Issue 01

Horizons

Family Office & Investor Magazine

PUBLISHED BY

OPALESQUE

March 2018

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Matthias Knab
Publisher

The Rise and Rise of Family Offices

Welcome to the first issue of Horizons: Family Office & Investor Magazine published by Opalesque. Since 2003 Opalesque has been a leading news and research portal on alternative investments. This first issue of Horizons: Family Office & Investor Magazine is published to 72,000 digital subscribers, and we expect further high demand for this free quality publication.

Horizons will be distributed to all participants of the three yearly Global Family Office Investment Summits in Dubai, Monaco and the US, and to 72,000 digital subscribers.

Creating, managing and administering large amounts of wealth comes with its own set of challenges. Horizons: Family Office & Investor Magazine aims to offer a 360 degree perspective on all relevant themes around family offices, wealth management, investments, operations, and governance.

10,000+ family offices and $7.67 trillion of private wealth

Taking the growth numbers of billionaires as a proxy, the explosion of private wealth is unabated and unprecedented. The Hurun Rich List counted 647 US$-Billionaires in Mainland China, and Forbes lists 565 in the US (up from 42 in 1987). Forbes also said the 233-person increase in their count of global billionaires from 2016 to 2017 was the highest jump in the 31 years it has been compiling this list.

The total net worth of billionaires increased 18% to $7.67 trillion, which is higher than the GDP in more than 60 countries. And the boom isn't over yet. 2016 estimates put the number of family offices globally at over 10,000. Over the next ten to twenty years China alone will produce more single and multi family offices than the rest of the world combined.

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Private Time with Mishal Kanoo

Mishal Hamed Kanoo

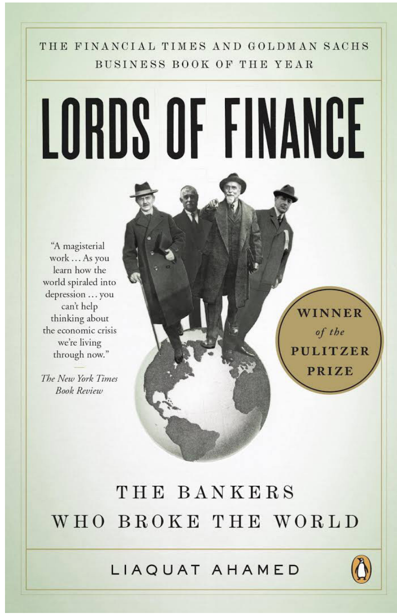
Mishal Hamed Kanoo is a UAE business magnate and currently serves as the Chairman of The Kanoo Group based in UAE and Oman. Kanoo was listed as one of the Top 100 Powerful Arabs 2017, Power 100, Rich List 2009, and The World's Richest Arabs.

Mishal Kanoo is the 4th generation to run the Kanoo family business. Established in Bahrain in 1890, The Kanoo Group's parent company grew from its early trading and shipping enterprise into a diversified conglomerate across the Middle East. From Bahrain, the business spread to Saudi Arabia in the 1930s. In 1967, Kanoo's father came to the UAE to expand the family business. In 2015, Kanoo took over his role as the Chairman of The Kanoo Group.

As visiting lecturer at the American University of Sharjah School of Business Administration, he is an advocate of education and has been integrating corporate philanthropy in one of his missions to foster community-based sustainable developments. He is also an influential figure in the progress of Dubai's art scene and a great lover of books, especially about arts, literature and philosophy genres.

Matthias Knab: Mr. Kanoo, what were some of the books you recently read that left a lasting impression?

Mishal Kanoo: Two books come to my mind, the first one "Lords of Finance: The Bankers Who Broke the World" by Liaquat Ahamed.



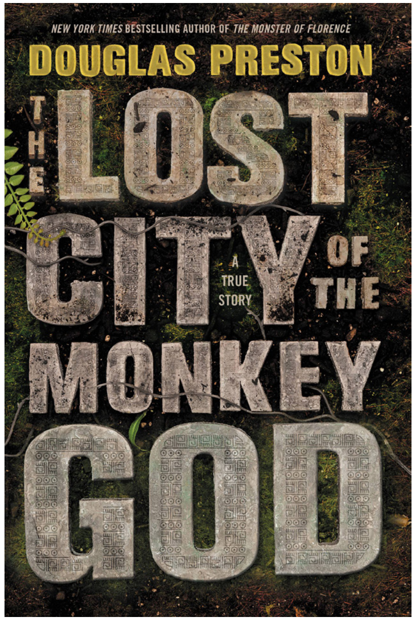
While somehow The Great Depression is in a way part of the collective memory of humanity, when reading this book I found that we still know way too little about this period that brought so much misery to so many people. Lasting for about ten years – 1929 until 1939 – The Great Depression was the worst economic downturn in the history of the industrialized world. By 1933, when the Great Depression reached its lowest point, the unemployment rate reached 25 percent with some 15 million Americans unemployed and nearly half the country's banks failed. While it started in the US, depression-era hardships quickly spilled over to other economies.

