Issue 03

Horizons

Family Office
& Investor Magazine

PUBLISHED BY
OPALESQUE

March 2019

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Matthias Knab
Publisher

Welcome to Issue 3 of Horizons: Family Office & Investor Magazine with “Generations” as a main theme.

We are starting with a portrait of Frederick Chavalit Tsao, one of Asia’s leading business tycoons, who shares some provocative insights and questions on the **mortality and sustainability of family businesses,** the self-image of families (and why “family stories” can be a trap) and the downside of “Prudence” as a core business and family value.

We are also presenting you a number of case studies why and how family offices should get back control of asset related data by digitizing your family office. Dominik von Eynern has some real life recommendations how to create and live a Family Constitution, and Peter Kellner talks about how he with his all-star team managed to combine two of the most critical megatrends of the 21st Century : Integrated Sustainable Investing & Artificial Intelligence into a multi-asset strategy which vastly outperformed.

We also speak with Peter Fletcher who for the first time in 23 years is giving an interview about the renowned Club b, which is the World’s original family office network of now 700 families globally. We also look at important trends such as the ongoing professionalisation of family offices and why and how family offices are upgrading their C-Level leadership. And finally, we are looking at the family office’s weakest links in cybersecurity and how Jim Hedges brings tech and hedge fund styles to art investing.

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P.S. Please take a look at our new column “Family Office Anonymous” (page 12) - you are invited to get in touch if you’d like to share your thoughts, reflections and experiences with a greater audience while making sure your identity is protected.

Private Time with Frederick Chavalit Tsao

Frederick Chavalit Tsao

Frederick Chavalit Tsao, one of Asia's leading business tycoons, shares some provocative insights and questions on the **mortality and sustainability of family businesses**, the self-image of families (and why "family stories" can be a trap) and the downside of "Prudence" as a core business and family value.

Mr. Frederick Chavalit Tsao is the fourth generation to start his maritime career when he joined his family business at twenty years old. He ventured out on his own whilst serving IMC Group of companies, which roots can be traced to 1906. He started several companies, listed and then delisted two companies, and turned around a bankrupt Thai national shipping line successfully. At 37, he took over the helm from his father, Tan Sri Frank Tsao. Under his stewardship, he restructured the traditional shipping company into a global enterprise with diverse business interests in more than 17 countries.

In 1995, Mr Tsao created the East West Cultural Development Centre, a non-profit organisation aimed at building more harmonious relationships in a rapidly globalised world.

Mr Tsao is a Board Member of Family Business Network – International and Family Business Foundation. He founded Family Business Network Asia, a regional chapter of Family Business Network International to promote sustainable family business. He believes that family business can make a difference to the evolution of business in the new role of business in society.

Mr Tsao has served on numerous Maritime and non-profit organizations. Notably, he served for 7 years as Chairman of Intercargo, an international dry cargo shipping organization and created a number of platforms to promote collaboration within the Maritime industry, with regulators and related non-profit organizations. He remains an Executive Committee Member of Intercargo and is also a Director of the China Ship-owners Mutual Assurance Society and a Member of the Bureau Veritas Asia & Australia Committee, and the American Bureau of Shipping.

Mr Tsao graduated from the University of Michigan with a Master of Science in Engineering (Industrial and Operations Engineering) and a Bachelor of Science degree in Engineering (Naval Architecture and Marine Engineering).

Frederick Chavalit Tsao: You know, I'm very involved with the family business community, and if you allow me to get to the heart of things, I do think there is a lack of thought leadership. People tend to be going in circles. And so rather than sharing some other family story I suggest we ask some questions that can provoke new thoughts and insights.

The statistics on family business survival post-succession don't look good. According to the Family Business Institute, only about 30% of family-owned businesses survive into the second generation, 12% are still viable into the third generation, and only about 3% of all family businesses operate into the fourth generation or beyond. I think these numbers are actually deteriorating and that the mortality rate is even higher now. I suggest that we talk a bit today why the mortality rate of family businesses is so high?

The second theme I want to talk about with you is self-image or self-concept of a family business. What is a family business? What do we really want? Why do you want to do to this?

And then thirdly, what is family business sustainability? Everybody says they want to sustain, but what do they mean by sustain? Why do you want to sustain? Why do you want your business to be around?

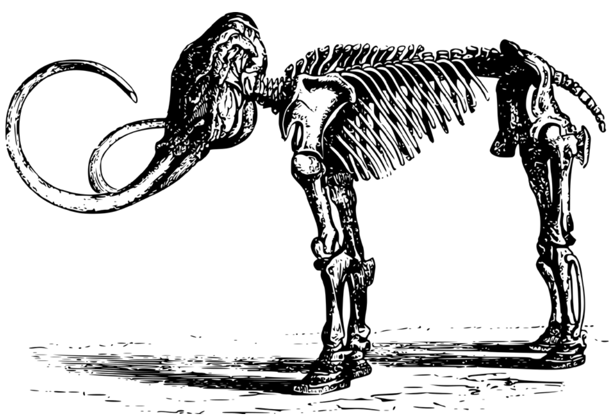
First of all, **any family business is a hard-planned, complex system.** To manage a system, you need more complex management techniques and systems and structure to make it work. But let's also look at what does the system actually achieve? You can also describe the system as a business or operating system of wealth creation. And generally, the family wants to maintain a status quo where the business generates the resources and financial means for the family. But, as we had seen, the chances are like 9:1 that this system won't last over three generations. Here we have to come back again to sustainability where you are faced with the situation that no system can sustain itself over a longer term if it cannot evolve and maintain relevance.

