastest-produced, most cost-effective television spot, reaching about 4.5 million viewers that night.

That ad, and how it came about, says a lot about how Wealthsimple became the largest digital financial adviser in Canada and where it's headed. Michael Katchen, the company's 31-year-old CEO, co-founded Wealthsimple in 2014 as a so-called robo-adviser. The company uses algorithms to assemble and rebalance low-cost, ETF-based investment portfolios, largely for millennials ignored by the incumbents. These consumers don't have much in the way of assets and may experience pangs of anxiety, confusion or boredom when they think about investing. Katchen and his team designed Wealthsimple's website and app to be quick and painless to use, free of any financial jargon, excessive fees or service glitches that might detract from the experience. Clever marketing—uncommon in the staid world of financial services—was crucial to attracting more than 175,000 clients and $5 billion in assets under management. Wealthsimple does all of its own branding and advertising in-house. Because it employs a creative team in New York, it can move swiftly when an opportunity arises, such as the NBA finals.

Speed is just one of Wealthsimple's strengths, but the ad itself showcases how the company is now moving beyond its investing roots. First, Wealthsimple introduced savings accounts in 2018, followed by the trading platform earlier this year. In September, Wealthsimple acquired Canadian firm SimpleTax, which makes tax preparation software. Katchen's ambitions extend far beyond a digital investment service. "Our explicit goal is to replace a bank as our clients' primary financial relationship," he says. For that to happen, Wealthsimple has to become a much more diversified financial services provider.

Katchen doesn't have much choice. Wealthsimple is still in the red, and robo-advisers around the world are struggling to turn a profit. Spending heavily on marketing to attract millennials with few assets, then charging a small management fee, has proven a sure-fire way to lose money. Katchen does have a sizable backer in this quest, though. Power Financial Corp. has invested $238 million and, through its subsidiaries, holds a voting interest of 88.9%. On top of that, Power teamed up with the digital investment arm of Germany's Allianz Group to sink another $100 million into Wealthsimple in May.

Katchen will need all the support he can get from patient investors. Wealthsimple's media coverage (yes, this article included) has outweighed its actual impact. It's a miniscule player in the Canadian asset management industry, where the total value of all investment funds tops $1.8 trillion. It is even tinier on a global scale. In the U.S., Wealthsimple has just US$89 million in assets under management, according to research firm Backend Benchmarking, making it one of the smallest robo-advisers tracked by the firm.

Katchen is betting that what has worked for his company until now—using technology to create a better overall experience than its rivals—will continue to work as it adds new products. But its original investing platform was geared toward the overlooked millennial market. As the company diversifies, Katchen will be competing against financial incumbents on multiple fronts, fighting to keep existing customers while wooing others from the competition. If there's one thing giant banks are concerned about, it's maintaining a deep relationship with their customers. That's the bond that Katchen wants to break.

To visit the head office of Wealthsimple, which bills itself as the "most human" financial company, you have to climb three flights of stairs at a renovated warehouse in Toronto's west end. When I visited recently, the door opened to a reception area that was curiously unstaffed by a human being. I loitered for an uncomfortably long time, waiting for the receptionist to return. Just around the corner, a bunch of young people were toiling away on laptops, cocooned in headphones. Eventually, I noticed the tablet bolted to the reception desk. I punched in

The 31-year-old now owns a home, something he once viewed as an unnecessary expense

my name and the system notified my host, while a printer spat out a nametag.

Sometimes having a human around isn't such a bad thing. Wealthsimple, despite its focus on technology, recognizes that, employing a team of financial advisors and customer service reps to answer questions and provide personalized investing advice. "The team has grown quite considerably," Katchen says. He's feeling under the weather today, nursing a tea in a meeting room. Casually dressed and unassuming, he's still young for a CEO, easily blending in with his millennial co-workers. He's not quite the sprightly newcomer he was five years ago, though. The hair is a little thinner, the beard fuller. He's a married dad with a mortgage these days.

His own experience getting a mortgage left him somewhat dumbfounded. "They hand you a stack of paperwork where the first question is, 'What is your name?'" he says. "And then they offer you a rate, which is the sh----est—excuse my language—rate that they can offer you." Katchen paused, his eyes wide. "Is that a way to treat, like, your lifetime customer?" The ordeal was everything that Wealthsimple stands against: an inefficient, impersonal paper-pushing exchange.

That Katchen was in a bank saddling himself to a mortgage at all is surprising, given he once viewed home ownership as an unnecessary expense. (That was before he got married to his wife, Nikki, a doctor, and had a kid.) Katchen has long held a nerdy fascination with personal finance, and he comes from a high-achieving family. His dad is a stockbroker turned tax lawyer, and his mom is a psychologist turned executive coach. One of his sisters, Jodi Kovitz, now runs #movethedial, an organization dedicated to advancing women in tech, while the other, Amy Baryshnik, paid her way through a Harvard MBA, with the help of a few scholarships, and later became a partner at an alternative investment manager.

Katchen's interest in investing was partly sparked by a charity stock-picking contest organized by Kovitz. Under his dad's tutelage, Katchen bet everything on a single stock and handily won. He read books by index-investing legend and Vanguard founder John Bogle in high school (though he also dabbled in piano and guitar) and went on to study business at the Ivey Business School at Western University.

After graduation, he did a stint at management consultancy McKinsey & Co., moved to Silicon Valley, and joined a startup for scanning and sharing family photos called 1000memories (operated by his Wealthsimple co-founders). The firm sold to Ancestry.com in 2012, and Katchen later returned to Toronto. His colleagues wondered what to do with their cash, so Katchen built a basic investing spreadsheet for them. That was still too much work for his friends, who asked why Katchen couldn't just handle their money. The situation got him thinking about automating the whole process.

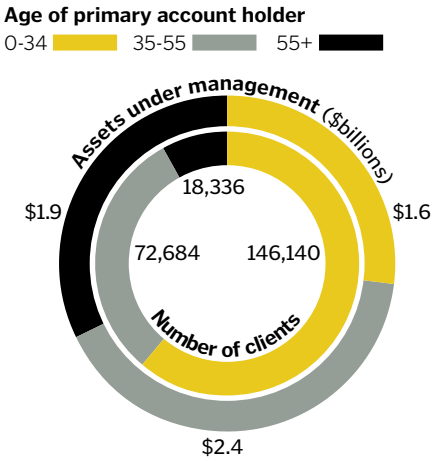
It was not a new concept. In the U.S., the first robo-advisers launched just after the financial crisis. But Katchen and his co-founders, friends Rudy Adler and Brett Huneycutt, did a few key things very well. Signing up for an account is fast and simple, and the company's written materials are free of jargon. Katchen proved adept at snaring high-profile investors too, such as Som Seif, who founded Claymore Investments, and Joe Canavan, the former CEO of Assante Wealth Management.

His biggest whale came through an introduction by Seif—Paul Desmarais III, a senior vice-president of Power Financial Corp. A member of one of Montreal's wealthiest families, Desmarais estimates he spoke with Katchen several times a week for three or four months about the vision for Wealthsimple and how they could work together. Desmarais was impressed by Katchen's leadership qualities: humble, intelligent and amenable to suggestions. "Often when you meet founders, they have very entrenched views on the path forward," he says. "Michael was open-minded while being very focused on his mission." Plus, he and his equally talented co-founders had already operated a startup.

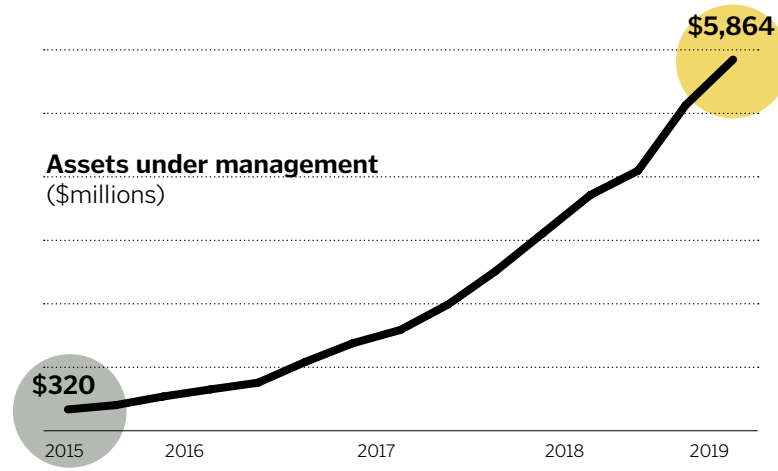
This experienced team knew from the beginning that branding would be essential to gain any customers, particularly for a financial company nobody had ever heard of. Adler, who had previously worked at the advertising agency Wieden+Kennedy, spearheaded marketing and product, and along with chief operating officer Huneycutt, soon set up in New York. Both are American, but there's also a business reason for basing the creative team in Brooklyn. "Talent," Katchen says. "In Canada, we have some awesome talent, but we don't have the depth that we need in all the roles."

Wealthsimple hired creative director Giepert, another Wieden+Kennedy alum. The goal of the company's brand advertising, Giepert says, is to spur "open and honest conversations about money." The sentiment is perhaps best exemplified by a

Not just for millennials



The rapid rise of Canadian robo-advisers



series of videos originally commissioned by Wealthsimple from Oscar-winning filmmaker Errol Morris in 2017. Called "Investing for Humans," the shorts feature individuals having unscripted conversations about money, set against colourful backdrops. Anubha, a young professional, recognizes how "bourgie" it is to say the size of her portfolio affords her special privileges. Haley, who inherited money from family members at a young age, seems burdened by the responsibility, pausing to wipe away tears.

The approach carries over into Wealthsimple's "Money Diaries," an ongoing series where famous and not-so-famous people discuss their lives and bank accounts. (Katchen sat for one earlier this year. Desmarais has not. "I think my life is too boring," deadpans the man born into one of the wealthiest families in Canada.)

There is no more honest truth about money than admitting we all have hang-ups about it—and make mistakes with it. Bank marketing traditionally leans heavily on happy young couples buying houses or happy old couples relaxing at the cottage. "You gain trust when you don't hide the details or present this perfectly varnished vision of life," Giepert says. Recognizing that money brings guilt, anxiety, fear, hubris, jealousy and countless other emotions is, apparently, a good way to build trust with Canadians.

Wealthsimple's marketing does not come cheap. The majority of the money raised by the company goes toward two things, Katchen says: people and advertising. Combined with low fees and the small asset sizes that robo-advisers typically manage, the business model is strained. Researchers at Morningstar estimate robo-advisers in the U.S. need between US$16 billion and $40 billion in assets to break even. Wealthsimple charges a higher fee than its U.S. counterparts (for accounts with less than $100,000 in assets, the levy is 0.5%) but it's still not profitable.

Incumbents have moved into the space, though without much success in Canada, says Michael King, a professor at the Peter B. Gustavson School of Business at the University of Victoria. Bank of Montreal introduced a robo-adviser in 2016, and Royal Bank of Canada followed suit last year. Others have opted to partner; National Bank invested $6 million for a minority stake in Nest Wealth in 2017 while licensing the startup's technology for its own advisors.

After five years in business, Wealthsimple is building an investing track record too. The company says its balanced and growth funds have returned 24.5% and 36.3%, respectively, since inception. That's impressive, though not as good as the 50% return from the Canadian Growth Balanced mutual fund at Power-owned Mackenzie Investments. With roughly a dozen robo-advisers in Canada, the space has become crowded, as so many firms fight for the same low-margin customers. Whenever the next recession arrives, not every robo-adviser will make it through. "I'm skeptical about a number of smaller players. They're going to be acquired by incumbents or go bankrupt," King says. "What Wealthsimple has realized is that they have to be at the top in order to survive the coming shakeout."

Scaling is still Wealthsimple's focus, not profitability. "If we decided we really wanted to ramp down our marketing spend and really focus on profits, that would not be a hard thing to achieve." Pressed on when that might happen, Katchen brings up Amazon, a company notorious for ignoring profits to pursue growth. "I think we have a once-in-a-generation opportunity to reshape this industry," he says.

One question underlying Wealthsimple's future is how long Power Financial is willing to back a money-losing company. Desmarais, son of Power Corp. chairman and co-CEO Paul Desmarais Jr., bears a good deal of responsibility for ensuring the continued longevity of the family empire, which includes insurance and traditional asset managers IGM Financial and Mackenzie. These are businesses that are vulnerable to disruption by technology. So Desmarais is investing in fintech startups to ensure that doesn't happen.

"It's kind of a career-betting move," says Andrew D'Souza, an advisor and investor in Wealthsimple, who is CEO and co-founder of alternative finance company Clearbanc. "He's really backing Mike and the team to deliver on this, and putting a lot of his personal legacy behind the success."