Lords of Finance recalls the events leading up to and culminating in the Great Depression as told through the personal histories of the heads of the Central Banks of the world's four major economies at the time: Benjamin Strong Jr. of the New York Federal Reserve, Montagu Norman of the Bank of England, Émile Moreau of the Banque de France, and Hjalmar Schacht of the Reichsbank.

We can see that despite of their best intentions, the central bankers' actions which of course were based on the economic orthodoxy of their time were exacerbating and prolonging the catastrophe that in the end would even lead to World War II.

The second book that I read with great joy was The Lost City of the Monkey God by Douglas Preston.

What is interesting about this book is that at this point in time and age, we've reached to a point where we really think we know everything. But then something happens and comes up which can totally change the lay of the land.



So here, in 2012, the author Douglas Preston joined a team of explorers searching for Ciudad Blanca (The White City), a legendary ruin hidden in the jungle of Honduras also known as "the Lost City of the Monkey God". This team had an advantage that previous searchers had lacked: LIDAR, the advanced laser-imaging technology able to penetrate the dense jungle and eventually leading to the discover of major sites whose scale and architecture indicated a civilization to rival the more famous Maya.

But apart from technology, I would say the even more fascinating dimension of this book deals with the changes that happen in the mindset of humanity where you also realize how greedy people can get.

There were several things about the book that had nothing to do with business but they are all business-related in some way.

For example, we come across the issue of the theft of artifacts. That's a huge global business that is also happening right here in the Middle East in Syria or Iraq. Now, some people may think artifacts are just pieces of some old pottery, but we should all acknowledge and be aware that there is a strong relationship between these artifacts and the people and that they can form part of their cultural identity. But then you always have those people who don't care about anything, they just see the a financial aspect or personal benefit, and so it's just business for them they don't care about a whole nation getting robbed.

And then in the book you see how at some point even politics comes into play where there is a rift between the current president and the new president. None of them had to do with the discovery itself, but you could see how they were tearing each other down because one guy doesn't want the other take the credit. Well, let's think for a moment how many times have you had this in business where someone may want to move on with a great idea and just because it happens in the wrong division with bosses of one divisions fighting with the head of another one, so that great idea is killed. We really all have to be aware not to fall prey to those things.

And then another thing that happened is that the author and others in the scientific group contacted the horrifying disease leishmanias (leish) through sand flies in the forest. This is "neglected tropical disease" that kills 50,000 people a year but it is not really talked about because it's a disease of the poor rather than disease of the rich. Excuse me for saying this, but things like not being able to have sex because you can't have an erection gets so much funding because there's a huge captive audience willing and able to pay for it, but here we deal with something that is affecting people lives and a disease that can literally eat people's face, but this disease doesn't get any attention because it affects the poor and they may not be able to afford the treatment.

Apparently 4 to 12 million people are currently infected in some 98 countries. Risk factors include poverty, malnutrition, deforestation, and urbanization, and about 2 million new cases and between 20 and 50 thousand deaths occur each year. About 200 million people in Asia, Africa, South and Central America, and southern Europe live in areas where the disease is common, so I credit this book for raising awarenes about this neglected and terrible disease.

Matthias Knab: Before we finish, allow me to ask you another personal question.

One thing that struck me was reading a study from 2015 that said more than half of GCC's family businesses are in the midst of the transition from the second to third generation (between 1.2 trillion and 1.3 trillion without considering offshore assets are set to pass from parents to their millennial heir within the next decade), and that just around 15% of those businesses are likely to succeed.

15% success rate is obviously very low. You are now the 4th generation running the Kanoo family business, and your firm has thus already gone already through a number of these generational changes.

What would be your recommendation to increase the odds and have a better chance to secure the longevity and sustainability of a family business?

Mishal Kanoo: Well, I understand that people always want to have a panacea that solves everything, but the reality is of course that every family is different and so you really need to have a focused, custom-made approach. It depends on the type of family, the types of mentality within the family, the type of interaction with the members of the family, all these things have an effect in terms of how a company will succeed or not succeed.

So there is no one single way of resolving everything, there simply isn't. But surely a lot if not everything will depend on the people. Now, actually the more educated – and I don't mean a formal education in terms of having a degree or not – person who is managing the business or heading the family, the more enlightened the person is in terms of really being open to ideas or suggestions and willing to bring in others to be part and parcel of the decision-making process, then there is a better chance of it succeeding for one generation to next.

Matthias Knab: This is very interesting. I know that you worked as an auditor for Arthur Andersen in Dubai before returning to The Kanoo Group as the Deputy Chairman in 1997. I would have thought that this formal training as an auditor would have built you in having a strong foundation and skill set to successfully lead your firm?

Mishal Kanoo: I don't think any business degree plays that role.

I rather think that communication is the real issue. If you look around, how many people and organizations have issues or challenges around that issue of communication. If I am willing to communicate, if I am willing to listen to the other party – and I say listen, not not just hearing them, so meaning to actively listening and understanding what the other person is saying – if I am willing to do all of these things and potentially also willing to give up some of my preconceived notions and thoughts, then again there is a good chance that there will be a success in terms of a successful transition.