Matthias Knab: I agree. The world constantly changes, and what has been a business three generations back needs to be a completely different business three generations later.

Frederick Chavalit Tsao: Correct, and what's most important here is that this family business must be relevant at all times to the people and all stakeholders of the broader system. It must continue to add value to mankind. When you stop adding value or even if you stop increasing the speed of adding value, you will fall behind, the relevance of the business will reduce over time and at some point you'll be gone.

I would add here that the business also has to add relevance to the family. Over time, the family stakeholders are changing as well and in fact the family must equally evolve. "I want to lead a good life" isn't going to be enough. And so, like the business, if the family isn't evolving or isn't evolving enough, it cannot sustain. This means that we either thrive or we disappear. And the broader perspective is that we need to make sure that the environment we are all in remains conducive to growth and in balance.

Just look at the cycles in nature. Throughout time there have been disruptions like the extinction of the dinosaurs or the ice ages or even human action where the living conditions for many species got out of balance, resulting in the loss of many life forms. We must therefore also make sure that our environments are flourishing because then everybody can potentially thrive.



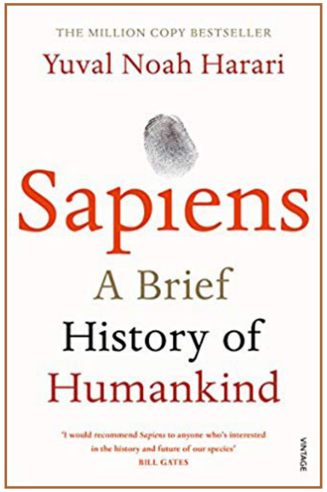
These thoughts – to be constantly adding value, ideally at an increasing pace, to society and to sustain the whole ecosystem – may seem easy and obvious, but the challenge is to make them a reality in our personal life, our family and our business. To express this a bit more bluntly, if the society is going to hell, do you think your business is going to flourish? It won't, and this is why taking good care of our system must be more than lip-service. We cannot continue to just mindlessly rob and rape the earth but gain a deeper and renewed understanding of sustainability and holism of the system, and start thinking about our family business in terms of relevance, purpose, and contribution.

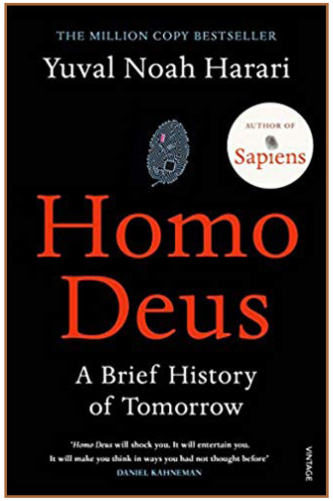
I believe that something needs a purpose so that it can become a resource. Wealth is not wealth if it doesn't have a clear purpose. If you give a monkey a diamond, it has no meaning to the monkey, but a banana will have.

A bit earlier I said that a family business is a hard-planned, complex system. However, people are usually not aware that most businesses still work on outdated and obsolete concepts and principles which in fact are mostly going back to the agrarian era. Let me explain.

The industrial age started a bit over 200 years ago and now we have reached the post-information era already. We are now working on life science, repairing and programming DNA and working on immortality. We are moving into the quantum level, so into an entire new reality.

I know that in your Private Time column you sometimes like to talk about books, so in this context let me point to Yuval Noah Harari books *Sapiens: A Brief History of Humankind and Homo Deus: A Brief History of Tomorrow* which I like a lot as I also try to understand as much as possible about the future and where we as human beings are heading.





So, you can see that big-time changes have already happened and will continue to happen. However, I fear that most family businesses haven't really adapted to the new paradigms. The concept in most family businesses is that at some point the children take over the business and continue the parents' work, and then hopefully the business grows bigger in line with the family growing bigger. Now, that idea is okay as a landlord, but not okay outside of the agrarian system. We just cannot assume that things and businesses will so easily sustain themselves. Such assumptions around a family business are actually very old, very traditional ideas. What we need though is to awaken to the new paradigm and how to operate in those, and meticulously analyze the environment we're in. Failing to do so is one of the reasons family businesses die.

*I'll give you another reason why this awakening is so important and also so difficult at the same time. Most businesses have a set of outspoken or implicit core values. My guess is that something called **"prudence"** is part of that set of core values – no matter if it's a Chinese, American, or European business, everybody seems to value prudence. Now, let's take a moment to examine where that concept of prudence is actually coming from?*

More often than not, it comes from the founder of the company projecting his fear or her fear in the name of love to the descendants. But what does it really mean? I think it also means *"I believe you're not as good as me. I believe that if you do not do something stupid, you will be okay. So, don't do something stupid, be prudent and don't spend too much money. Because if you spend a lot, you're going to lose it all."*

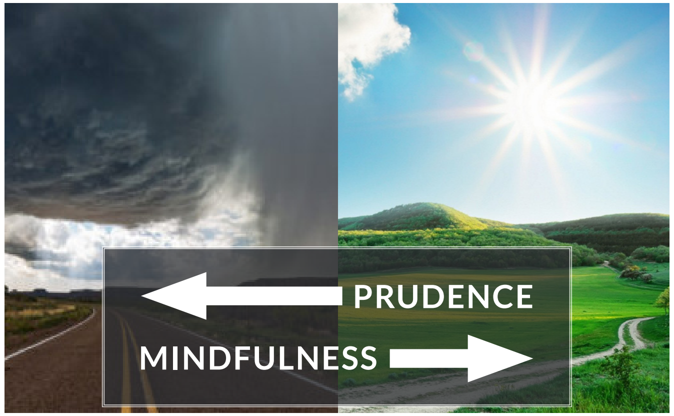
What you then can observe is that the richer a family becomes over the generations, the more they also want to be frugal. *"I need to be frugal, focus on good quality and economical value for money."* And as they are constantly taught to be prudent, they don't take sufficient risk. However, the person who started the business, were they prudent? No, probably not, because every time you start a new business, there's high risk.