For Desmarais, Wealthsimple is a generational play, a way to capture new younger customers that his other companies cannot reach and to keep them over time. The average client of Mackenzie, for example, is older, wealthier and has more complex financial planning needs.

Millennials aren't likely to be considering life insurance, either. But they will, some day. "Wealthsimple customers tend to be very loyal to the platform because the service provided is highly differentiated," Desmarais says, "and that leads to a very sticky long-term relationship that can grow over time." That also makes Wealthsimple a valuable platform for cross-selling other financial products and services within the Power fintech ecosystem. Desmarais also cites IGM and insurance firm Canada Life as two possibilities, provided whatever product is being sold fits with Wealthsimple.

Meanwhile, Katchen's firm is broadening its offerings. The company has a division catering to financial advisors, automating back-office functions to rid them of paperwork and providing access to portfolios for their clients. Wealthsimple added two tiers to its retail investment advisory service, called Black and Generation, for clients with more than $100,000 and $500,000, in assets respectively. Those clients pay slightly lower fees and receive access to airport lounges around the world through a Priority Pass membership.

Targeting well-heeled Canadians is a departure from where the company began, but there is demand in that demographic. About 38% of robo-advice clients in Canada are over the age of 35 and account for 73% of the assets under management, according to research firm Investor Economics. "We get bogged down sometimes into categorizing people into big buckets or around generational lines," says Brett McDonald, a senior consultant with the firm. "The preferences within those buckets are not homogenous by any means."

Savings accounts and Wealthsimple's trading platform mark the company's first forays beyond investing portfolios. Katchen says the uptake has been encouraging, but declines to share any specifics. Here, too, the strategy is to scale. Wealthsimple isn't likely making much money by offering a free trading platform, but it can attract a different kind of customer who might use its other products.

When Katchen talks about the future of Wealthsimple, he breaks it into three broad areas. He wants to expand the company's investment and savings offerings, of course; one area he's been thinking about is a cash-flow management tool to help clients with their spending. Second, he talks about "responsible credit," such as mortgages. "One of the biggest reasons for churn is not client unhappiness," Katchen says. "It's people buying houses and needing to pull out their investments to make a down payment." The opportunity, he says, is to compile data on a client's spending and saving behaviour, and automatically offer a personalized rate with the click of a button. Finally, Katchen wants to add life insurance. "How we'll execute any of these products," he says, "we don't know yet."

All of that would make Wealthsimple a more diversified financial services provider. But enough to replace a bank? "The idea that any of the robos or even the bigger ETF companies can truly be a replacement in a significant manner to a bank, that's going to take a long time in Canada, given the presence and the distribution the banks have," says James Loewen, a partner at KPMG Canada.

One need only look at the asset management business itself to see how hard it is to rival the deeply entrenched banking oligopoly in Canada. Independent firms are undergoing a wave of consolidation. Last year, the Bank of Nova Scotia snapped up Jarislowsky Fraser Ltd., and Toronto-Dominion Bank bought Greystone Capital Management Inc. But even as they consolidate, banks face new, unconventional competition. Technology giants have amassed reams of information about consumers, the kind of detailed profiles that were once the realm of financial institutions. Some of those players are making forays into finance. Facebook allows for money transfers. Apple has a payment and digital wallet service. In China, WeChat allows people to send money, book flights or hail a ride from their phones.

Wealthsimple is really one more entity chipping away at the lock the banks have on Canadians. Katchen is realistic about his place in the industry. "It would be naive of us to say that we are disrupting the banks today. We are tiny," he says. Getting to $5 billion in assets is no small achievement, but even the wealth management division of National Bank, the smallest of the Big Six, oversees $104 billion.

Katchen has sought to avoid the label of "disruptor," positioning Wealthsimple as a provider of technology to spur change in the financial services industry. It's hard to square that benign goal with the notion of replacing the banks for its clients. So which is it—friend or foe? After circling around an explanation, Katchen puts his head between his hands to gather his thoughts. "We don't really think about ourselves as trying to steal clients from banks," he says eventually. "If a bank wanted to partner with us tomorrow because they love the way Wealthsimple does business with clients, we would be like, 'Let's do it.'"

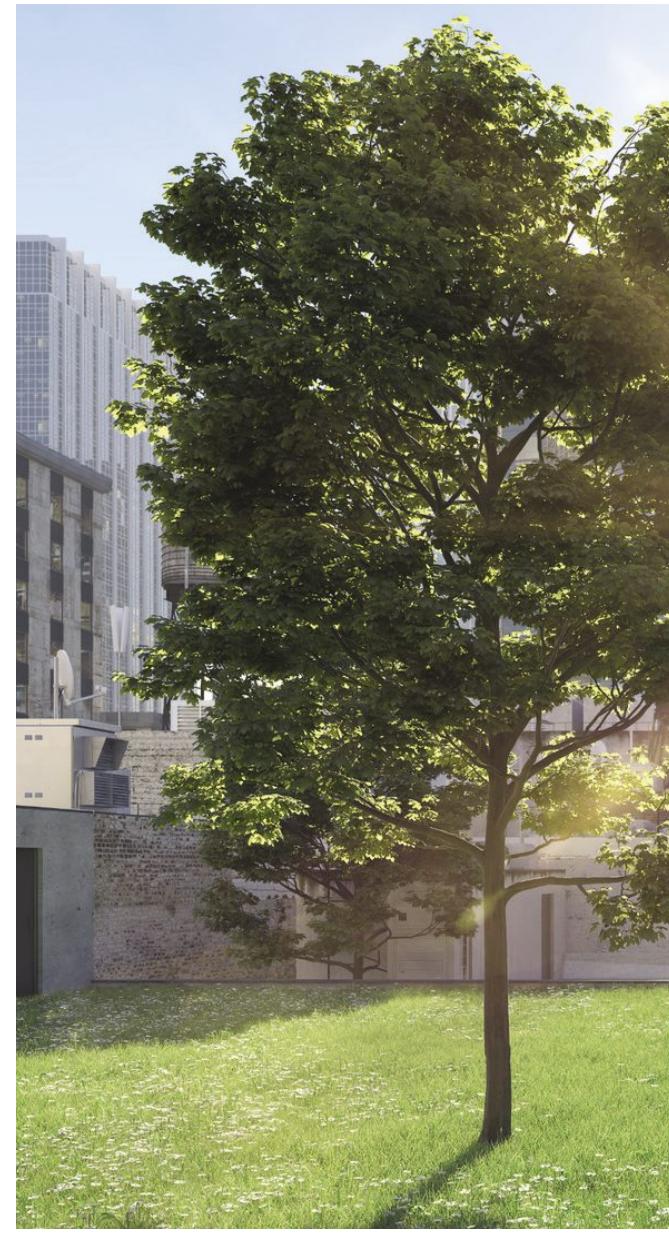
As the company grows, it may have to work with other financial players. It doesn't have the massive balance sheet of a bank to offer mortgages, so it may need a partner of some kind. The reality is boasting and trash-talking the incumbents, which is generally not Katchen's affable style, may also not be good for business.

His firm has to interact with its competitors already. I told Katchen about my experience with Wealthsimple, which involved transferring funds from another institution. The firm required someone from Wealthsimple to sign a form before releasing the funds, but it would only accept the original sheet of paper—not a digital version. When I explained the situation to one of his customer service reps over the phone, she was mystified. "Paper?" she asked. It took two days to sort out.

Katchen nods along. "We depend on this industry, and sometimes it breaks the experience," he says. Wealthsimple has even developed software to automatically send faxes to certain financial institutions, which still use them when processing account transfers. Sometimes the faxes are ignored, so the software follows up. Katchen shakes his head. "You know, I never thought we'd be building software for faxing," he says. Technology can make things easier, but everyone, even Wealthsimple, has to play by the banks' rules.

Climbing to the top

How SLC Management has become a top 100 asset manager in five years



When Sun Life decided in 2013 to start a third-party asset management company – SLC Management – they were confident about having a strong base in Canada, but eager to grow their presence internationally. In just five years, SLC Management has transformed into a bonafide global asset manager with a significant presence in the U.S., Asia and Europe.

The numbers speak for themselves: SLC Management now has more than 1,000 institutional clients and over $219-billion[1] in assets under management, making it a top 100-asset management company in the world.

$219B

Growing asset management business

1000+

Institutional clients

"It's pretty amazing to look back and see how far we've come," says Eugene Lundrigan, president of Sun Life Capital Management (Canada) Inc., the SLC Management business in Canada, and was instrumental in helping build the business from its inception.

"We recognized that we could launch our asset management business organically in Canada because we've been managing assets successfully for Sun Life's general account for decades. Our mantra has always been 'Let's do for clients what we've been doing for ourselves.'"

The challenge, says Lundrigan, was how to build on their established expertise in traditional and alternative asset classes, such as private fixed income, real estate and liability-driven investing, to make a breakthrough in the very competitive global market. The solution was to make strategic acquisitions that were the right "fit" with its existing business, giving the company a significant presence in the U.S. through its U.S. affiliates, where 75 per cent of their clients are now based.

The first three acquisitions – U.S.-based Ryan Labs Asset Management, Prime Advisors, Inc. and North American-based Bentall Kennedy Limited Partnership – were made in 2015. This year, globally-based GreenOak Real Estate was acquired and merged with Bentall Kennedy to create BentallGreenOak.

Ryan Labs and Prime Advisors give SLC Management an edge in the U.S. with public fixed income strategies, while BentallGreenOak is fuelling their growth with mortgages and real estate.

In June, the acquisitions and the Canadian entity Sun Life Capital Management (Canada) Inc. came together under the SLC Management brand, creating a versatile and unified group of asset management companies while retaining each shop's unique investment strengths.

"We've streamlined our organizational structure to enable a high level of collaboration and to bring our complete solution set to clients. But, we have ensured that our investment teams retain autonomy in their areas of investment expertise," Lundrigan says.

"We know that institutional investors want to deal with fewer managers that have a broader range of capabilities, and that's exactly the experience that the SLC Management brand offers."

SLC Management

Sun Life has co-invested billions of dollars alongside SLC Management's clients with the same strategies and asset classes. "In a world where people want you to put your money where your mouth is, I think that co-investment is a tremendous differentiator from a lot of our market competitors," Lundrigan says.

Looking forward, Lundrigan says they're in the sweet spot of where the asset management industry is headed today, noting that recent trends show over $2-trillion in investments have moved into alternative investment funds like their own. There is a large amount of de-risking going on among institutional investors like corporate pension plans – which make up a large portion of SLC Management's clients. That also means that the fixed income allocation for those plans is often rising from around 30 per cent to 40 per cent, meaning a lot of money is in motion from SLC Management's clients.

As uncertainty looms in the global markets, SLC Management's asset classes are competitive in comparison to typical public bonds and equities in aiming to reduce risk and provide steady returns, Lundrigan says.

"As clients enter an environment where there's probably never been more uncertainty in the market, I think working with trusted partners who've been successful through multiple cycles is a real advantage for us and for them," Lundrigan says.

"We're an asset manager who knows what it means to be an investor. So just like our clients, SLC Management is driven to meet the long-term financial obligations of those who have entrusted us with that privilege."

For more information on SLC Management, visit www.slcmanagement.com.

Eugene Lundrigan
President of Sun Life Capital Management (Canada) Inc.

[1] *The assets under management (AUM) represent the combined AUM of Sun Life Capital Management (Canada) Inc., Sun Life Capital Management (U.S) LLC, Ryan Labs Asset Management, Inc., Prime Advisors, Inc., the Sun Life General Account and BentallGreenOak (pro forma for BentallGreenOak). AUM as of June 30, 2019*

earning your keep

John Chen is 3,593% certain

Canada's 100 biggest companies are relying more and more on stock to pay their CEOs. Are they getting their money's worth—and is it fair? **/By David Milstead**

It has been a remarkable run for Shopify Inc. and its founder and CEO, Tobias Lütke.

Even after a large pullback that began in August, the share price of the Ottawa-based maker of e-commerce software has climbed more than 17-fold since it went public in 2015. At the peak that month, investors valued Shopify at more than $60 billion. Lütke is now a multibillionaire.

As the value of his Shopify stake crossed the $2-billion mark in February of this year, the company's board finalized the CEO's annual pay package. As part of his compensation, Lütke received stock options worth more than $14 million, The Globe and Mail estimates. It was the third year in a row Shopify gave Lütke stock awards, beyond his already-valuable holdings, to make sure he was "properly incentivized," company documents show. (The company did not respond to requests for comment for this story.)

Over the past two decades, many companies have jacked up their use of stock awards in CEO pay packages to try to align their executives' interests with those of shareholders. If everyday investors get wealthier from our rising stock, the thinking goes, so should the folks who run our company.