If on the other hand it's a very rigid, hierarchical structure, the chances of a successful transition and long term success is really much smaller. Now, the worst ones or the most challenged are those who think that they are benevolent, but they are really draconian, but nobody is willing to tell them that they are draconian or a tyrant. If you scare people, who is willing to come and tell you what you are thinking or doing may be wrong?

If you don't have that open communication where you are willing to accept what other people are saying to you – and again, this is why communication and certain basic skills are so important: ‚No one actually likes to be told you are wrong, but you could say things like "Have you considered this? Here is something we found that we like.... This is another way of looking at it..."

Matthias Knab: This is extremely interesting because what I think you are saying is that soft skills trump those formal degrees and formal education in the end.

Mishal Kanoo: How many people have you seen with a degree when they come to work? And then, everything they have learnt goes out the window, because they think theirs is the only way?

Such an attitude can be very detrimental, no matter at which level you work, but of course the consequences can be much harsher the higher you are in an organization.

So again, each family and every business will be different, but I would say all will benefit by focusing on this skill or culture of having an active, open and engaged communication.

Co-Investments: Why Families Like To Work With Families

Roxanne Davies

As families across the globe get more sophisticated in their investment approach, a new trend is emerging - families are working with each other to invest directly or seed their own funds rather than working with outside teams. Family offices have often had members with financial markets expertise lead their investments, but that has typically been in concert with outside managers and consultants. Now, families are focused on working with each other and finding under the radar investment opportunities that are aligned with their goals.

"Families have always worked together on direct deals, and, invested outside traditional asset management frameworks – but that trend increased following the GFC," says Roxanne Davies, Managing Director at Parly Singapore Pte. Ltd. Parly Singapore is the Asian outgrowth of Parly Company, a family office based in Geneva, Switzerland. "Increasingly, we work with families or entrepreneurs that have specific industry expertise to invest within a specific ecosystem. This may take form of seeding a GP, for example, to invest into the blockchain space, or simply investing in a direct company. Rather than going into a traditional fund manager who is learning with your capital, families are looking for primary sources to invest with, so control, costs and incentives are optimized."

According to Davies, families often prefer to work with other families because they have similar perspectives related to investments. Organizations like Parly, which have a long history of sourcing alternative investments and working with other families, have emerged as key players in the trend.

"I think what people often miss is family office professionals are expert generalists as they need to have a certain level of understanding across geographies, asset class types and industries. They're always looking for new ideas and trends that will materially affect their portfolios. In many cases, however, they fund a great idea as an ethos to promote innovation, families promote innovation, the environment or because it resonates with their own passion – and profit is not the main driver of that decision," Davies says, noting also that technology today allows for a more active kind of investing than has been available to family offices in the past.

So, is it the end for investment funds? Hardly. Funds public and private are likely to remain as a core investment for family offices, but in many ways, the ruminations of active managers are becoming less important than they have in the past. "There is real talent in the investment management industry but as AUM grew - so did the number of subpar managers. Talent then moved to other niches and a new wave of high performers emerged. As a result, family offices need to focus on the way they need to express their risk allocations. They have to balance relationships with their managers against the long-term goals of the portfolio," Davies says. "Technology helps bring a new level of transparency and ability to the families themselves. Which puts that much more pressure on managers to show that they create value."

As families look at managers, smaller funds with a quantifiable edge may continue to capture more of the family office asset flows, in their first few years.

Davies notes that the influx of global institutional money into alternative asset managers over several decades has been very profitable for the managers. Their legal documents allowed them to take more risk, charge higher fees, longer lockups, and, their structures made them less and less liable for that risk. After the GFC - large investors, whether institutions or families, demanded lower fees, customised risk, direct investment opportunities, and/or other specifics, from their managers. While asset managers may believe they need to bring more to the table for lower fees than before – there are still significant 'other' fees most investors don't pay attention to, as they still don't always read the documents or financials. Those fees remain significant performance drags over time. So it is hard to tell if the playing field has truly levelled off – but, it has improved.

Doing direct deals, with families or other, is not simple. Great or even good deals are not easy to source, and, when there is trouble, operational roles or problems are not easy to manage. Problems in portfolios take up a lot of senior management time and resources. The industry will see different cycles and preferences, pro or against the third-party allocation models, but, in the end, a hybrid model aligning interests and incentives, alongside talent, remains the optimal model. Families need to structure their portfolios to keep what is core, internally managed/controlled, and, seek strong outside partners that can help execute the rest of their requisite risk allocations.

B. McCann

Roxanne Davies is the Managing Partner of a global investment holding company, set up to manage direct investments and operational businesses for four global family offices. A family office veteran of near 30 years, she has managed operational businesses and multi-asset investment portfolios around the world, including the US, Russia, Brazil, Thailand, Singapore and Switzerland. Roxanne held positions such as Head of Private Equity and Head of High Net Worth Clients in banks such as HSBC and Union Bancaire Privee respectively, with deep expertise and focus in alternative asset management. She has held Board memberships on both listed and private companies.