Being prudent then also means, *"Please, don't change easily"*. And yet the reality of the environment is changing all the time, while, on the other hand, often after the third generation the owners of a family business don't want to take risk because they are afraid of it. They are afraid that they will be the generation which is going to lose it all. And then, of course, the tragedy is that with this mindset they are actually putting themselves at most risk. The drive to conserve can suffocate everything in the end.

Matthias Knab: So what you are saying is that the millennia old concept of prudence in business can also lead to limits and potentially a threat to the much desired sustainability of a family business. I would think that this is quite a dilemma then for people and wonder what to do you suggest instead? How should families and family businesses address these challenges?

Frederick Chavalit Tsao: Remember I said that a family business is a hard-planned, complex system? I think one of the keys to true sustainability is to really be aware on how that system operates and becoming aware of its limitations and implementing the necessary changes.

For example, I will **replace prudence with mindfulness.** Mindfulness, as I understand it, will include risk management and also opportunity management. *No one wants to be the generation that loses wealth or a business, but doing nothing is high risk as well. The generation that doesn't do anything also won't feel guilty because they think they didn't do something stupid, but the reality is that many generations that don't do enough will eventually lose it.* It's better to do something and keep moving.



Of course, many other small things can come into play and affect the generations. Maybe they do not have the same emotional level of ownership or attachment to the business, or maybe they do not have the same passion.

There is another dynamic that you can see happening. Someone from the younger generation may say, *"Look, do you see my mother, my father work so hard for the business? And I ask my parents, 'Why are you working so hard?' and they say, 'Hey, if we don't work hard, how do we actually live a good life?'", and the younger generation says, "But gee, we are already living a good life, so why do we have to work so hard? I want to spend more time with my children, I don't want to work so hard like you. We already have a good life. We don't need a better life."*

These conversations and issues happen because the parents did not give their kids a purpose, when you give them wealth instead of purpose.

People need a purpose before their resources can really be a resource. And, again, you are not helping your children find a meaning in anything by telling them, *"Hey, you have to be prudent."* With that, you are only projecting your fear and cause harm in the name of love. And of course, applying the same mindfulness to yourself may also tell the parents they need to start with that purpose themselves, because otherwise their children will see the parents as having *"no life"* and then maybe rightfully question *"Why would I want to have that vibe?"* Unless there's a clear, bigger purpose, why should someone have to give up so much for his or her life as a family does?

Family businesses are also very complex simply because there's a family involved. And with a family comes family dynamics. It's like Hotel California: After you check in, you could have checked out but you can never leave. You can run but you cannot hide. The family and family dynamics are permanently attached to your psyche. Also things like guilt, shame – so many emotions are linked up to it. No matter where you look, just the family dimension is already difficult. And unfortunately, so many are damaged by it, or simply run away from it.

In order to take the healthy, normal path and be really sustainable, we need what I call the real mother of capital.

Matthias Knab: What is that mother of capital?

Frederick Chavalit Tsao: The mother of capital is intelligence, and the mother of intelligence is consciousness or awareness. When you are aware, you become intelligent and see the opportunity that then allows you to create money and capital.

Now, today we talk about social capital, financial capital, technological capital, even about spiritual capital. But in any of those, to create, sustain and increase capital, we are really talking about raising consciousness. When you raise consciousness, you become more aware and your creativity to solve problems increases as well. Therefore, to me, working and raising consciousness is only the only way we can sustain.

Matthias Knab: In your upcoming book "Quantum Leadership - New Consciousness in Business", published by Stanford University Press, you describe how changing a person's consciousness is the most powerful lever for unlocking his or her leadership potential to create wealth and serve humankind.

Frederick Chavalit Tsao: Correct, with my co-author Professor Chris Laszlo we are talking about that and also describe day-to-day practices that can help achieve greater effectiveness, connectedness and well-being.

Apart from physical needs, we also have mental and spiritual needs, and I believe that particularly four areas are very important. We need to have love, we need to have purpose or meaning, we need to have value, and we need to have hope, the hope that our efforts are worth it and that tomorrow will be a better day. These are also the four aspects we have to integrate and consider when serving the ultimate needs of our family and our stakeholders.

And lo and behold, now we are talking about the second theme I mentioned in my introduction that I want to talk about with you: **What exactly is the self-image or self-concept of family?** How do you define your family? Well, now you can hear a lot of things, particularly when it comes to some of the older and more established families. "We are very powerful family!" Okay, but think about what that means, where it lays the focus, and how such a family is going to sustain itself. The risk here is that if you define yourself as a powerful family, you will end up in a reality where everybody will be fighting over power. Similar when you hear, "Oh, we are very respected family. We are like a dynasty, we're very respected."

Then we are entering the reality of soap operas which do in fact mirror those type of families in their plots. But think about that, *what will be a family definition of the kind of family that you together with your descendants can aspire to sustain?*

Of course, we should aspire to be or define ourselves as an evolving family, because only evolving families align with sustainability. If your family is evolving, your business is evolving.