In practice, however, the use of stock options and other share awards has led to an explosion in executive pay—so much so that many CEOs are paid hundreds of times what an average worker makes. Another criticism of stock-based pay is that it has made multimillionaires of many professional managers who had little to do with starting or building a company.

Shopify's approach to Lütke—widely lauded for his vision in creating a Canadian global tech champion—shows that the desire of companies to pay CEOs robustly isn't limited to the hired help. CEOs lauded as entrepreneurs, founders, job creators—however you label them—often avoid the opprobrium directed at other leaders. Investors forgive them their riches. Yet every dollar a company's share price increases can also put millions more in the CEO's pocket.

"It's hard to see that if you have $2 billion, that another $10 million makes any difference," says Steven Clifford, a former CEO and director who turned against his peers when he published *The CEO Pay Machine* in 2017. "Owning $2 billion of stock should be sufficient motivation, and it seems

PHOTOGRAPH MARK BLINCH/REUTERS

Top 10 BEST-PAID CEOS, 2018

			TOTAL REPORTED COMPENSATION
1	**John Chen**	BlackBerry Ltd.	**$143,341,533**
2	**Donald Walker**	Magna International Inc.	**$26,021,694**
3	**Daniel Schwartz**	Restaurant Brands International Inc.	**$24,349,238**
4	**Joseph Papa**	Bausch Health Companies Inc.	**$19,109,604**
5	**James Smith**	Thomson Reuters Corp.	**$18,777,815**
6	**Ronald Mittelstaedt**	Waste Connections Inc.	**$17,750,032**
7	**Charles Magro**	Nutrien Ltd.	**$16,709,802**
8	**John Thornton**	Barrick Gold Corp.	**$16,671,092**
9	**Doug Suttles**	Encana Corp.	**$15,532,764**
10	**Bharat Masrani**	Toronto-Dominion Bank	**$15,316,065**

ridiculous to say another $10 million will make you more motivated."

Lütke's pay, combined with his accumulated wealth, stands out in our annual ranking of CEO compensation at Canada's 100 largest public companies. But other founder-CEOs collected millions more in shares in 2018.

On average, the CEOs received 62% of their 2018 pay in grants of stock or stock options, according to an analysis by Global Governance Advisors. That adds fuel to the debate about the annual "equity incentive" that makes up so much of today's executive pay. Does it truly reward performance or just provide fat gains disconnected from what ordinary shareholders experience?

The median total pay of the CEOs was almost $6.8 million, with the median increase from 2017 coming in at just under 7%. Total compensation includes salary, bonus, stock option and other share awards, additional disclosed pay and the annual increase in pension value. The median cash compensation—just salary and bonus—was slightly over $2.8 million, with the median pay boost just 3%.

The median figure is important because a few large values can skew averages—and that's what happened in 2018. BlackBerry Ltd. gave CEO John Chen a pay package valued at $143.3 million, of which $139 million was a massive stock award designed to pay him for the next five years of his service. BlackBerry says it does not intend to give Chen any more stock awards from 2019 to 2022.

"I've been working on corporate governance since 2003, and over that time compensation has always been one of the top one or two issues for shareholders, and it never goes away," says Jason Milne, a principal at the Toronto-based consulting firm ESG Global Advisors Inc. "And I think for good reason, because we've seen pay continue to go up, and a lot of that has been driven by the stock awards."

But the form of stock-based compensation has evolved. Over the past five to eight years, Milne says, companies have moved away from using stock options as the largest component of pay packages.

Years ago, when executives were still paid largely through salaries and cash bonuses, options were seen as a way to align their interests with shareholders and give CEOs "skin in the game." An option gives the holder the right to buy a share of stock at a set price, for a set period of time. Many executive stock options had terms ranging from five to 10 years.

After the tech bubble of the 1990s, however, criticism of stock options increased. Executives whose companies' stock soared along with the broader tech market exercised their options, then quickly sold the shares and made millions. Investors in their companies would have done as well in an index fund. But after the bubble burst and stock prices plunged, executives who had cashed in before the collapse still had their millions.

Increasingly, Milne says, companies are relying on stock awards tied to outperformance—primarily by awarding shares that "vest," or become fully sellable by executives, only when the company meets or exceeds targets. That could be measured by its shares outperforming its peers or by other metrics, like earnings growth.

"In general, having a stock [award] rather than an option does tend to align the interests of that individual with the other shareholders," Milne says. "But what continues to worry a lot of shareholders is that very large proportion of stock that we continue to see issued."

The challenge is to reward CEOs who build lasting value, rather than those who engineer a quick bonanza. "A company should never give stock options, because you're not aligned," says Steven Clifford, the former CEO. "If you have a stock option, you have a one-way bet, whereas the shareholder always has a two-way bet. So, the CEO would be incented to take much more risk than the shareholder might want."

"It is not just the holding of the stock, it's how you get the stock," Clifford adds. "If you get the stock bonus based on completing a merger, well, you get the merger completed, but you may overpay."

The trick of crafting a package that properly pays a CEO gets more complex when the top executive is also a founder with large share ownership, says Ken Hugessen, a veteran Canadian compensation consultant. Companies may not want to give a founder-CEO a large block of new stock. But if they don't, they end up paying their CEO a fraction of what a professional manager would get. Or, they could make the pay cash-only, which removes any performance incentive.

"It's difficult to say to someone, 'Well, we think you ought to accept pay that's half or one-third of what others do, no matter what the reason is," Hugessen says.

Several Canadian companies have taken that approach, however. Mark Leonard founded Constellation Software, a relentless acquirer of small tech companies, in 1995. His 2.1% stake is worth just under $580 million, as of Sept. 30. He previously transferred one million shares, now worth about $1.3 billion, to his children.

In 2015, Leonard announced he would no longer take a salary or cash bonus. The company has reported no

compensation at all for him in the past three years.

In his 2015 letter to shareholders, Leonard said he did that partly because he wanted to cut back on the "weekends, all-nighters and a constant grind of 60-hour-plus weeks that characterized my earlier career." But he added, "One of the results of this compensation change is that I get to side-step the agent-principal problem. My compensation for being president is now tied solely to my current ownership of CSI shares. In essence, I'm your partner in CSI, not your employee. I like the feel of the partner relationship a whole lot better." (When asked about the company's compensation system, Constellation pointed to that letter.)

"We have found that, generally speaking, founders have more rational pay plans because they're already so invested in the stock. They don't really need any more stock awards and generally have lower cash [compensation] as well, because they're already making money from their original investment," says Nell Minow, vice-chair of ValueEdge Advisors, a corporate-governance consultancy.

Prem Watsa founded Fairfax Financial Holdings Inc. in 1985. He has taken $600,000 a year in salary since 2000, with no cash bonus or executive pension, and he has never received stock awards as part of his pay, the company says. His stake in Fairfax is worth about $1.1 billion as of Sept. 30.

"Mr. Watsa's compensation arrangements reflect his belief that as a controlling shareholder involved in the management of the company, his compensation should be closely linked to all shareholders," the company said in its annual proxy statement. "This close link is achieved by his 'compensation,' beyond a fixed salary, coming only from his share ownership."

Other CEOs with major shareholdings who received no equity awards in 2018 include Gerald Schwartz of Onex Corp., whose stake in the company is worth just over $1 billion as of Sept. 30. However, Onex granted him 3.95 million stock options in January 2014, then valued at nearly US$60 million.

Schwartz had exercised all of a 2004 option grant in 2013, leaving him with no more options. Onex said in 2014 that its board believed "stock options are an integral part of executive compensation and are fundamental to the alignment of interests and the incentivization of future performance."

Onex said it would grant no more options for the next five years, and the options it gave Schwartz required the stock rise at least 25% before they could be used. Emilie Blouin, Onex's director of investor relations, declined to comment for this article.

It's important to note that Watsa and Schwartz have super-voting shares that allow them control of their companies greater than their economic stakes. That's quite common in Canada, where many large public companies have family or founder ownership, and special voting rights designed to perpetuate it.

"I think the biggest challenge to deal with founders and the board is to have the board truly demonstrate that they are independent and that they're not being controlled by a founder's request, and making sure that a lot of these awards that are granted are still at risk and have forfeiture components," says Paul Gryglewicz of Global Governance Advisors.

Many other companies also have CEOs with large shareholdings and face the same challenge. At Brookfield Asset Management, CEO Bruce Flatt's stake is worth $2.8 billion as of Sept. 30. He is one of 38 Brookfield partners who have the right to nominate half the company's board of directors. The company gave him a stock award valued at $5.4 million in 2018.

Company spokeswoman Claire Holland says Flatt's pay and the size of his stake owes to nearly 30 years of ownership and an 18% annualized return over that time. "Virtually all of Mr. Flatt's compensation is paid in long-term share awards, which are only of value if the corporation performs on behalf of all shareholders," she says.

That's the art of the deal in Canadian executive compensation: providing value to shareholders and to executives—sometimes in balance, sometimes not.

Top 3

	SALARIES		
$2 MILLION +	**R. Jeffrey Orr**	Power Financial Corp.	**$4,661,000**
	John Thornton	Barrick Gold Corp.	**$3,240,883**
	James Smith	Thomson Reuters Corp.	**$2,074,165**
	BONUSES		
$5 MILLION +	**John Thornton**	Barrick Gold Corp.	**$12,619,996**
	Donald Walker	Magna International Inc.	**$10,016,920**
	James Smith	Thomson Reuters Corp.	**$5,366,279**
	BIGGEST STOCK AWARDS		
$10 MILLION +	**John Chen**	BlackBerry Ltd.	**$139,051,030**
	Daniel Schwartz	Restaurant Brands International Inc.	**$21,181,725**
	Ronald Mittelstaedt	Waste Connections Inc.	**$14,609,604**
	BIGGEST OPTION AWARDS		
$5 MILLION +	**Donald Walker**	Magna International Inc.	**$6,170,640**
	James Smith	Thomson Reuters Corp.	**$5,703,957**
	Tobias Lütke	Shopify Inc.	**$5,186,042**

measuring up

The CEOs listed here lead Canada's 100 largest publicly traded corporations, measured by market capitalization as of Dec. 31, 2018. Base salary, bonus, stock awards and total compensation are listed for each. A more detailed breakdown, with additional components of pay, can be found at tgam.ca/r

2019 RANK	NAME	COMPANY	BASE SALARY	BONUS	STOCK AWARDS	TOTAL REPORTED COMPENSATION	% CHANGE
1	**John Chen**	BlackBerry Ltd.	**$1,308,100**	**$2,964,416**	$139,051,030	$143,341,533	3593%
2	**Donald Walker**	Magna International Inc.	**$421,315**	**$10,016,920**	$15,426,601	$26,021,694	-2%
3	**Daniel Schwartz**	Restaurant Brands International Inc.	**$1,037,082**	**$2,017,526**	$21,181,725	$24,349,238	352%
4	**Joseph Papa**	Bausch Health Cos. Inc.	**$1,944,530**	**$4,929,382**	$12,113,955	$19,109,604	201%
5	**James Smith**	Thomson Reuters Corp.	**$2,074,165**	**$5,366,279**	$11,407,930	$18,777,815	0%
6	**Ronald Mittelstaedt**	Waste Connections Inc.	**$1,227,177**	**$1,853,785**	$14,609,604	$17,750,032	151%
7	**Charles Magro**	Nutrien Ltd.	**$1,600,807**	**$4,415,024**	$9,942,725	$16,709,802	40%
8	**John Thornton**	Barrick Gold Corp	**$3,240,883**	**$12,619,996**	$0	$16,671,092	67%
9	**Doug Suttles**	Encana Corp.	**$1,425,988**	**$2,967,838**	$10,754,145	$15,532,764	-2%
10	**Bharat Masrani**	Toronto-Dominion Bank	**$1,334,988**	**$2,079,000**	$10,216,057	$15,316,065	23%
11	**Steven Williams #**	Suncor Energy Inc.	**$1,465,577**	**$3,061,000**	$9,999,634	$14,789,407	0%
12	**David McKay**	Royal Bank of Canada	**$1,500,000**	**$3,175,300**	$8,868,800	$14,489,977	8%
13	**Alain Bellemare**	Bombardier Inc.	**$1,447,767**	**$3,667,253**	$7,204,871	$13,781,399	0%
14	**Brian Porter**	Bank of Nova Scotia	**$1,200,000**	**$2,500,000**	$7,500,000	$13,250,990	3%
15	**Roy Gori**	Manulife Financial Corp.	**$1,423,033**	**$4,097,602**	$6,560,736	$12,986,344	*

Some companies have moved away from the use of stock options as a way to pay their executives. Not Magna International, which gave Walker options worth nearly $6.2 million. It's just one of several ways Magna keeps Walker among Canada's best-paid CEOs. His bonus plan, based on a share of the company's profits, also handed him just over $10 million.