Roxanne has also been on the fund raising boards of the Singapore Red Cross, SPCA, Human Rights Watch and several private charitable foundations. She has been a speaker and panellist at several industry conferences such as Skybridge's SALT and Campden Wealth amongst others. She is Swiss, born in Manhattan, NYC and holds a Masters in Finance as well as a Masters in Business Administration (HEC-University of Geneva).

Research: The Institutionalization of Family Firms from Asia-Pacific to the Middle East

As family offices grow in Asia, issues such as institutionalization and succession planning are becoming more important in the region, according to recent findings from INSEAD. INSEAD surveyed 123 families throughout the Asia-Pacific and the Middle East to find out how they are maturing. The findings are the first in what will be a global survey of family offices focused on institutionalization.

"Over 30 percent of the Middle East and Asia's family offices will go through a generational change in the next five years and so it was important for us to understand how they are dealing with the transition," explains Claudia Zeisberger, Senior Affiliate Professor of Decision Sciences, Entrepreneurship & Family Enterprise at INSEAD.

The survey comes out of work Zeisberger and researchers at INSEAD started in 2015. During that time, INSEAD wanted to develop a global family office barometer. Through the questioning, researchers realized it would be important to focus in on issues around governance, institutionalization and working with outside partners. They used those insights to craft the questions in this survey and have come away with notable findings.

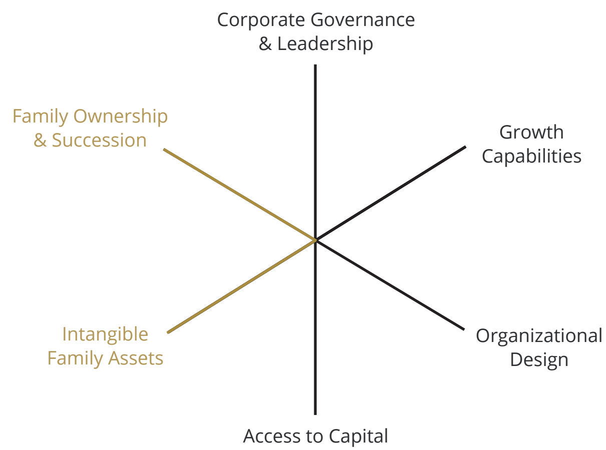
Champions vs. ascendants

INSEAD's research breaks families into two groups - the champions and the ascendants. The champions are family offices that have existed for more than four generations and operate similarly to large corporations. The ascendents, as the name likely suggests, are working their way up the maturity curve. These families are in generations one to three and need to work through governance issues.

"What we've seen in the research is that the transition from generation three to generation four is absolutely critical when it comes to determining future success," Zeisberger says. "Families have to think through what the business is going to look like into the future and who is going to lead the way. By the fourth generation, we also expect to see strong governance in place. The key for our champions is that they are likely to have independent board members and also key performance indicators (KPIs) that are rigorously tested. This ensures that there is a certain level of professionalization throughout the organization."

The exhibit below outlines the aspects of institutionalization that are important for families to get their arms around.

EXHIBIT 1: ***Survey Framework: The Attributes of Institutionalization***



***Family Attributes* – Measure the sophistication of engagement between the family and the business and the family's unique strengths.**

***Business Attributes* – Measure the strength of a family firm's operating model and its ability to sustain competitive advantage.**

1. Family Ownership & Succession: Assesses how the family engages with the firm as owners and leaders, and whether the family is aligned regarding the future of the firm.

2. Intangible Family Assets: Assesses the importance and strength of family values, connections and heritage in the day-to-day operations of the family firm.

3. Corporate Governance & Leadership: Assesses the composition and capabilities of the bodies and individuals that drive decision-making at the family firm.

4. Growth Capabilities: Assesses the family firm's ability to identify and execute organic and inorganic growth strategies in the firm's specific geopolitical context.

5. Organizational Design: Assesses the existence and effectiveness of the systems and formal policies used to govern the dayto-day operating activity of the business.

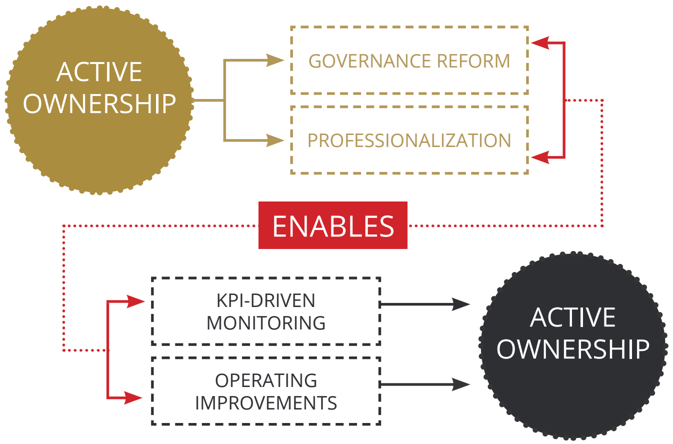
6. Access to Capital: Assesses the family firm's ability to raise debt and equity capital to fund current and future business operations.