And from that perspective, the only type of family values that we have to think about and define is the family culture, the family worldview, values and belief system that we aspire to be and have as an evolving family. By defining this properly, all can come into play: purpose, consciousness, resources, and the creation of a system that can potentially keep evolving. So this is how we can sustain.

You will recall that in my introduction I asked an additional question: **Why do family businesses want that sustainability?** What do we really want? Of course, the reasons why we want to sustain a family business can be many. Well, in the world of families that we are talking about here, most of the people have already enough resources before they may decide to work on something new or something else. They have already upgraded themselves to the top, and ideally created a system of sustainable resource generation. With that, you can have a quick start when it comes to new things.

When the family is really working together, there is more power behind it, and you can collectively create something greater than what yourself can create. And therefore, evolving families working on evolving relationships – also internally – and growing the family resources, then this family can collectively do great things. An individual – the next gen or also someone from outside – can get into the system and evolve much faster much earlier in life.

These are some of the benefits of the family business that you can start with resources and with what I call a development system that then over time also helps you manage your family better and keep it on the track of growth and evolution. In the end, everyone wants to realize their life's potential, and if a family is successful in those things, they will totally align with life on many dimensions: family life, social life, even the environment and world peace.

And, as final thought, the most powerful, influential institution in the world is business. We, the people and families owning, operating and investing in businesses, are part of this giant force which is shaping our planet in so many ways.

I think that in general, the business community should be taking a long-term view and focus on a better tomorrow by serving human needs and creating wealth at the same time. This is my appeal for family businesses to start waking up to this. We have already come a long way and are a lot more aware of many things than even 50 years ago. And so we know that we're living in a different world now. We are in a world where information and knowledge is essentially free. You don't need to study school to be able to be involved in today's world, it's on your hand or in your palm. 90% of that information was uploaded in the last two years, and that process keeps speeding up.

So here you have my thoughts. We have to really reflect on why, what and how. I think that only a purposeful family which lives mindfully will evolve and thrive over the long term. At the same time, don't take my or for that sake anyone's word as the ultimate truth. But, as Buddha said, "Don't take my word for it. Go and find out for yourself to see what I said is true or not."

Matthias Knab: Thank you so much for sharing your thoughts.

Frederick Chavalit Tsao: I also want to thank you for giving me this forum to express what I think is relevant.

Of course, we also could also have had the typical family business conversation. Business started in Shanghai in 1906, and then we look at things like migration, changes within China, and the challenges of transition between generations, etc.

You see, like many of your readers, I was born into this world, and the truth is that families usually want to listen to another family's story. But in essence, it's always the same basic story. Hollywood and the soap operas from today have the blueprint as well: It starts with the initial success, things expand and go quite well, and then comes the crisis, either internally or externally through things like wars and struggle, and then it all falls apart, until finally we get it all together again, we overcome the thing and survive. But then, of course, another problem and another crisis arise. And the cycle just keeps going on and moving through and involving many generations. We have only one story, but told by different families, and everybody is eager to listen to the same archetypal story. Don't get stuck there because that shows that maybe you as a family and family business aren't learning.

But why are these stories so popular in the first place? Even at family office conferences people are spellbound when families tell each other's stories. Well, listening to another family's story validates all the others to feel better about themselves. *"See? Every family has a problem. Listen to this, they are like us!" Or, "They are worse than me. We are better than them!"*

By the way, this is also validating thoughts and beliefs that *"it's okay to be in shit", or that "it's okay to be in pain because the other guy's life is painful as well. So when everybody's life is painful, let's just accept life is painful." Or, "family life is like that."*

As you would have thought, we once more need to question our assumptions and the way we operate as a complex family and business system. Admittedly, stories can potentially teach us a lot, but when we want to make real progress with our true aspiration of sustaining our family business, then we have to ask different questions and leave "the rags to rags in three generations" myth behind us. How can we create, how can we become truly aristocratic by truly taking responsibility and operate at the highest level of society and thinking long-term with a sustainable and relevant purpose?

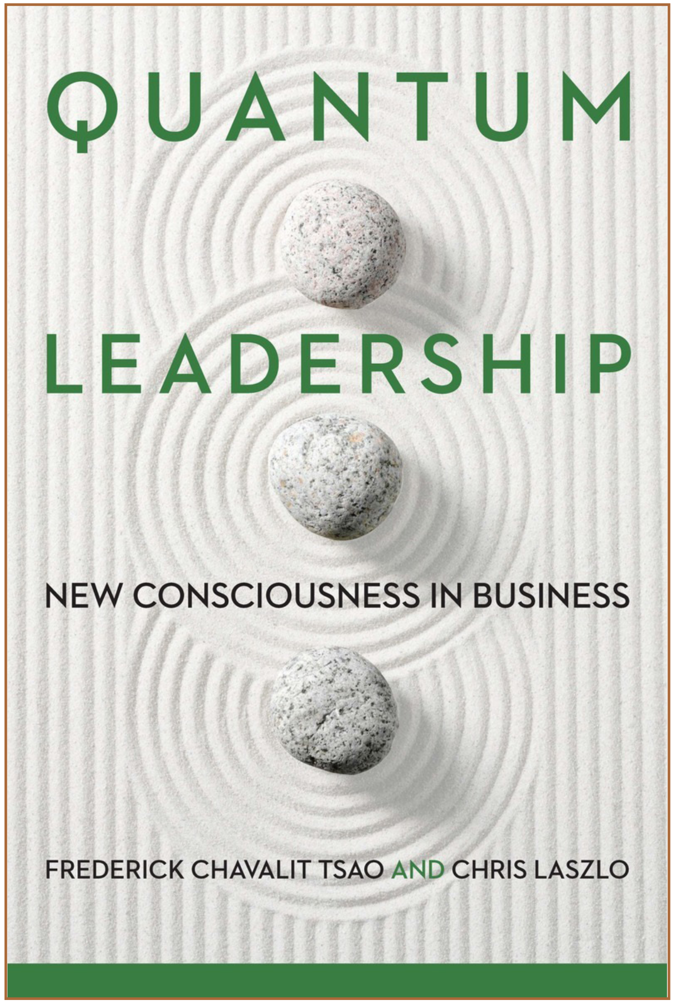
The oldest family business in the world is the Hoshi Ryokan in Japan which was founded in 718 and is now run by the 46th generation and built around hot springs. The 1st generation owner Zengoro believed that Hoshi should become a proper hot spring inn to soothe both the body and mind, and that this healing water belongs to the people. 1,300 years later the purpose of his descendants is still the same. They also haven't built a chain of 500 spas or so. I always have to think about this example when reflecting about sustainability in families and business.