Thornton's title at Barrick is technically executive chairman, but in 2018, he was paid like a CEO. Thornton's $12.6-million bonus was the biggest annual incentive payout among the country's top CEOs last year. The company said Thornton's role in designing its merger with Randgold Resources, and Barrick's status as the best-performing stock among its gold peers, merited the bonus. Thornton used the majority of his after-tax bonus to buy Barrick shares, the company says.

* = Information not available; # = Former CEO; (1) New CEO in 2018; (2) Includes pension compensation from Exxon Mobil and ownership

2019 RANK	NAME	COMPANY	BASE SALARY	BONUS	STOCK AWARDS	TOTAL REPORTED COMPENSATION	% CHANGE
16	**R. Jeffrey Orr**	Power Financial Corp.	**$4,661,000**	**$0**	$5,308,120	$12,600,072	2%
17	**Darren Entwistle**	Telus Corp.	**$1,375,000**	**$669,798**	$9,644,535	$12,563,216	3%
18	**Russell Girling**	TC Energy Corp.	**$1,362,508**	**$2,406,264**	$7,600,000	$12,502,397	25%
19	**Keith Creel**	Canadian Pacific Railway Ltd.	**$1,453,595**	**$3,148,551**	$6,888,920	$12,486,607	-38%
20	**Al Monaco**	Enbridge Inc.	**$1,404,278**	**$3,296,965**	$6,850,599	$12,354,496	-24%
21	**Sean Boyd**	Agnico Eagle Mines Ltd.	**$1,751,600**	**$4,183,821**	$5,818,315	$12,328,675	-2%
22	**George Cope**	BCE Inc.	**$1,400,000**	**$2,814,000**	$6,875,000	$12,014,442	5%
23	**Stephen Wetmore**	Canadian Tire Corp..	**$1,500,000**	**$1,063,762**	$8,999,545	$11,924,488	56%
24	**Calin Rovinescu**	Air Canada	**$1,400,000**	**$3,524,850**	$5,600,000	$11,551,850	28%
25	**Joe Natale**	Rogers Communications Inc.	**$1,270,865**	**$1,963,487**	$7,500,171	$11,549,593	*
26	**Tobias Lütke**	Shopify Inc.	**$760,181**	**$0**	$10,371,578	$11,131,760	4%
27	**Donald Lindsay**	Teck Resources Ltd.	**$1,607,500**	**$2,466,300**	$5,941,000	$10,709,800	0%
28	**Glenn Chamandy**	Gildan Activewear Inc.	**$1,555,624**	**$2,333,435**	$6,222,481	$10,329,219	-3%
29	**Darryl White** [1]	Bank of Montreal	**$1,000,000**	**$1,980,000**	$5,665,000	$10,124,234	*
30	**Victor Dodig**	Canadian Imperial Bank of Commerce	**$1,000,000**	**$2,131,524**	$6,394,576	$10,048,350	6%
31	**Dean Connor**	Sun Life Financial Inc.	**$1,100,000**	**$2,200,000**	$6,000,029	$9,712,859	6%
32	**Mark Barrenechea**	Open Text Corporation	**$1,231,535**	**$1,570,208**	$6,412,435	$9,262,351	-41%
33	**Barry Perry**	Fortis Inc.	**$1,300,000**	**$1,713,000**	$5,200,000	$9,080,480	-2%
34	**Louis Vachon**	National Bank of Canada	**$1,125,015**	**$1,890,000**	$5,062,503	$8,870,286	-5%
35	**John Floren**	Methanex Corp.	**$1,148,750**	**$2,770,000**	$4,336,534	$8,852,403	27%
36	**Brian Hannasch**	Alimentation Couche-Tard Inc.	**$1,748,260**	**$1,704,553**	$4,592,784	$8,768,891	-12%
37	**George Schindler**	CGI Inc.	**$1,210,938**	**$1,947,121**	$5,305,919	$8,568,137	17%
38	**Rafael Ashkenazi**	The Stars Group Inc.	**$1,288,167**	**$3,858,921**	$3,226,291	$8,561,115	73%

Most companies limit the salaries they pay to their CEOs and make incentive pay the bulk of compensation. Just three of the 101 CEOs in our survey made more than $2 million in 2018. Orr was the clear leader in guaranteed pay, with his $4.7-million salary more than twice as much as the third-highest-paid CEO. Power Financial says its board takes each executive's "responsibilities, experience and performance assessment" into account when setting salaries.

Plenty of folks would be happy with a $9-million pay package, but Barrenechea's 2018 compensation was reduced by 41% compared with 2017, the second-largest decline in our study. (Onex Corp. CEO Gerald Schwartz had the largest). Mr. Barrenechea saw his cash compensation drop 26%, due to a smaller bonus, and Open Text cut the size of his stock-option grant considerably.

PHOTOGRAPHS (WALKER) FRED LUM/THE GLOBE AND MAIL; (THORNTON) MARK BLINCH/REUTERS; (ORR) CHRISTINNE MUSCHI/REUTERS; (BARRENECHEA) JUSTIN TANG/CP

of only Imperial Oil; (3) Includes compensation and ownership from Power Corp. of Canada and Power Financial Corp.

2019 RANK	NAME	COMPANY	BASE SALARY	BONUS	STOCK AWARDS	TOTAL REPORTED COMPENSATION	% CHANGE
39	**Charles Brindamour**	Intact Financial Corp.	**$1,229,423**	**$1,584,009**	$5,227,500	$8,516,842	9%
40	**Jean-Jacques Ruest** [1]	Canadian National Railway Co.	**$873,383**	**$1,577,598**	$4,561,400	$8,485,415	*
41	**J. Paul Rollinson**	Kinross Gold Corp.	**$1,330,317**	**$1,903,685**	$3,857,922	$7,981,785	-16%
42	**Robert Peabody**	Husky Energy Inc.	**$1,528,750**	**$1,738,000**	$4,278,231	$7,884,276	14%
43	**Rich Kruger** [2]	Imperial Oil Ltd.	**$1,164,834**	**$561,038**	$4,599,416	$7,870,053	15%
44	**André Desmarais** [3]	Power Corp. of Canada	**$1,225,000**	**$1,500,000**	$4,728,773	$7,760,411	75%
45	**Bradley Shaw**	Shaw Communications Inc.	**$2,000,000**	**$3,896,200**	$1,107,250	$7,574,173	-37%
46	**Jeffrey Carney**	IGM Financial Inc.	**$1,254,667**	**$2,843,485**	$2,708,265	$7,261,362	25%
47	**Tim McKay** [1]	Canadian Natural Resources Ltd.	**$583,334**	**$4,319,179**	$2,236,875	$7,218,208	*
48	**Michael Dilger**	Pembina Pipeline Corp.	**$1,029,167**	**$1,944,600**	$3,675,000	$7,131,203	23%
49	**Paul Mahon**	Great-West Lifeco Inc.	**$1,223,400**	**$1,770,000**	$3,976,815	$7,116,415	-9%
50	**Marc Parent**	CAE Inc.	**$961,200**	**$1,695,370**	$3,496,496	$6,924,180	7%
51	**Tim Gitzel**	Cameco Corp.	**$1,025,000**	**$1,784,000**	$3,638,516	$6,765,816	8%
52	**Edward Sonshine**	RioCan Real Estate Investment Trust	**$1,300,000**	**$1,806,961**	$2,600,000	$6,706,961	17%
53	**Eric La Flèche**	Metro Inc.	**$932,212**	**$1,025,733**	$2,391,396	$6,580,728	87%
54	**Alexander Pourbaix**	Cenovus Energy Inc.	**$1,000,000**	**$880,000**	$4,499,993	$6,558,485	*
55	**Alexandre L'Heureux**	WSP Global Inc.	**$1,100,000**	**$2,126,300**	$3,024,930	$6,542,230	6%
56	**Ravi Saligram**	Ritchie Bros. Auctioneers Inc.	**$1,296,353**	**$1,475,742**	$3,538,701	$6,535,549	22%
57	**J. Bruce Flatt**	Brookfield Asset Management Inc.	**$972,265**	**$0**	$5,357,568	$6,378,446	-28%
58	**Anthony Marino**	Vermilion Energy Inc.	**$668,221**	**$500,000**	$4,999,880	$6,245,635	51%
59	**Scott Balfour** [1]	Emera Inc.	**$986,673**	**$1,668,000**	$2,800,002	$6,124,668	*

Imperial gave Kruger more than $9.1 million in cash and stock last year. Yet his total compensation was just under $7.9 million. How does that work? Well, consider pension accounting, which may be as much an art as a science. Companies estimate how much they will owe their executives in retirement. But if a CEO's paycheque is less than anticipated in a given year, the "change in pension value" can be a negative number. That's what happened at Imperial, where Kruger's $1.25-million pension reduction was the biggest in our survey.

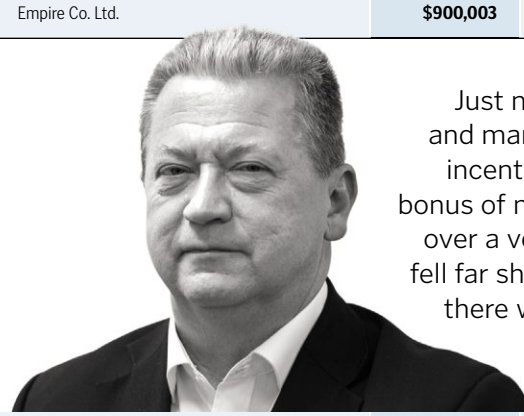
Shaw Communications had what might have been the most generous executive pension plan in Canadian history: It racked up $378 million in benefits for 15 executives in just 10 years, before it was closed to new participants in June 2012. Bradley Shaw is still a member, however, and the company said that at its most recent year end, it owed the son of company founder JR Shaw nearly $100 million.

Once Quebec grocer Metro completed its deal to buy pharmacy chain Jean Coutu Group, La Flèche received a new employment contract with a higher salary, more stock awards and an enhanced pension. Metro's decision in 2018 to raise the maximum amount he can receive in retirement was worth nearly $2 million, the company estimates, making it the biggest boost to an executive pension among the 101 CEOs.

* = Information not available; # = Former CEO; (1) New CEO in 2018; (2) Includes pension compensation from Exxon Mobil and ownership

PHOTOGRAPHS (KRUGER) JEFF MCINTOSH/GLOBE AND MAIL; (SHAW) TODD KOROL; (FLÈCHE) CHRISTINNE MUSCHI/THE GLOBE AND MAIL; (BRUCE) FRED LUM/THE GLOBE AND MAIL; (SCHMIDT) CHRISTOPHER KATSAROV/THE GLOBE AND MAIL

2019 RANK	NAME	COMPANY	BASE SALARY	BONUS	STOCK AWARDS	TOTAL REPORTED COMPENSATION	% CHANGE
60	**Phillip Pascall**	First Quantum Minerals Ltd.	**$1,555,624**	**$1,296,353**	$3,111,247	$5,966,597	19%
61	**L. Scott Thomson**	Finning International Inc.	**$973,350**	**$894,697**	$3,750,000	$5,918,689	-3%
62	**Randy Smallwood**	Wheaton Precious Metals Corp.	**$971,132**	**$2,375,567**	$2,343,526	$5,690,225	21%
63	**Michael Medline**	Empire Co. Ltd.	**$900,003**	**$1,620,000**	$2,750,000	$5,535,782	*
64	**Neil Bruce**	SNC-Lavalin Group Inc.	**$1,158,654**	**$0**	$4,019,395	$5,448,237	-13%
65	**Paul Desmarais Jr.** [3]	Power Corp. of Canada	**$1,225,000**	**$1,500,000**	$2,729,385	$5,229,634	-21%
66	**Mayo Schmidt**	Hydro One Ltd.	**$636,924**	**$700,616**	$3,104,991	$4,940,838	*
67	**Geoffrey Martin**	CCL Industries Inc.	**$1,484,656**	**$1,032,608**	$2,048,200	$4,940,044	-30%
68	**Sachin Shah**	Brookfield Renewable Partners LP	**$570,214**	**$0**	$4,290,747	$4,893,939	-20%
69	**Ted Seraphim**	West Fraser Timber Co. Ltd.	**$820,095**	**$1,044,250**	$1,955,915	$4,652,960	7%
70	**Ian Robertson**	Algonquin Power & Utilities Corp.	**$920,000**	**$1,113,149**	$2,163,500	$4,432,823	13%
71	**Anthony Makuch**	Kirkland Lake Gold Ltd.	**$910,000**	**$1,730,820**	$1,619,998	$4,352,873	17%
72	**Dani Reiss**	Canada Goose Holdings Inc.	**$1,019,231**	**$2,316,420**	$986,314	$4,321,965	73%
73	**Andrew Phillips**	PrairieSky Royalty Ltd.	**$550,000**	**$925,000**	$2,750,000	$4,291,000	7%
74	**Thomas Hofstedter**	H&R Real Estate Investment Trust	**$1,200,000**	**$1,341,000**	$1,600,000	$4,141,000	10%
75	**Galen G. Weston**	Loblaw Cos. Ltd.	**$590,000**	**$1,104,259**	$2,360,007	$4,086,971	36%
76	**Marie Inkster** [1]	Lundin Mining Corp.	**$662,934**	**$756,495**	$2,636,289	$4,081,965	*
77	**David Harquail**	Franco-Nevada Corp.	**$812,750**	**$812,750**	$2,438,250	$4,078,816	-10%
78	**Michael Emory**	Allied Properties Real Estate Investment Trust	**$800,000**	**$1,200,000**	$2,013,238	$4,053,238	26%
79	**Lino Saputo Jr.**	Saputo Inc.	**$1,300,000**	**$2,669,680**	$0	$3,969,680	-24%
80	**Neil Rossy**	Dollarama Inc.	**$1,100,000**	**$605,000**	$2,221,200	$3,940,604	-5%