According to Zeisberger, very few of the ascendant families will exhibit many of these factors. They often lack independent boards or KPIs and have yet to think through an organizational design that includes succession planning.

Growing up

For families in earlier stages of maturity, Zeisberger suggests that working with an objective outside partner, like a private equity firm, can put professionalization in the hands of experienced professionals and avoid some common pitfalls. "It's human nature that we only make changes when we have to," she says. "If you decide to partner with an outside firm, they can assess the business honestly and chart a way forward."

EXHIBIT 3: *Value Creation in Private Equity*



In addition to professionalization, private equity can help families source management if the upcoming generation isn't interested in the day to day operations of running the family business. "We see this a lot, especially with China's one-child policy. The children recognize that there is a profitable family business and they will be expected to take it over but their heart is really interested in something else. Finding an experienced management team can solve for some of those tensions," Zeisberger says.

Still, it is important for families to enter these partnerships with their eyes open, Zeisberger warns. Private equity firms tend to have a longer time horizon than many outside investors but it's not an indefinite one. Private equity managers are obligated to return money to their investors within a pre-defined period, which may mean some tension if the family business undergoes change at a faster rate than family members expect.

The first set of findings, highlighting responses from families in the Asia-Pacific and the Middle East is available here. The next set of findings in INSEAD's global survey will look at families in Latin America.

B. McCann

With The ImPact, Justin Rockefeller Defines Impact Investing For The Modern Era

Justin Rockefeller

In 2013, when Justin Rockefeller started The ImPact, a non-profit focused on impact investing, he wanted to build on the impact investing work he started doing at the Rockefeller Brothers Fund. With ImPact, his goal was to bring together other high profile families and get them to commit to measurable actions that would increase the value of their investments. He calls it 'values aligned investing'.

"One of the hard things about impact investing is that business owners can get understandably defensive about the label impact," Rockefeller tells Horizons. "People feel like they have built something that created jobs and contributed to the community, and to them, that's impact -- and it is. So we try to get more nuanced than that when we work with families. What it really comes down to is measuring both the positive and negative impacts of a given business and deciding how those impacts align with the values investors want to reflect in their portfolios."

The nuance is important. When bringing several families together into one organization, it can be challenging to align interests. Rockefeller notes that this is also true for wealth managers that are dealing with multiple clients. "The data are clear that the next generation is very focused on values-aligned investing, but it can be difficult to get clear on what that means and how to measure it," he says. "Skeptics are quick to point out that there is no perfect unit of impact like there is the U.S. dollar. But, there is no perfect unit of impact because there are many types of impacts. If you're willing to do the work on what those impacts are, you can measure."

The Five Core Components of Impact Investing

For Rockefeller, impact investing has five core components: geography; asset class; sector; return profile and impact strategy. As with any investment strategy - geography, asset class, sector and return profile help investors understand what the specific opportunity is and where to put it in a portfolio. The impact strategy helps investors understand what the additional return might be in terms of societal benefit.

Understanding impact strategy drives the investing process for members of The ImPact. Impact strategy is important because it can help investors identify investments that are aligned with specific goals like gender equality or environmental sustainability. The impact strategy also provides a roadmap for how an investment should be measured. Screening with a gender lens, for example, will likely yield different companies than screening for environmental sustainability or other impacts. Once each of these factors is identified, investors can align their portfolios accordingly and also commit to specific actions that are in alignment with their values and their portfolios. The idea is to create a well-defined process around values aligned investing in order to make it more efficient and trackable for the families that belong to The ImPact and for anyone who wants to use a similar framework in their portfolio. "We've made a lot of resources available for free on our website to help people understand the space and our approach," Rockefeller adds. "Even if someone isn't working with us directly, we want to help people understand impact investing if they are looking for a way to get involved."

Impact Investing can do better with technology

At The ImPact, Rockefeller and the team pull all of their investment data together using Addepar, an investment technology platform. Rockefeller is the Global Director of Family Offices and Foundations at Addepar and the company is a pro bono technology partner of The ImPact.

Rockefeller says that growth of financial technology in the aftermath of the Great Financial Crisis is helping impact investing take off by enabling investors to track and gather a broader range of data than ever before. Indeed, Rockefeller has seen FinTech as a segment grow first hand, prior to Addepar and The ImPact, Rockefeller was a venture investor with Richmond Global.

"A lot of investors, especially Millennials, sense that, with technology, business can behave better than it did in the past," Rockefeller says. "There is a recognition that we need to tackle some very large problems and it's going to take the scale of the capital markets to make that happen. Governments and philanthropies can't do it alone. The next generation sees a way forward where business is profitable but also helps to address the broader issues we face as a society."