Hoshi Ryokan in Japan was founded in 718 and is now run by the 46th generation.

Matthias Knab: Before we end, allow me to get back once more on your book about Quantum Leadership where you describe the journey to higher consciousness which combines embodied experience with analytic-cognitive skill development, and that this changes people at a deep intuitive level. You also mention that people who pursue this journey are more likely to flourish with significant benefits to both business and society.

Frederick Chavalit Tsao: The core of quantum leadership is to develop life purpose and direction and how to activate our creative power or Tao, the creative force of life. Of course our purpose should be in alignment with Tao. We are not asking people to do anything. So you don't have to go and save the world, but maybe it's a good idea to save yourself by really becoming mindful about yourself. The "I" is in the "We". When we focus on the "I" and so on what's best for yourself, then everything of the "We" will be taken care of by the "I". At the same time, "We" is no good without a mindful "I".

Summing up, when you're really mindful about yourself, at the same time you are also taking care of the greater good. In the book we also discuss day-to-day practices we found helpful in developing this essential mindfulness.



Digitizing your FO:

Getting back control of your asset related data

In **Family Office Anonymous** we speak with family office leaders and principals who want to share their thoughts, reflections and experiences with a greater audience while making sure their identity is protected.

Contact Matthias Knab using Horizons@Opalesque.com if you like to be part of future columns.

Matthias Knab: Which data have you digitized and why?

We set out to digitize all asset related data, so all documentation, contracts, bank statements, invoices, tax statements, internal notes, and so on) from internal file cabinets, and, equally important, from suppliers and different service providers, including banks, notaries, legal and tax advisors, authorities, and so on.

The project took us roughly two years from start to finish. When we look at the "Why?" of this project of digitizing our family office, we were really driven by various reasons and outcomes we wanted to achieve:

1. Centralization: Having all relevant asset related data in one place.

2. Independence: Regaining, at least potentially, independence from certain providers in our broader eco-system.

3. Information & Organization: Getting a complete historical and current overview, and also structuring data and separate the relevant from irrelevant data.

4. Conservation: With digitizing records we also want to ensure document readability and prevent print quality from fading.

5. Information Management: Having easier access to data.

6. Control: Implementing authorized access on a need-to-know basis.

7. Analysis and Intelligence: Creating and using our own data pools to be able to build our own data models which then allows for scenario building and simulation.

Matthias Knab: How did the project look like and who was involved?

We used a standard data repository software and adapted it to fit our requirements for a modern graphical user interface, secure cloud storage, security gateways and scenario engine.

As you would imagine, this required a sizeable interdisciplinary team of IT architects, cybersecurity specialists, programmers, project management, and more. For data input we involved all internal family office staff and also from our broader eco-system staff (banks, advisors, providers and also some family members). We also employed scanning and picture enhancement specialists.

Matthias Knab: Can you describe what you have implemented? How does the technical structure of your digitized family office look like?

I think we are privileged to be able to work now with a fully integrated, unique and customized family office data repository with a two layer authorized access infrastructure. We are using secure cloud data storage, facilitating the collaboration of our family office staff with the eco-system. We have also very clear, defined and transparent procedures and operations to include and gradually delegate to the next generation.

One of the key aspects is that now we ourselves control and steer all family office relevant data. We are able to provide documents on a need-to-know basis and have the capability to simulate future scenarios influenced by geo-economical, internal, legal and regulatory changes.

The technical structure consists of secure notebooks, secure smartphones, security gateways to encrypt all data and an external cloud provider.

Matthias Knab: What has this project enabled? How differently are you operating now?

One important aspect is that we now feel we have a much higher degree of security around our data. As we all know, any loss or manipulation of data can have devastating consequences.

More, we also found that we reduced IT and office operational costs. Again, we strongly felt that we ourselves – the family and family office principals – needed to regain control over the documentation in our eco-system. As much as we may love our trusted advisors, we felt it could turn out to be imprudent to rely on their safekeeping of vitally important documents relating to assets or contracts.

From a technical perspective, I would add that a significant enabler for the whole project was the market availability of strong encryption of data in a cloud.

We also find that now we are working faster, better and more secure with our eco-system. We have a much better overview of our assets, and less effort is needed in dealing with things like regulation and authorities.