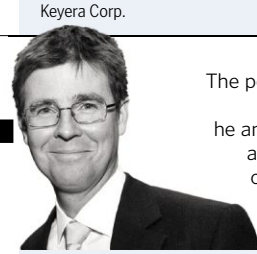
Just nine CEOs in our survey received no bonus, and many of them decline to participate in annual incentive plans. Bruce, however, was in line for a bonus of more than $2 million—had he not presided over a very bad year at SNC-Lavalin. The company fell far short of earnings and cash-flow targets, and there was no payout for him. In June of this year, he departed the role entirely.

Ontario Premier Doug Ford dubbed Schmidt the "$6-million man" before running him out of his CEO job midway through 2018. But Schmidt's final 2018 compensation came in below the number that Ford hammered home in his criticism of the utility. Stock awards were always a big part of Schmidt's pay, but his base salary for half a year's work was down from $1.1 million in 2017.

of only Imperial Oil; (3) Includes compensation and ownership from Power Corp. of Canada and Power Financial Corp.

2019 RANK	NAME	COMPANY	BASE SALARY	BONUS	STOCK AWARDS	TOTAL REPORTED COMPENSATION	% CHANGE
81	**Christian Bayle**	Inter Pipeline Ltd.	**$675,000**	**$940,000**	$2,100,000	$3,934,566	10%
82	**Scott Medhurst**	Toromont Industries Ltd.	**$780,000**	**$1,494,377**	$1,331,000	$3,886,773	4%
83	**David Smith**	Keyera Corp.	**$600,000**	**$1,068,000**	$2,137,644	$3,865,644	12%

84 Galen G. Weston



The performance of George Weston in 2017 merited a bonus for Galen G. Weston, the company said. But as it wrangled with a federal investigation into price fixing in the bread industry, he and other top executives waived their payments. That reflected "their overall accountability as leaders of the business and their commitment to high standards of ethical conduct," the company said. Annual incentive pay returned in 2018, and Galen G. Weston's bonus helped drive a 146% increase in cash compensation, one of the biggest in our survey.

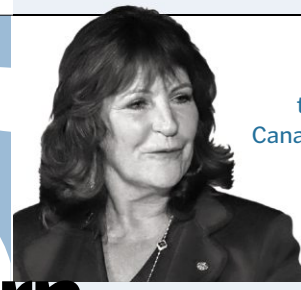
		George Weston Ltd.	**$590,000**	**$858,804**	$2,360,076	$3,841,585	28%
85	**Robert Espey**	Parkland Fuel Corp	**$777,500**	**$1,358,681**	$1,571,622	$3,782,662	58%
86	**Adam Paul**	First Capital Realty Inc.	**$800,000**	**$926,000**	$1,950,000	$3,724,800	9%
87	**Nancy Southern**	Canadian Utilities Ltd.	**$875,000**	**$1,050,000**	$491,082	$3,495,913	-21%
88	**Marty Proctor**	Seven Generations Energy Ltd.	**$450,000**	**$604,800**	$2,356,346	$3,477,927	*
89	**Michael Rose**	Tourmaline Oil Corp.	**$600,000**	**$2,250,000**	$242,198	$3,152,198	7%
90	**Yvon Charest** #	iA Financial Corp. Inc.	**$872,548**	**$879,280**	$857,557	$2,609,385	7%

91 Pierre Karl Péladeau

What do you do when a short, promising political career ends? Is there a private-sector opportunity available? It helps to have a company called Quebecor to welcome you back as CEO. Péladeau, who resigned as leader of the Parti Québécois in 2016, is low-paid by Canadian CEO standards, making just under $2.6 million in 2018. Only three CEOs, however, have more than $2 billion worth of stock in their company, as Péladeau does.

		Quebecor Inc.	**$1,300,000**	**$1,225,730**	$0	$2,568,930	*
92	**Bruce Linton**	Canopy Growth Corp.	**$200,000**	**$300,000**	$1,994,723	$2,516,014	316%
93	**Peter Anderson**	CI Financial Corp.	**$650,000**	**$720,000**	$1,080,019	$2,450,019	-16%
94	**Gerald Schwartz**	Onex Corp.	**$1,685,259**	**$0**	$0	$1,685,259	-86%
95	**Terry Booth**	Aurora Cannabis Inc.	**$325,000**	**$243,750**	$1,026,422	$1,595,172	-35%
96	**Peter Forde** [1]	SmartCentres Real Estate Investment Trust	**$492,480**	**$245,107**	$745,107	$1,497,500	*

97 Nancy Southern

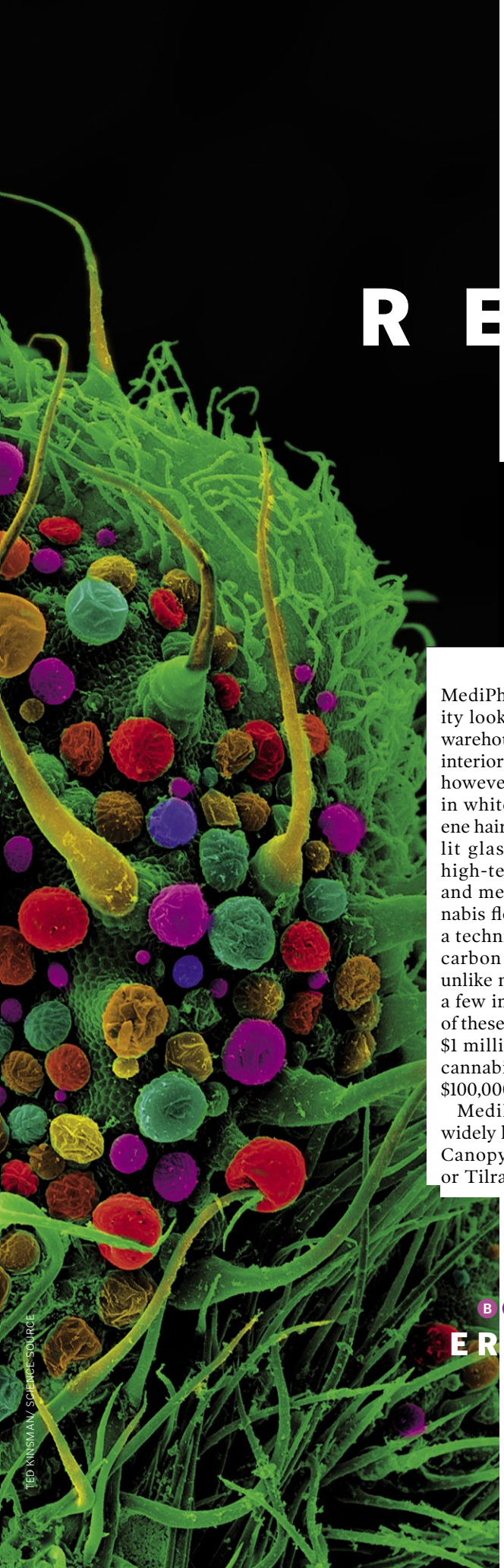


Southern looks like a bargain-priced CEO by the standards of the other top 100, but that's due to a quirk: She's actually the CEO of two valuable Canadian public companies. The bulk of her pay comes from Atco subsidiary Canadian Utilities Ltd., where she makes $875,000. Her longstanding service to both companies has allowed her to accumulate a pension valued at $29.8 million, one of the biggest among her CEO peers.

		Atco Ltd.	**$125,000**	**$150,000**	$917,581	$1,346,843	-12%
98	**V. Prem Watsa**	Fairfax Financial Holdings Ltd.	**$600,000**	**$0**	$0	$1,318,207	111%
99	**Jeff Tygesen** #	Turquoise Hill Resources Ltd.	**$205,852**	**$229,023**	$539,170	$984,089	*
100	**David Ehrlich** # [1]	Canadian Apartment Properties REIT	**$700,000**	**$0**	$0	$719,460	*
101	**Mark Leonard**	Constellation Software Inc.	**$0**	**$0**	$0	$0	0%

* = Information not available; # = Former CEO; (1) New CEO in 2018

PHOTOGRAPHS (WESTON) NATHAN DENETTE/CP; (PÉLADEAU) DENIS BEAUMONT/CP; (SOUTHERN) JEFF MCINTOSH/CP



TED KINSMAN / SCIENCE SOURCE

WITHIN RESIN

CANNABIS EDIBLES, BEVERAGES AND VAPING ARE COMING TO CANADA.

MEET THE COMPANY SET TO SUPPLY THE KEY INGREDIENT

BY ERIK HEINRICH

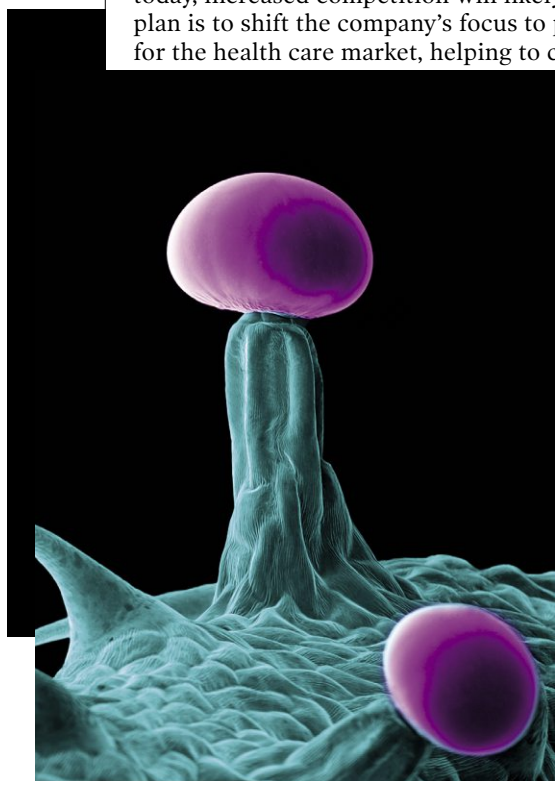
From the outside, MediPharm Labs' production facility looks like another non-descript warehouse in an industrial park. The interior of the facility in Barrie, Ont., however, is a beehive of employees in white lab coats and polypropylene hair nets working inside brightly lit glass cubes. They hover over high-tech machinery with pedals and metal cylinders that turn cannabis flower into concentrate using a technique known as supercritical carbon dioxide extraction. It's not unlike making espresso coffee, with a few important distinctions. Some of these custom-made machines cost $1 million, and a single litre of the cannabis resin is worth as much as $100,000.

MediPharm Labs Corp. is not as widely known as market leaders like Canopy Growth, Aurora Cannabis or Tilray—but it's catching up fast. It's been overlooked so far as a niche player without a multibillion dollar valuation. Unlike other cannabis companies, the firm isn't trying to manage an entire supply chain from farming to processing to marketing. Instead, as the name suggests, it's a pharmaceutical maker focused on doing one thing really well. MediPharm buys high-quality cannabis flowers from more than 20 carefully vetted suppliers, then converts them for use in recreational and medical products. "We've adopted a Swiss perspective. We work with many suppliers and sell to many customers," says Pat McCutcheon, co-founder and CEO of MediPharm Labs. In other words, they're neutral—not passive. On the day of this interview, McCutcheon wears a dark suit with a tartan pattern and a navy tie with tiny skulls and bones, hinting at a rebellious streak.