B. McCann

Justin Aldrich Rockefeller is an American impact investor and financial technology professional. He is the youngest son of former West Virginia senator, Jay Rockefeller, and his wife, Sharon Percy Rockefeller. Rockefeller's maternal grandfather was former U.S. Senator Charles H. Percy, and his paternal grandparents were Blanchette Ferry Hooker and John D. Rockefeller III, the eldest son of philanthropists John D. Rockefeller Jr. and Abby Aldrich Rockefeller.

Justin Rockefeller is the Global Director of Family Offices and Foundations at Addepar, a financial technology company. He also cofounded and chairs the board of directors of The ImPact, a membership network of family enterprises (family offices, foundations, and businesses) that are committed to making investments with measurable social impact.

Patrick Reynolds, the Unlikely Anti-Smoking Activist

Patrick Reynolds

Patrick Reynolds, son of R.J. Reynolds Jr., part of the historic R.J. Reynolds tobacco family, is on a mission to rid the world of smoking. He's been an anti-smoking activist since the 1980s when he surprised the world testifying against Big Tobacco before Congress. Now he's working to build an endowment for his foundation - The Foundation For a Smoke-Free America and launch a goodwill tour around the world to help other countries adopt measures to combat smoking.

"Tobacco took my father away from me, and that had a very profound effect on my life," Reynolds tells Horizons. "His death contributed to my decision to speak out later against the industry that made my family wealthy. I realized I had a strong platform to make a difference on the tobacco issue, and that I was in a position to save lives."

When Reynolds gave his testimony before Congress in 1986, smoking was more prevalent in society than it is today. In the years which followed, Reynolds campaigned in many states in favor of early smoking bans, and advocated for laws limiting youth access to cigarettes, for state and national tobacco tax increases, and for using some of the new tobacco revenues to fund smoking prevention and cessation campaigns. "When I began, we were just starting to understand how damaging second-hand smoke is. We were up against people who didn't believe the science or just didn't want change," Reynolds says. "Our early successes were all with city governments, but after just a few years, state legislatures began passing statewide smoking bans."

Reynolds pioneered a playbook that includes a mix of policy, consciousness raising and muckraking to beat back Big Tobacco's empire. Taken together, the efforts of Reynolds and other activists have cut smoking in the US by 50%. Now, after 30-years of focusing on the US, Reynolds wants to take his foundation global. He's launching a goodwill tour that will start in Dubai, with the goal of raising awareness about smoking in geographies where it is still widely accepted.

"We know from our work in the US that these policies work. They are effective in helping people quit and keeping kids from starting," Reynolds says. "But, there are still many places where we aren't having this conversation. And internationally, there is potentially more that we can do. In Australia for example, they have removed all the fancy packaging and instead include a picture of diseased lungs. Courts have ruled that violates the first amendment in the US, but there is no reason other foreign jurisdictions couldn't take up their own packaging restrictions."

Part of the goodwill tour will include speaking and networking with families and other high net worth individuals who may want to be involved with anti-smoking advocacy. Reynolds says that he thinks his unique platform as someone who is part of the

R.J. Reynolds family, helps him reach people and take what he says as credible. Reynolds is also hoping to find like-minded families that want to work with his foundation as part of their philanthropic efforts. "I'm going to do this for the rest of my life," he says. "I think we can eradicate smoking in my life-time."

B. McCann

TobaccoFree.org is an online resource for anti-smoking advocacy supported by Patrick Reynolds. Vistors can learn more about his efforts, his goodwill tour and how to help The Foundation For A Smoke-Free America.

In addition to his anti-smoking work, Reynolds is also an advocate for Operation Santa, a goodwill project of the US Postal Service. With Operation Santa, individuals can take the letters low-income children write to Santa and send gifts to those who might not otherwise get them. Project Elf also works with parents who have made requests for holiday gift assistance.

Reynolds supports a website called "Be An Elf" designed to raise awareness of the Operation Santa project and helps donors match with families during the holiday season.

Q&A With PHF Capital's Peter Fletcher

Peter Fletcher

Peter Fletcher is a veteran of alternative investing. After decades of managing money, seeding hedge funds and being 100% in alternatives, now he's working with other family offices to help them manage their legacies and identify new opportunities. Below is a brief Q&A with Fletcher from the Cayman Alternative Investment Summit (CAIS).

Opalesque: You are well known as a hedge fund investor and seeder. But you haven't been as positive on hedge funds lately, where do you see the industry headed?

PF: Hedge funds aren't an industry to me.
I remember when it used to be a handful of people meeting up and working on ideas. The number of hedge funds has grown, surely, but they aren't as fun anymore. The alignment of interest with investors isn't there. No one had a problem paying 2/20 when the returns were there, but 2/20 for 7 percent is too much. I'm looking at alternatives to alternatives now. Globally, for example, family offices are doing more direct equity transactions among themselves, which I think is interesting.

Opalesque: As a consultant to family offices what are you working with them on? What are the key issues families are dealing with today?

PF: The biggest issue families face is transition and wealth preservation between generations. Families have a hard time moving from one generation to the next. That's why you see so many of them go to the third generation and then quit. People are different generation to generation and they have different goals. Preserving wealth for each generation is difficult.

Opalesque: How are family offices changing?