When it comes to the actual management of our assets, we can better and more frequently (up to daily or intra-day) evaluate our portfolio. We can quicker and more effectively react to external and internal changes and can better plan for the future. While the digitization project was of course a financial investment and required a major commitment of time, it also resulted in significant reductions of family office operations costs. We can now also securely allow our staff to work from different locations, especially where they are closer to the core of the managed asset.

Matthias Knab: What were some of the challenges you ran into?

That's a good question. We actually underestimated the reluctance of the eco-system to provide documents from their own file cabinets. The fear was that that once they give up the files, they could then be more easily exchanged for a competitor.
They now see that they work faster and more effective with us and that their expertise is the relevant factor for us instead of their „storage capacity".

And the time and costs involved when switching to a new provider has significantly been reduced.

Matthias Knab: What would be your recommendations for families that decide to embark on the same task of digitizing their family office?

Of course, each family is different and operates under different conditions, but the following hints may be helpful to keep in mind:

- Start as soon as possible. In today's world, we realized that digitizing our family office and reclaiming control (and stepping up security) is vital. On the other side, this is a kind of project that is important, but probably few would also view it as urgent. My recommendation would be to commit to the task any way and get going with it.

- Specify your family's and your family office's requirements

- Look first for a commercial solution provider before starting your own customized solution.

- Have internal expertise available.

- Plan between 12 and 18 months.

- And finally, don't let your eco-system question or jeopardize your project!

While Family Office Anonymous respects the confidentiality of our interview partners and contributors, the principal of this family office has signaled his openness to answer questions from peers (single or multi family offices) regarding a family office digitization project.

Please email Matthias Knab using Horizons@Opalesque.com, your email will then be confidentially forwarded.

Dominik von Eynern: Creating and living a Family Constitution

Dominik von Eynern

Dominik von Eynern comes from a business family now in the 5th generation and is a Partner of Blu Family Office. He holds a BA in Economics from the University of Augsburg and a Masters in Financial Engineering from the Goethe University in Frankfurt and has over 20 years of experience in principal investment and business development.

Matthias Knab: Why do families need a family constitution?

Dominik von Eynern: Because families may form a unity on the outside, but on the inside, they may not be that unified, driven by the diversity of belief systems and thus, a lack of a common reality. The absence of a common reality impedes efficient decision-making and is conducive to behavioural risks materializing. In other words, the human capital and the social capital which are responsible for the creation of financial capital can become fiercely destructive and erode wealth in a much shorter period of time than it took it to build.

Therefore, we need to think of ways to contain and manage behavioural risks. One of the proven risk management instruments is creating a constitution that identifies and aligns the belief systems, the values, the goals, the visions of a family in a document, so that everyone is on the same page.

Matthias Knab: Dominik, your family went through the process of creating a family constitution. Can you give us an idea how much time this process takes until a document has been created and approved by the whole family?

Dominik von Eynern: This of course depends on the family and also on the size and complexity of family. In our case, we were over 20 people and we hired an external facilitator, which is important because anyone from the family is likely to be suspected to have an agenda. So, we took an impartial adviser and spent four weekends on the matter and after some discussions, we had the constitution drafted by our facilitator ready to sign off.

The family constitution was also supposed to unfold its impact top-down, to create a common reality for *all family* members of which there are more than the number of signatories. “Creating a common reality” may sound strong, but fact is, that you can quickly have problems if these documents are not lived – meaning they are finalized and signed off, and then they rot somewhere on the shelf. It’s therefore an ongoing challenge to keep your family constitution alive and relevant, also for the non-signatories. Just meeting up in a representative group and formulating the document and sign it won't hack it – it is simply insufficient for the creation of a common reality!

Today, I would advise to follow an all-inclusive bottom up approach and spend more time on creating a common reality before writing and signing the document. This way family members are more likely to own it and hence, live and abide by it.

Matthias Knab: What are your observations and experiences here? Which are some successful or promising ways you have seen within your own and other families how to ensure a family constitution is lived?

Dominik von Eynern: In our specific case we had a generational change in governance, and we referred to our family constitution heavily to actually bring this change about, for this matter we made it a living document indeed. Maybe if we weren't in that specific situation, the constitution wouldn't be that alive. Besides that, regular gatherings of family members at the AGM or at the family day provide ample opportunities to enact the principals of the document, for instance by the way of self-conduct. Relevance must be ensured by revisiting the document regularly, especially with more of the next generation maturing or after major disruptions.

Matthias Knab: So, you had a good experience and would recommend that process where a trusted and capable person or coach works with the family on an individual basis for some time.

Dominik von Eynern: Correct, it takes time, but it is a good investment and experience for individual family members and the group as such. Indeed, my recommendation would be to have someone who works with the individuals and then with the group to create this common reality. How long does it take? I can't be the judge of that because every family is different in size and in complexity. It may take half a year, it may take a quarter of a year, or a year and then, but it must not stop there. Again, regarding the methodology I think it's better to have someone working with a bottom-up process rather than a superimposing top-down approach.

Matthias Knab: Dominik, I know you also have a personal research and academic focus on behavioral economics, in particular behavioral risks that can unfold in wealthy families. Is there a sort of link between having or not having or not living the constitution?

Dominik von Eynern: Not living the constitution is tantamount of not having it, since it is not a legal document. So, why is it worth having one? Family constitutions can mitigate behavioural risks by setting out principals and managing expectations which is paramount for the survival of families. Family wealth is at risk, but the biggest risk to family wealth is the family itself! To put this into context: every family has three major risk exposures: behavioral risks, financial risks, and operational risks. Financial risks can be reduced to an asset/liability problem which must be solved efficiently. Operational risks are to do with how and where to hold the wealth (asset protection etc.) and behavioural risks are inefficient behavioural patterns, exhibited by family members or the group of family members that negatively impact on financial and socio-emotional wealth.