The next chapter of pot legalization, dubbed Cannabis 2.0, will introduce new products—such as edibles, beverages, vape pens and creams—by mid-December of this year, all of which will be fuelled by the kind of cannabinoid-based extracts produced by MediPharm Labs. In effect, the company aims to be to cannabis what Frank Stronach's Magna International is to the global car business—a strategic supplier of critical components that go into nearly everything its industry makes. That position in the middle of the supply chain has allowed MediPharm Labs to emerge as the biggest contract manufacturer of cannabis oil not only in Canada, but quite possibly North America and the world. Under the deal signed last month with Mississauga's TerrAscend, a seller of prescription cannabinoids, McCutcheon's firm will supply distillate worth $27 million over two years, with a potential to balloon to $192 million over three years. An agreement with the Cronos Group to supply high-quality cannabis concentrate is worth $30 million over 18 months, with the potential to double. Strategic partnerships like these have turned MediPharm Labs into the most profitable cannabis company in the country and the fourth-biggest by revenue after Canopy, Aurora and Aphria.

MediPharm's upward climb through industry ranks comes as the hype surrounding the first phase of cannabis legalization in Canada has been dampened by a few sobering realities. Virtually everyone in the industry is losing money, the threat of writedowns looms large, and the recent health controversy over vape products has caused the valuation of cannabis stocks to take a significant hit. But MediPharm reported net income of $4.1 million on revenue of $31.5 million in its latest quarter. Maybe its low-key, focused approach is exactly what the industry needs. "We don't sell mystery," explains McCutcheon, 39, noting his company's market cap is $442.8 million. The company recently switched its public listing to the TSX from the more speculative TSX Venture Exchange. "We sell fundamentals and execution."

McCutcheon worked in the medical industry for 15 years before launching his cannabis firm in 2015 with company president Keith Strachan. His last stint was at Johnson & Johnson, where he led a hospital division focused on kidney and mental health drugs. He's the company strategist, keeping an eye on the global picture. While producing resins and distillates for edibles and beverages seems lucrative today, increased competition will likely squeeze margins. McCutcheon's plan is to shift the company's focus to producing 99.9% pure ingredients for the health care market, helping to create drugs to combat everything from chronic pain to cancer.



Colour-enhanced scanning electron micrograph of a cannabis plant leaf (above); cannabis plant (previous page); cannabis flower (opposite page)

By contrast Strachan, 34, is the regulatory brains. His background in hospital procurement and government contracts enabled his firm to land the first-ever cannabis oil production licence in Canada granted to a non-cultivator. McCutcheon and Strachan met at the Royal Victoria Regional Health Centre in Barrie, and soon recognized they had similar ambitions. Their shared pharma experience has created opportunities, including participation in a ground-breaking clinical trial for developing a non-addictive medication for opioid addiction at New York's Mount Sinai Hospital. "I like MediPharm's management team because they come from a pharmaceutical background," says analyst Scott Fortune with Roth Capital Partners in Newport Beach, Calif. "If you start from a high scientific level, it's easy to transfer that knowledge to everyday consumer products."

And a wave of consumer products is on its way. The next wave of legalization will bring branded offerings with high margins: cannabis-infused edibles like cookies and gummy worms, beverages, topical creams and vape dispensers. Conservative estimates place the value of the Canadian cannabis industry at about $6 billion by 2021 while these new products are expected to be worth about $2.7 billion, according to a recent Deloitte study. And they might also help address some of the challenges that have bedevilled the industry so far.

The sale of legal cannabis products in this country has so far been stymied by myriad factors, including the slow rollout of dispensaries in most provinces. This, in turn, has fuelled an unregulated online market for cannabis products that largely escapes enforcement. Meanwhile, licensed retailers are carefully scrutinized for compliance. "It's hard for the regulated market to compete, with all the restrictions on packaging and advertising, when the black market is allowed to operate outside the law," says Louis Barre, principal at Ottawa-based consultancy Cannab Intel. The situation is compounded by the premium paid by Canadians for legal cannabis bud—as much as 80% above unregulated and untaxed prices. "A premium of no more than 20% is needed for the legal market to thrive," says John Kagia, chief knowledge officer at New Frontier Data in Washington, D.C.

The illegal market will have a tough time competing with the new offerings coming with Cannabis 2.0. "The next generation of products will

Congratulations to these recent appointees

Phillip Crawley, Publisher & CEO of The Globe and Mail, extends best wishes to the following individuals who were recently featured in the Report on Business Section of The Globe and Mail newspaper. Congratulations on your new appointments.

Phillip Crawley

The Honourable John Manley P.C., O.C.
to Senior Advisor to the firm
Bennett Jones LLP

Gordon McKenna
to Partner, Toronto
Bennett Jones LLP

Michael Smith
to Partner, Toronto
Bennett Jones LLP

Jocelyne Houle
to Chair, Board of Directors
Canada Lands Company

Margaret MacDonald
to Board of Directors
Canada Lands Company

Richard Olfert
FCPA, FCA
to Vice-Chair of the Board
Chartered Professional Accountants of Canada

Amanda Whitewood
FCPA, FCMA
to Chair of the Board
Chartered Professional Accountants of Canada

Tim Haney
to Managing Partner, Calgary
Dentons LLP

Jaime McKenna
to Managing Director and Group Head, Real Estate
Fengate Asset Management

Catherine Misson
to Principal
Havergal College

Alain Bergeron
to Executive VP and Chief Investment Officer
iA Financial Group

Mike Stickney
to Executive VP and Chief Growth Officer
iA Financial Group

Daniel R. Hursh
to Board of Directors
James Richardson & Sons, Limited

Bryden R. Richardson
to Board of Directors
James Richardson & Sons, Limited

James A. Richardson
to Board of Directors
Kingston Midstream

be more effective at combating the black market because quality will be much higher," says McCutcheon. Consumers have criticized the quality of the legal bud now available at licensed dispensaries, leading them to see advantages to partaking in unlicensed options. But it's unlikely that illegal operators will be able to make the technological investment to produce these new products. MediPharm Labs' equipment was designed by biotech specialists, including GMP Engineering of Newmarket, Ont., whose clients include Pfizer, GlaxoSmithKline and Bayer. MediPharm has spent $30 million on its Barrie facility so far, and plans to spend a further $15 million to $20 million over the next 18 months.

In addition, every batch of legal cannabis oil made in this country must be analyzed by third-party labs that check for undesirable compounds including heavy metals, pesticides and residual solvents. A company must also prove that its emulsification or mixing process is sufficiently robust to distribute active ingredients evenly in, say, an edible or beverage before a product is greenlit by Health Canada.

In contrast, illegally made products have little or no quality control. Open-tank mixing by hand results in poor ingredient dispersal, and the result is product that fails to deliver consistency and predictability of experience. A much bigger problem is that the black market often uses untested additives and cutting agents. There are indications that the latest outbreak of pulmonary disease linked to vaping in the U.S. is linked to vitamin E acetate, commonly used to enrich the colour and viscosity of low-quality oils. It's sometimes safe when used in topical skin creams, but toxic when inhaled.

In American jurisdictions in which recreational cannabis products are legal, there is no shortage of stories about people either getting too high—or not getting high at all—from different products that report having the same dose. Analysts blame the fact that U.S. cannabis laws are made at the state rather than federal level, making standardization difficult to achieve. "Canada's rollout of Cannabis 2.0 won't be entirely smooth," says Fortune. "But it will be safe, and it's unlikely to be plagued by many of the issues we've seen in U.S. jurisdictions."

It's after 5 p.m. and McCutcheon is sitting in his new office on the 42nd floor in Toronto's financial district, winding down from another juggernaut day. It began with a 90-kilometre drive south down the highway from Barrie for meetings on Bay Street. The schedule also included discussions with a potential joint-venture partner and face time with PowerOne, one of the company's private equity investors. Over five years, McCutcheon has watched Canada's legal cannabis industry grow, but there's one thing that still surprises him. "It's the influence that capital markets have over the fundamental operations of companies," he says. "The pressure and anxiety around raising exorbitant sums of money to build facilities even before you have a licence is huge."

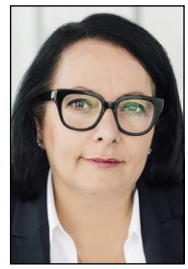
MediPharm Labs has been lucky in that respect. Its latest round of financing in June raised $75 million in a bought deal underwritten by a syndicate led by Scotia Capital, GMP Securities and BMO Nesbitt Burns. That same month, MediPharm Labs signed a manufacturing agreement with Toronto-based Ace Valley to potentially produce at least two million cannabis-oil vape pens over the next three years. That number could increase significantly depending on the direction the market takes.

Meanwhile, to press ahead with McCutcheon's plan to become a global supplier of specialty medicinal ingredients, MediPharm Labs will need an international footprint. The first step is opening an extraction facility in Australia later this year. "We're going to look a lot different two years from now, I guarantee it," says McCutcheon. Estimates on the size of the global medical market for cannabis products vary, but at the high end it could be worth as much as US$148 billion by 2026. Australia will be the launch pad into Thailand and South Korea for the company. Those countries are ideal partners for MediPharm Labs because they're most interested in importing finished products. The Canadian company is also working to obtain a GMP (good manufacturing practice) certification for export into the EU and Latin America. "Five years ago only four countries around the world were open to cannabis-derived medicines," says Kagia at New Frontier Data. "Today that number is more like 60 and counting."

Being able to respond to market trends is important as consumers refine their tastes. In the U.S. there's been a dramatic shift to infused products in recent years. Edibles and beverages have played a role, but vaping is the single biggest factor, accounting for 30% of a US$13.6-billion market for cannabis. "We can scale up for customer orders and build needed capacity with speed," says Strachan. That ability to execute with precision has been a big reason behind his company's rise into the front ranks of the cannabis industry. Staying there will be the challenge.

Recent Appointees

Sprague K. Richardson
to Board of Directors
Kingston Midstream



Lucy Iacovelli
to Canadian Managing Partner for Tax & Chief Administrative Officer
KPMG

Stephanie Terrill
to National Leader of Management Consulting, Toronto
KPMG

Béatrice Clerc
to President
Novo Nordisk Canada Inc.

Roberta Hague
to Senior VP, Corporate Affairs
ONE Properties

Hilary A. Partner
to Board of Directors
Richardson Foundation

Kathleen M. Ramsay
to Board of Directors
Richardson Foundation

G. David Richardson
to Board of Directors
Richardson Foundation

Raif W. Richardson
to Board of Directors
Richardson Foundation

Thor R. Richardson
to Board of Directors
Richardson International Limited

Laurel K. Thomson
to Board of Directors
Richardson International Limited

Julie A. Lassonde
to Board of Governors
Royal Ontario Museum

Joseph Lebovic, C.M.
to Board of Governors
Royal Ontario Museum

Patricia L. Olasker
to Vice Chair, Board of Governors
Royal Ontario Museum

Jeff Willner
to Chair, Board of Governors
Royal Ontario Museum

Aidan W. Richardson
to Board of Directors
Tundra Oil & Gas Limited

R. Ronald Richardson
to Board of Directors
Tundra Oil & Gas Limited

Shauneen Bruder
to Chair, Board of Governors
University of Guelph

Tim Stinson
to Executive VP, Investor Relations
Waratah Capital Advisors Ltd.

Haig Oghigian, FCIArb
to the International Arbitration team
Woods LLP

BULL FIGHT

Stock markets stumbled badly and then picked themselves up in 2019, but they appear to be headed into another year of struggles /By Tim Shufelt

IF IT FEELS LIKE YOUR MONEY IS STUCK IN PURGATORY, IT'S NOT JUST YOU.

For two years now, Canadian and U.S. stocks have generally traded sideways, with the occasional investor freakout or burst of enthusiasm balancing later to little net effect. "Bull markets have periods of robust, explosive gains and then they have periods of sideways consolidation, and I think we're in one of those," says Brian Madden, a portfolio manager at Goodreid Investment Counsel in Toronto.

This phase of indecision over the fate of the bull market aligns with the trade dispute between the two largest economies in the world. Competing tariffs on more than US$700 billion in two-way trade between the U.S. and China are taking a toll, particularly on manufacturing activity, but the trade war in its current form is probably not sufficient to torpedo the global economy on its own.

That has put stock markets in a kind of limbo, waiting for the thing that will set off the next major correction or cue the next surge. On the negative side, economies heavily dependent on trade have been hit hard. Germany is quickly veering toward a recession, with its manufacturing sector mired in its worst slowdown in a decade.

While a resolution of the U.S.-China dispute makes sense for both countries, each has also proved willing to fight a long campaign. "If there's an escalation, there's real scope for a recession and a wicked equity bear market," Madden says.