PF: More of them are developing a social vision and I think that's a positive sign. I've started working with foundations and families that are setting up foundations. There's a shift within the younger generations, they want to look at impact investing - they want to create positive outcomes. So, that's going to change how people think about their investments and what they do.

Opalesque: Let's talk about investments. You're a thematic investor. What themes have your attention right now?

PF: Pandemics. If you start reading the reports on what's happening with the flu right now, or with superbugs - that can't be cured with antibiotics, there is a lot to think about there. The way we think about healthcare will have to change if we want to reckon with any of this.

I'm also looking at how we think about money. If you look at how technology is poised to change industry, it's innately deflationary. So we have to think about money differently in that context.

Another thing I'm looking at is cardboard.

Opalesque: Cardboard?

PF: Yes. If you look at how we're shopping now, it's all online. Everything comes in cardboard. So it's been interesting to learn more about who makes it, how it's used, there are opportunities there. Sometimes a theme can be big like pandemics, sometimes it's smaller like everything showing up at your house in a cardboard box.

B. McCann

Farming Edible Bugs with Robotics and AI To Alleviate Global Food Insecurity

Mohammed Ashour

Would you make bugs a regular source of protein? Edible insects are a growing part of commercial food production around the globe. According to the United Nations Food and Agricultural Organization (UN FAO), **insects are consumed in 80% of the countries around the world.** Including insects as a dietary protein source is also catching on in the West but remains outside the mainstream. Aspire Food Group is working to change that by leveraging new automation technology to make edible insects a key part of the future of agriculture.

Aspire commercially produces food-grade crickets and palm weevils. Aspire's US-based cricket facility is the first fully-automated farm in the world that exclusively produces edible insects. The company blends proprietary automation technology with artificial intelligence to make the commercial production of crickets and palm weevils sustainable and viable as large-scale protein sources.

Aspire's palm weevil operations, which are based in Ghana, emerged out of research done by the firm's co-founder and COO Gabriel Mott during a trip to Southern Thailand. Palm weevil farms are common in Southern Thailand, but operate at a smaller scale. In Ghana, locals were known to harvest palm weevils in the wild, but there was an opportunity to expand operations there using precision farming and techniques gleaned from the palm weevil farms in Thailand. The automation embedded in Aspire's precision farming keeps costs low and also ensures a safer product than palm weevils found in the wild. Aspire co-founder and CEO Mohammed Ashour says automation is a key to the success of precision farming.

"No business today can meaningfully exist in the next decade without a clear digitization strategy and a whole-hearted embrace of technology," he tells Horizons. "I believe the greatest investment opportunities in the next decade will focus on companies solving some of the world's most perplexing challenges using advanced technologies. I am especially excited about the role of technology in food and agriculture."

For Ashour, the use of automation means being able to set up new farms quickly and achieving return goals without sacrificing product quality. Despite the unusual source material, Ashour points out that his operations could be a use case for future sustainable farming projects. "Insects are the cleanest source of animal protein in the world, requiring far less land, water, and energy than any other conventional form of livestock," he says.

This type of low overhead farming is important as many parts of the world struggle with increased food demand and a decreasing supply of arable land. “Simply put, our world desperately needs protein sources that can scale responsibly, inexpensively, and with limited environmental impact,” Ashour says. “Insect protein is positioned to address this need better than any other animal protein source in the world today.”

Ashour is talking his book a bit, but he’s also quick to point out Western consumers are the only ones who are squeamish about using a little cricket flour to make their bread. Aspire’s operations have had success at scale in part because edible insects are a common food source almost everywhere else. “After all, insects are the most ancient protein source. Humanity has consumed them since the dawn of mankind,” he contends - the rest of us will have to get with the program.

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Mohammed Ashour is a leading voice in social enterprise and the co-founder and CEO of Aspire, a company that develops some of the most advanced insect farming technology in the world. Aspire targets markets that utilize insects for applications in nutrition, biomedicine and agrochemicals with a vision to alleviate global food insecurity.

Aspire was launched in 2013 after Mohammed led a team of five students from McGill University to defeat over 10,000 teams from around the world to win the prestigious US$1 million Hult Prize presented by President Bill Clinton.

When Ashould was looking around for ideas to compete for the Hult Prize, a physician friend told him about a patient who regularly ate chocolate-covered ants. “I couldn’t shake the idea and just to humor myself I looked into it, and it was mind-blowing how nutritional and sustainable they are, and there wasn’t a formal supply chain in the world.” With Ashour’s Aspire Food Group, now there is.

Company Portrait: Rotella Capital Management, a Leader in Quantitative Research

Jagdeesh Prakasam

Ian Ram

Rotella Capital Management is a veteran systematic trading firm started in 1995 by Robert Rotella. Since then, the firm has been on the forefront of quantitative research - finding ways to sort through technology and use it to its greatest value. Rotella has operated both as a family office and a manager of outside money. As the firm looks toward the future, COO Ian Ram and Co-CIO Jagdeesh Prakasam say there is value in harnessing the new power of artificial intelligence for systematic investing, but the key will be identifying the best uses cases rather than expecting it to be a silver bullet.