These three risks are all interrelated, and if we were to weigh them, behavioral risks account for most of it.

This argument is supported by a study done by Vic Preisser in the US, which looked at why family wealth transitions are actually failing. According to this study, in over 90% of the cases, materializing behavioral risks are the culprit, which leaves very little for investment, tax and legal aspects. Behavioural economics is a way to think about behavioural risks, which makes it more graspable for me.

Matthias Knab: Do you want to tell us in greater detail what are these behavioral risks and how do they materialize?

Dominik von Eynern: For instance, successions have plenty of behavioral risks with far reaching consequences. The issues here are often problems around mismatched expectations. Many of these expectations are not known to others. People live with ambiguity, fill in the gaps by simulations and suppress emotions. The emotional undercurrents will surface at some point and may cause conflict.

At some point, the patriarch wants to retire or is suddenly retired unplanned by disease or death – then often things start to get really messy. Why? Because these previously tacit expectations are being voiced. When you run into family conflicts, very likely lawyers get involved, much to their delight, as it can quickly develop into a very costly process. And when a conflict ensues and spreads like algae, the family can then be at risk to disintegrate which also has economic implications. The family can no longer invest together and it loses economies of scales. The business performance suffers and so do the work force, who rely on their employment, income and purpose. It may have ripple effects as external financiers and clients fear to contract with unstable businesses.

The next generation is a chance and a risk at the same time. If the next of kin have more than enough money in a consequent free environment and no purpose, they have an incentive to be indolent, harming their psyche. Human beings thrive to find purpose, the lack of purpose induces cognitive dissonance in individuals. Compensation strategies can come in form of self-indulging behavior in conjunction with drugs, gambling and other addictions which causes health and reputation-risks for the whole family. The next generation can also represent opportunity risks in this way, because they also could contribute to family wealth by pursuing more productive activities.

Both examples reduce family wealth.

Matthias Knab: When it comes to governance issues and behavioral risks of the actual family-owned businesses, what recommendations would you have when someone believes or suspects that the corporate governance in their family business is subpar to best practice?

Dominik von Eynern: Well, I think that best practice is a dangerous word. But first of all, why do you need governance?

Mostly, there is a strong-minded patriarch who manages the business. Like all mangers, his mandate is to take calculated risk and allocate resources efficiently, but not many hold him to account and dare to challenge him. Members of the advisory board tend to be 'trusted' advisors or 'yes-men', which are not independent, the group of shareholders consists of well-conditioned people pleasers.

As a result, the governance is weak, the manager's behavioural biases remain unchecked if not endorsed, which exacerbates the problem. Resources are likely to be allocated inefficiently to the detriment of financial, as well as socio-emotional family wealth.

Patriarchs often see themselves as stewards. The stewardship regime is an invention of the 19th century and is still practiced to this day in more or less implicit ways. According to the theory, one person is usually doing everything and everyone trusts this person to act altruistically in their interest.

The core problem is information asymmetry and *unchallenged* agency risk. I argue that the steward is an agent, which is described in the principal-agent theory. The principal-agent theory applies when you have a pool of capital that is not solely controlled by the capital-owners but by someone else who *cannot* be trusted to act in the interest of the capital owner as he has an incentive to pursue his private agenda.

The steward in a family business with shareholders other than the patriarch means, that the steward is a de-facto agent. Thus, there's information asymmetry and hence, agency risk to be dealt with.

The steward is endowed to his status and may even feel *entitled* to be trusted. Treating him as an agent is likely to upset him, but that tree must be shaken by the shareholders. Once you have a principal-agent situation, you must deal with it in a professional way for the sake of *all stakeholders.* Professional governance introduces transparency, meritocracy, eliminates entitlements and paradoxically, can create *genuine* trust. The trick is to find the right balance of trust, accountability and transparency, so that family businesses can use all their advantages of being a family business without the disadvantages that may come with it.

Matthias Knab: What benefits and advantages do you see for a family owned business if they have say a first class level of governance?

Dominik von Eynern: Family businesses tend outperform non-family businesses by some measure and that is primarily the result of mental ownership and the endowment to the business rather than pure economic ownership, which is prevalent in non-family businesses. Business families derive positive utility from socio-emotional pay-offs as well as financial pay-offs, invest for the long term in business, people and teams accumulate tacit knowledge over time. The endowment culture can even transpire to the workforce. Peter Drucker is quoted to have said that 'culture eats strategy for lunch' and I think family businesses are prime examples for that.

This leverage in governance works in a positive and negative way, hence it is important to introduce governance systems and synchronize corporate governance with family governance. When, at what stage? Any time, but the earlier, the better!

A well-functioning corporate governance ensures efficient resource allocation to optimize risk-adjusted business performance and in combination with family governance, it optimizes socio-emotional respectively socio-economic wealth of the family. Once established, it has a knock-on effect on generations to come.

Matthias Knab: Thank you Dominik for your insights, I look forward to our next conversation!

Dominik von Eynern: You're welcome! Next time we could go deeper into succession planning.

Transition – A family must first govern itself before governing the family business

Dr. Kurt Moosmann

Dr. Kurt Moosmann, who knows much about the common pitfalls of generational transitions, gives recommendations and warnings and some real-life examples.

He is the owner of Moosmann Advisors Ltd, a Swiss-based advisory shop specialized in serving first generation entrepreneurs to multi-generational business owning families and family offices.