There are several other negative forces weighing on the global economy and investor sentiment: U.S. political turmoil and the uncertainty around impeachment, a slowdown in U.S. corporate profit growth, the proliferation of negative yields on trillions worth of sovereign bonds around the world and the recent inversion of some key yield curves, which is often a portent of a recession.

In addition to the global uncertainty, the Canadian market faces some unique challenges. Banks and resource companies dominate the index, and the banks have been dogged by concerns about interest rates and profitability, while petroleum and metals producers have suffered from weak prices for oil and other commodities.

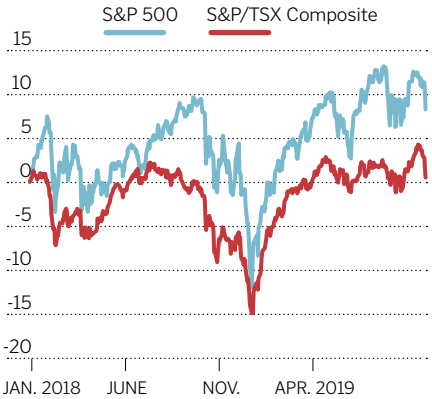
Yet the odds of a U.S. recession—and, by extension, one in Canada—over the next year or so seem to be low, according to a consensus among economists. Canadian and U.S. job markets are providing work for nearly all who want it, and both economies are forecast to grow enough to maintain full employment next year.

The strains in corporate credit that typically presage downturns cannot yet be detected. And the average U.S. household is in good shape, which bodes well for the country's mighty consumer sector.

It's a decent bet that a delicate balance will keep markets in check in the months ahead, says Christopher Blumas, vice-president at GlobeInvest Capital Management in Toronto. "You can certainly make a case for the status quo being maintained for quite a while."

Here are some of the big themes to look out for over the next year.

After a decade of gains, stocks have levelled
Percentage change



U.S. POLITICS

Markets won't have an easy time figuring out who to root for in the U.S. presidential election next November.

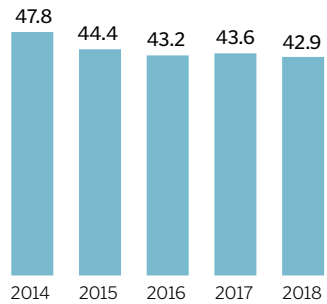
The Trump administration is usually very supportive of corporations, and its early tax cuts provided a huge boost to U.S. earnings, the primary driver of equity prices over the long term. But Wall Street is no fan of Trump's protectionism. More than 40% of revenues generated by S&P 500 companies come from outside the U.S., and tariffs don't help foreign sales.

"We are unconvinced that a Trump re-election will necessarily be seen as business friendly, since issues like trade wars and unpredictable tweets appear to be hurting corporate confidence," Citigroup chief U.S. equity strategist **Tobias Levkovich** says in a report.

Democratic candidates, however, have put forth some policy ideas that don't generally play well in boardrooms. Things like wealth taxes, changes to capital gains taxes and stricter regulations on the energy sector could weaken market sentiment should the Democrats take control of the White House.

Trade wars are hurting foreign sales of U.S. companies

Percentage of S&P 500 revenues generated outside the U.S.



INTEREST RATES

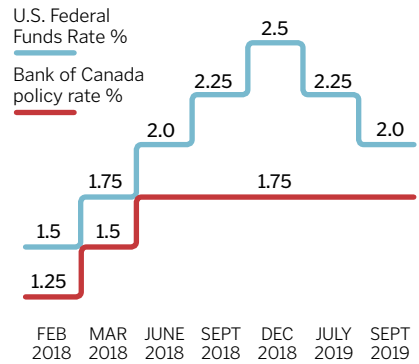
Jerome Powell can't win. First, the U.S. Federal Reserve chair raised the ire of the President by keeping interest rates in place. Then, when Powell loosened monetary policy in July amid a global slowdown, Trump called him a "bonehead" for not cutting rates even further.

But the Fed's about-face, and stimulus by other central banks, is a big reason markets have stayed resilient. "I'm reasonably confident the Fed prevented a full-blown recession," says Goodreid's **Brian Madden**.

The negative trend in interest rates and bond yields around the world shows no signs of reversing. Bank of Canada Governor Stephen Poloz didn't lower rates in the first three quarters, but he also took note of the global slowdown.

As long as the safest government bonds yield next to nothing, stocks will look attractive. The gap between the S&P 500's earnings yield and the yield on long-term Treasuries, for example, suggests a 90% probability the index will rise over the next 12 months, Citi's Levkovich wrote in September.

President Trump says U.S. Fed chair Jerome Powell is keeping interest rates too high



CORPORATE EARNINGS

Depending on who you ask, U.S. corporations fell into a so-called "earnings recession" this summer, which is defined as two consecutive quarters of shrinking profits.

It was partly a hangover from the earnings windfall generated by corporate tax cuts early in the Trump administration, made worse by the global slowdown and rise in the value of the U.S. dollar through most of 2019.

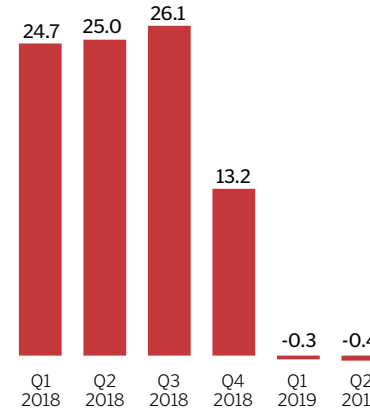
When earnings aren't growing, it takes rising trading multiples to fuel share price gains. By many metrics, U.S. stocks are trading at the high end of the historical range of those multiples.

"You're paying up, and that in itself opens you up to some risk," says **Christopher Blumas** at GlobeInvest. "If things don't materialize as expected, multiples can contract pretty quickly."

In both Canada and the U.S., earnings are expected to grow by about 5% in 2020—enough to sustain the market, but not get investors' pulses racing.

U.S. companies have entered an "earnings recession"

S&P 500 companies annualized earnings growth %



SOURCES (LEFT) BLOOMBERG (RIGHT) S&P DOW JONES INDICES; U.S. FEDERAL RESERVE AND BANK OF CANADA; FACTSET

MARK MACHIN

PRESIDENT AND CEO
CANADA PENSION PLAN INVESTMENT BOARD | TORONTO

Canadians are earnest, and we take pride in things like our picturesque mountains, our medicare system and the Canada Pension Plan. Until the 1990s, all of the plan's assets were invested in domestic government debt. Then, Ottawa gradually loosened the strings, allowing the Canada Pension Plan Investment Board (CPPIB) to invest in any assets in any jurisdiction around the world. Now, a third of its $400 billion in holdings are in stocks and another quarter in so-called real assets, such as infrastructure, private equity and property. Over the past decade, the CPPIB has posted an impressive average annual return of 11.1%. But global economic growth is waning, and Machin expects the board's returns will slow over the next decade. We spoke with him about investment strategy and how other countries have trouble emulating Canada's approach.

Unlike most of us, you can invest in everything and anything. What is your investment approach?
We have some inherent advantages. We have a super-long-term time horizon. We also have the certainty of assets—we won't get redemptions when markets drop. We have some scale too. For the last decade, we've been trying to develop advantages, like hiring talented people and working with the best partners—real estate developers, hedge funds, private equity investors and others. We also have a total portfolio approach. We don't just fill traditional asset buckets. We see returns as coming from three sources: diversification, security selection—making sure you pick the good deal from the bad deal—and medium-term strategic tilting away from our long-term portfolio construction.

Why invest in so many different things?
The nirvana of investing is having multiple uncorrelated return streams—so one thing can still do well when others are falling. That's hard, because markets and asset classes are synchronized around the world. We start by looking outside of Canada. We have 85% of our assets abroad. Then we diversify across asset classes.

You've had great returns over the past decade. Can you repeat that over the next 10 years?
It's always difficult to make predictions, but yes, we were in the super-long cycle of U.S. growth, and so we had 10 fabulous years. But we have to stay humble, and let's certainly not predict those types of returns over the next 10 years. There are tensions between the first- and second-largest economies in the world. That's causing significant uncertainty, particularly in manufacturing. Businesses don't have confidence to build the next plant. It hasn't spilled over to the U.S. consumer, but it's rippling through the world.

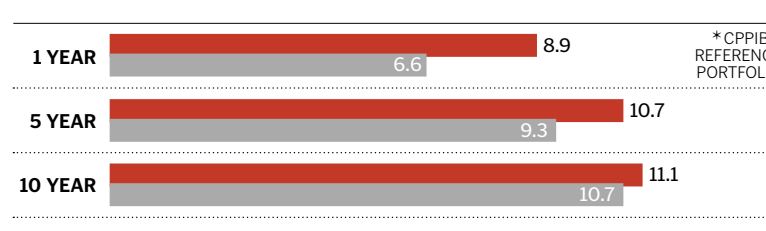
How does that affect what you're doing?
Diversification is really important, but major markets are slowing, and central banks are trying to stimulate. We're at the end of a short-term and a long-term debt cycle, so you have an astronomical amount of debt around the world. We're trying to pick our spots, but there's really nowhere to hide. We have to be able to deal with things, no matter what happens.

What will you do if things slow down?
The first thing we do is ask ourselves, what's the worst conceivable thing that could happen to the markets, to the geopolitical situation and so on? We stress-test our portfolio to make sure we have sufficient liquidity, and that we can rebalance and continue our portfolio construction no matter what. The second thing is having the capability to take advantage of situations when others are under considerable stress. We have teams and partners who can judge whether something really is a good investment at this time.

Where are you seeing opportunities today?
Nothing's cheap. There's still plenty of money that's chasing the most interesting things. We've continued to find good opportunities in private equity, and we've done a number of interesting deals this year, like Merlin Entertainments, the global theme park company. We did that with Blackstone and [the family that founded] Lego. We're also in renewable power. While there's lots of money chasing renewables, we've found some decent investments because it's a growing asset class.

Are there any unusual areas that you can go into given who you are?
A landmark transaction for us this year was in royalties. We have a team that specializes in drug royalties, where we buy future cash flows from phar-

THE CPP FUND
ANNUALIZED % NET NOMINAL RETURN
(FOR FISCAL YEAR ENDED MAR. 31, 2019)



PHOTOGRAPH ARKAN ZAKHAROV

maceuticals developed by companies or research institutes. We bought the royalties off an organization called LifeArc in the U.K. for Keytruda, an anti-cancer drug, for $1.3 billion. They have a lump sum they can put back into research today, and we get what we think will be solid returns over the long term.

Are there areas you avoid?

We don't invest in Africa, Russia, the Middle East or Central Asia. We're only in the big liquid markets where we can build real expertise. It's the same thing with assets—we stay away from areas where we don't think we have a significant edge, like agricultural land.

People talk about the Canadian pension model as something for other countries to emulate. Why is it hard for them to do that?

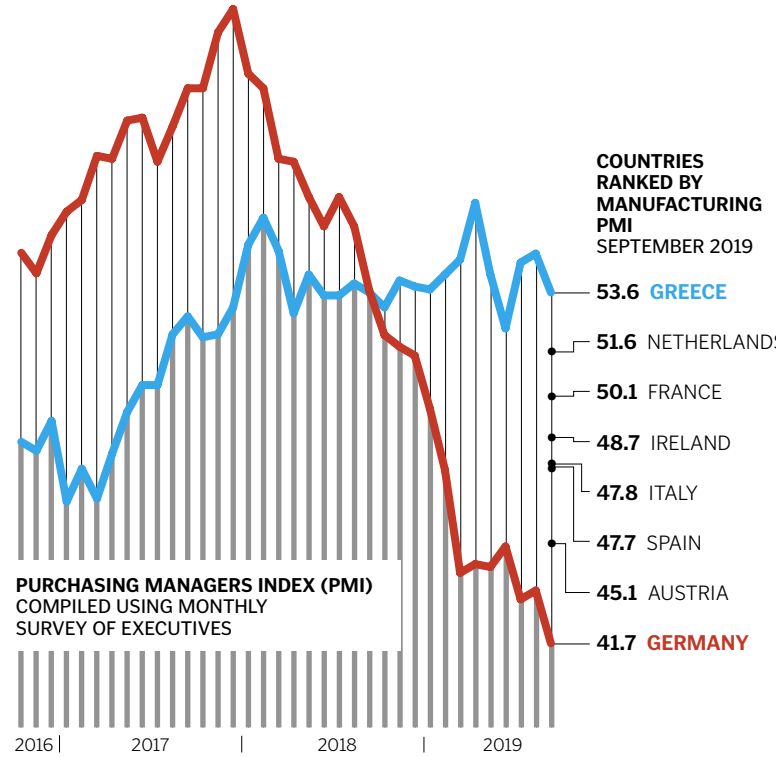
Other pension systems are more complicated. We have a mandate to maximize return without taking undue risk. It's a simple mandate. Other countries might include social and economic purposes. We also have an independent board of directors who are all seasoned professionals, with a variety of backgrounds. Other governance systems have representatives from politics, labour or other interested parties. They may be well meaning, but they all have different objectives. We're protected from the political pressure to do things, like sell when the market is falling. In other countries, you have non-financial people on the board saying, "Oh my God, everything's down. You'd better sell."