The history.

Robert Rotella started his trading career in 1982 and began trading independently in 1985. He began trading the Polaris program in 1990 with Commodities Corporation, one of the most successful incubators of traders in the industry. Louis Bacon, Paul Tudor Jones, and Bruce Kovner all started at Commodities Corporation. Now, more than two decades later, Polaris remains Rotella's flagship program with a 27-year track record of consistent performance.

Rotella places a high premium on research and pins the success of its trading programs on a research process that is in-depth and rigorous. "We have always been a research-oriented shop," says Ian Ram, Chief Operating Officer at Rotella Capital Management. "As a family office we invest a lot of our own money into our programs and we are constantly working on our research process to ensure that we are creating value."

The Polaris Program is based on quantitative research to identify pricing trends in global markets. Polaris uses a multi-model, multi-timeframe approach to invest in global commodity, interest rate, equity index and foreign exchange markets. The program looks at 30 years worth of data to identify pricing anomalies that are repeated over different time horizons. A typical holding period can last from 5 days to one year. The investment team at Rotella is constantly refining the dataset and technical models that support Polaris to ensure trading signal accuracy.

A new regime

The double-edged sword of constant research is getting so good at predicting success that you also know immediately when you might fail. Shortly after the financial crisis, Rotella's investment team concluded that equities were likely to outperform.

Historically, managed futures have served as a strong diversifier for a traditional stocks and bonds portfolio during normal market regimes. But, Rotella's research predicted that an economic recovery spurred on by quantitative easing would make it difficult for managed futures funds to do well.

Rotella took the opportunity to retrench. The firm told outside investors in Polaris that while the trading program was going to continue, Rotella planned to focus most of its effort on research in order to understand the new normal. "We wanted to focus a lot of our research on the equities space," Prakasam explained. "We started to look more at position sizing and how market patterns were likely to shift."

From 2008 onward, Rotella's core focus was quantitative research. The firm expanded its office in Washington State, near Microsoft and Amazon, taking advantage of the local high-tech workforce. Rotella also seeded other hedge funds and CTAs during this time, trying to get a sense of what worked and what didn't. Most of it didn't. "What we found was that the value they were creating wasn't more than what we were already doing in-house, so we eventually exited those investments," says Ram.

Rotella's research process returned some interesting insights. The investment team learned how the new market regime could impact position sizing. What's more, analysts started to find new ways of leveraging artificial intelligence to extract value.

"We had looked at using neural networks to figure out pricing in the early 2000s, but we didn't think using neural nets for that purpose at that time was very profitable," Prakasam says. "What tends to happen with neural nets is that they aren't as transparent as a technical model. So if things are going well everyone is going to be happy with it, but if there's a drawdown we may not be able to explain it and that's a problem."

In order to deal with the 'black box' nature of some aspects of machine learning, Rotella has started defining narrow and specific use cases for AI within their research process. "AI, unfortunately, has become a buzzword," says Prakasam. "We don't think it makes sense to use AI for everything. Instead, we look at the problem we are trying to solve and determine the best use of machine learning to create value and help us with the problem at hand."

According to Prakasam, one of the ways they've been able to leverage machine learning is to help the investment committee handle unstructured investment data. As the amount of information about a given company grows through online content, social media and traditional means like earnings disclosures attempting to control the firehose is impossible for human analysts. Instead, the research team at Rotella have created an almost symbiotic relationship with their machines. For any company in the S&P 500, Rotella's analytics platform is learning to make bull and bear calls from a combination of new and old information. Whereas before analysts may have read a piece of news or an earnings transcript on a company and tagged it as bullish or bearish manually, the goal is to train the machines to be able to do that for each piece of data for each company in the index. Previously hand tagged information provides the training set for the machines. From there, the machine can analyze new data and the investment team oversees the process - checking the calls the machines come back with for accuracy.

"We don't have enough analysts in the world to analyze all of the stocks in the world and come up with a sentiment, but you can do this with AI. The ability to understand a lot of information is the edge," Prakasam contends.

New Beginnings

Since 2008, Rotella has been busy refining its edge and adding to Polaris' track record. In 2017 the firm made Polaris available in a UCITS structure. "This is a big step for us. We are proud to be able to show that we have been assessed rigorously by regulators and we have also secured seed funding for that effort," Ram says.

The research also yielded a new investment strategy - Eta Carinae. The investment team launched Eta Carinae with internal capital in

December of 2008. The strategy differs from Polaris in that it is more focused on equities, but retains Rotella's core expertise of identifying pricing movements across a global universe of securities. The models are a blend of ideas looking to capture trend, breakout and mean reversion behavior in the short and medium term time horizon.

"We just launched Eta Carinae as a fund last year and the reaction has been positive so far," says Ram. "We can show the track record from 2008 to now and we think it shows that we stand by our ideas to trade our programs with our own money through the family office first."

Eta Carinae is traded 24 hours a day, taking advantage of opportunities across time zones.

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