What attracted you to this job?

I was at Goldman Sachs in Asia for 22 years, and I'd get calls from headhunters asking if I'd be interested in joining another investment bank. I would tell them that I'd love to do something that helps me put something back into the world. One day someone called and asked, "How would you feel if you could wake up every morning knowing you're doing something worthwhile for 20 million people?" She mentioned CPPIB, and that it is ambitious and global. It seemed like a really purpose-driven organization. I really do wake up every day feeling like I'm doing something worthwhile for 20 million people.

/Bryan Borzykowski

This interview has been condensed and edited



SOURCE IHS MARKIT

DECODER

HOW DID GERMANY AND GREECE TRADE PLACES?

For much of the past decade, Europe's economic parade followed a predictable route. The mighty German manufacturing machine led the way, and then came a pack of so-so continental rivals, with hapless, bumbling Greece bringing up the rear. But not anymore. Suddenly, and shockingly, Greece heads the pack on an important gauge of economic health, while Germany's great export engine sputters and stalls.

The Greek manufacturing sector is now growing faster than that of any other eurozone country, according to purchasing managers' indexes for September. In contrast, German factories have tumbled to the bottom of the heap.

It's a role reversal that would have seemed unthinkable during the eurozone crisis of 2009 to 2015. Back then, German politicians and the country's press took turns berating Greece for its slipshod ways and inept management.

As it turns out, Teutonic efficiency wasn't quite as impressive as the self-righteous rhetoric assumed. The Volkswagen emissions scandal cracked the nation's complacent facade. Declining demand from a slowing China and the ripple effects of Brexit uncertainty slammed German factories. The country's economy will barely grow this year, according to leading German forecasters.

In contrast, Greece is showing welcome signs of recovery. The main Greek stock index soared 36% from January to September. Consumer confidence hit a 19-year high in August. The country's economy expanded 1.9% in 2018 and seems on track for similar growth this year.

To be fair, it's not time to uncork the ouzo just yet. Much of the recent rebound is simply a reflection of how far the Greek economy fell between 2007 and 2014. It contracted 25% during that miserable patch and is only slowly reclaiming the ground it lost. Oxford Economics estimates that the Greek economy won't return to its pre-crisis size until 2033. So let's view its recent surge with a degree of caution.

For now, though, Greece can take comfort from at least one undeniable, satisfying fact: It's growing faster than Germany.

/Ian McGugan

Five portfolio mistakes even savvy investors make

Investing missteps are common, here's how to avoid them

Everyone wants to be a smart investor but even the financially savvy make portfolio mistakes. With recent worries over the inversion of the bond yield curve and a potential recession, the U.S.-China trade war and Brexit's political turmoil, it may be tempting to make panic-based changes to your investments without the required due diligence. Alternatively, underreacting could be costly if you have a lot of assets concentrated in a risky industry sector and need to diversify.

Ultimately, you're responsible for what happens to your money. Start with a proactive approach by ensuring your portfolio is up-to-date and meeting your current goals and timeline. It helps to work with a financial planner to regularly review just how well your investments are performing, tweaking as needed and refreshing with new investment products such as smart beta ETFs (a type of exchange-traded funds) as a mutual fund replacement.

Meanwhile, be mindful of the following missteps that can trip up your long-term plan.

BEING OVEREXPOSED

A frequent error that Barbara Knoblach, an associate of Money Coaches Canada and a fee-only financial planner in Edmonton, observes with experienced investors is being overexposed to the stock market. For instance, if you're planning to retire in 10 years or less, and have a sizable nest egg, you might crunch numbers with a planner on what type of return you need in your portfolio to reach your target spending power in retirement. If you don't need a high return, consider a more conservative investing approach to reduce your risk.

IGNORING YOUR TAX BILL

Another mistake is not considering the long-term tax implications of your investment behaviour. Knoblach says a typical error is letting your registered retirement savings plan (RRSP) grow too much in size and/or waiting until the age of mandatory registered retirement income fund (RRIF) conversion before commencing a drawdown from the RRSPs. If you wait until you have to take money from the RRSPs, you could end up in a very unfavourable tax situation, such as having high taxable income throughout retirement and being clawed back on government benefits. She suggests working with a financial planner who can point out errors.

TOO MUCH CANADA

Since Canadian investments are taxed at a much lower rate than foreign dividends and interest, it's natural for Canadians to support Canada and get the tax break. However, Knoblach warns it's possible to over-invest in the Canadian economy since it's strongly tilted towards the financial and energy sectors, which both tend to be affected strongly in falling markets. So while she says "yes" to investing in Canada, you should also have holdings in U.S. and international equities, particularly in sectors that are underrepresented in the Canadian economy.

NOT ENOUGH SAFETY

"Go through your current portfolio with a fine comb," Knoblach says. "Have you added shaky investments that may not withstand a recession? Divest those now and purchase only high-quality products, such as utilities stocks, which tend to hold up strong even during a recession."

Additionally, she recommends having high-quality fixed-income investments, which should also be diversified. "It also makes sense to throw in some guaranteed investment certificates (GICs), and consider investments that are uncoupled from the stock markets, such as real estate or private equity."

While alternative hard investments, such as commercial buildings, airports or toll roads add diversity, Knoblach warns they also come with their own pitfalls, such as low liquidity, and a positive return isn't guaranteed.

"The best approach to long-term investment success is maintaining a reasonable asset allocation throughout all market conditions," Knoblach says.

BEWARE THE CRYSTAL BALL

Ron Graham often comes across people wanting to do something on the basis of a prediction that may or may not happen. A fee-only financial planner and principal with Edmonton-based Ron Graham and Associates Ltd., Graham says a common mistake right now would be selling everything and going to cash to wait for the market to go down so you can get back in later (for less). Why? Because you can't predict the future.

In 2018, he saw people selling their investments as the market was going down from October to November. Then, in January of this year, it turned around and suddenly went back up, but he says nobody really knew why.

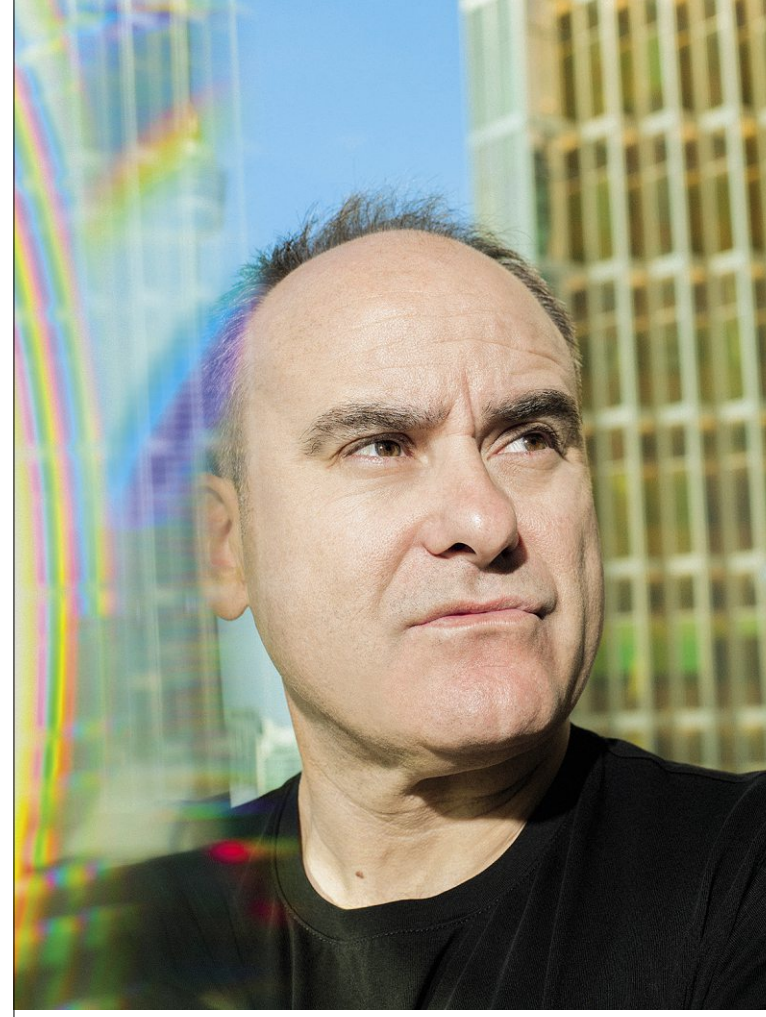
"My advice to clients is to try and ignore the noise in the news media of what's going to happen this week, next month or next year," Graham says. "What's important is not to lose sight of your goals."

Graham believes the role of financial advisors is to create a portfolio to achieve the client's goals over a longer period of time, not on a day-to-day basis.

"If you can understand what your investments are supposed to be doing for you — growing if you're young, paying income if you're in retirement — and those investments are set up to do those things, don't get too hung up on what's happening today," Graham says. "Whether interest rates go up or down, whether we have a recession or not, the market will recover. What matters is that you're making enough money to meet your goals."

John Ruffolo

Founder and former CEO of OMERS Ventures. Vice-chair of the David Suzuki Foundation. Dad. Philanthropist. Cyclist



The best part about growing up as the child of immigrants was the food—the greatest Italian food is food cooked by poor Italians. As a kid I was ashamed—I wanted to have hotdogs and burgers like my Canadian friends. Now I pay a huge amount of money to have that same poor food.

When I was 25 and building the tech business at Arthur Andersen—my first full-time job—I met a lawyer I was really impressed with. I cold-called him, and he didn't return my call for a month. Then he responds by saying, "I sincerely apologize for taking this long to call you back." He took out a snotty-nosed little kid he didn't know for lunch, and I promised myself I would do the same for anybody who asked for that first meeting. But you've got to earn the second one.

The marquee investment I've made is Shopify. That's from a financial perspective, but also because people know that company, not only in Canada but around the world.

I've always had a special attachment to my first investment, Wave Financial, which was bought by H&R Block. People asked, "Why that investment?" And it's because before I worked at OMERS Ventures, I was an accountant and I was like, "Okay, that business I know really, really well."

Jim Balsillie and I created the Council of Canadian Innovators because we believe innovation is the future of Canada. There's no shame in supporting Canadian companies, and this group was designed to help shape public policy to do that.

I would put Canada's talent up against any talent in the entire world. We just need more of it. This talent is there largely because of our strong education system and our great universities.

A number of cuts I see the Ontario Conservatives doing, some of them are good, but some of them are like, "Guys, why are you cutting there?" Education is one you'd better be really careful about, because that creates the greatest value.

There is no debate on whether humans are causing climate change—of course they are. Anyone who doesn't believe that now will never believe it. But we should get past that and look at where the solutions are. This is the issue of our time. Nothing matters unless we deal with the environment.

There is no true prosperity unless it's sustainable. Otherwise, it's a short-term victory—we're going to pay the price dearly.

Technology can play a great role in mitigating some of the effects of climate change, and carbon pricing makes the return on investment that much more compelling—it is absolutely fundamental as a first step to making sure the resources get allocated to the right problems. But technology alone is not going to solve the problem. It's going to require some pretty severe regulations on a global front.

Indigenous peoples are keeping the water and land as pristine as they can because they look at it over the course of hundreds of years. We've really forgotten about that connectivity and how critical the land, the water, the air and the sun are to us.

Cycling is the new golf. There is a big group of folks in business who have all switched to cycling. At Les Domestiques, a cycling charity I belong to, virtually everyone came from very modest means. And we know we were blessed with a lot of lucky breaks, and it's incumbent on us to give it right back. **/Interview by Alex Mlynek**

PHOTOGRAPH DUNCAN FOY

DESIGNED TO IMPRESS FROM EVERY ANGLE.

We set out to design the most sophisticated vehicle in its class. Now that the Mazda CX-9 has been named AJAC's Best Large Utility Vehicle in Canada for the second year in a row, we figure that we've reached our destination. Now it's your turn.

AJAC
AUTOMOBILE JOURNALISTS ASSOCIATION OF CANADA

2019 MAZDA CX-9
BEST LARGE
UTILITY VEHICLE
IN CANADA FOR 2019

mazda