Opalesque: What should a successful generational transition process consist of?

Kurt Moosmann: It's complex in the sense that one has to know where one starts from and what with. For instance, entrepreneurial families, whatever generation, often own active businesses and other illiquid investments. The business is generally considered the goose that lies the golden eggs. So, it's really a question on how to transition the operating business to the next generation, while maintaining the human capital within the family and continue building domain expertise, whilst diversifying risks by deploying other investments of their asset holdings wisely. To a certain extent, maintaining the capability of injecting private funds back into the business in an event of unexpected liquidity constraints, has proven to be vital e.g. during the last Financial Crisis.

Opalesque: What are the causes of an unsuccessful generational transition?

Kurt Moosmann: We know that only 3% of the family businesses will actually transition into the fourth generation successfully.

Although every family case is particular, it is still possible to summarize the five principle causes as follows:

1. uncoordinated financial demands on business profits,

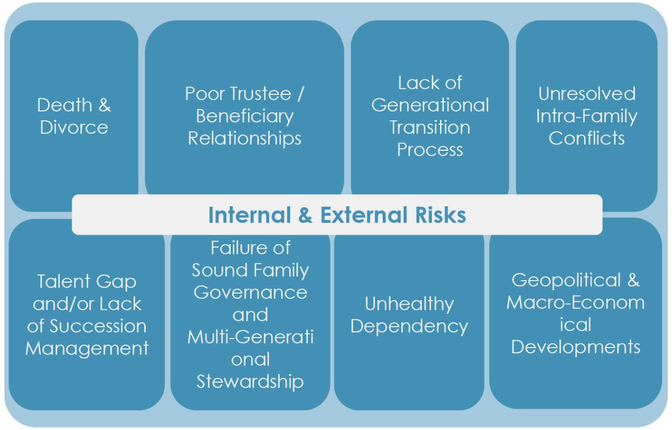
2. unclear boundaries between the family-held corporations and the families themselves,

3. the lack of non-financial capital development, followed by an often witnessed

4. inadequate business operating oversight,

5. the elephant in the room syndrome, which is when families do not pay close attention to internal and external risks, which can be anything from missing prenuptial agreements to spendthrift children.

The elephant in the room

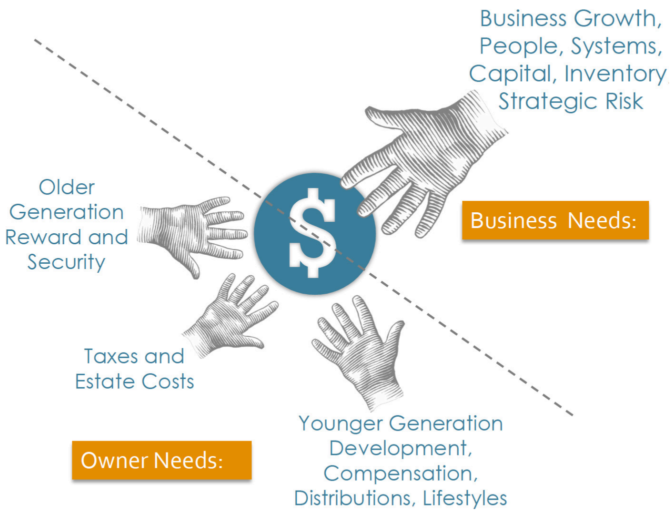


Source: Moosmann & Bly: Governance and Generational Transition Processes

Opalesque: Tell us more about uncoordinated financial demands on business profits.

Kurt Moosmann: The uncoordinated financial demands on business profits is often seen when owner needs do not correspond with the needs articulated by the respective family-owned businesses. For instance, when on the one side, the older generation seeks a well-funded and secure retirement or the younger generation is rather interested in deploying the wealth in a more sophisticated or diversifying manner. Whereas on the other side, the running of the business requires sufficient funding to cater to the various business requirements.

As businesses grow over time and become more international, further complexities arise that need to be carefully managed. In a more globalized context, understanding and properly managing the foreign tax and reporting obligations become a crucial part in safeguarding these assets in an efficient and sustainable manner.



Source: Moosmann & Bly: Governance and Generational Transition Processes

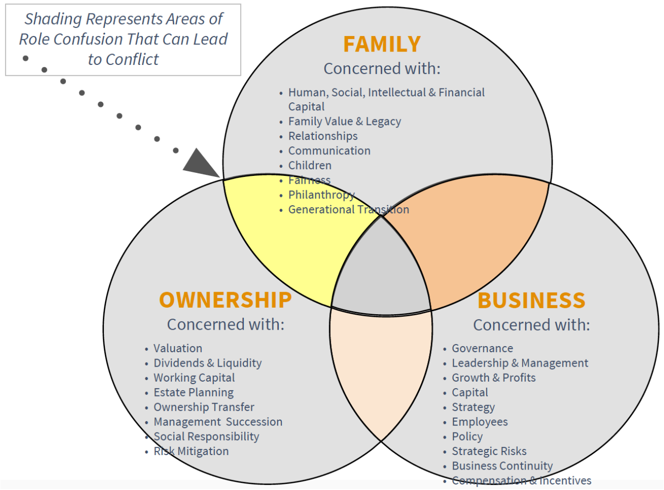
Opalesque: Do families generally understand how complex transitions can be?

Kurt Moosmann: No. Though it depends in which stage the family finds itself. The big transitional issues erupt usually between the second and the third generation, from the siblings' generation to the cousins' generation. You often hear about third generations having difficulty in maintaining the wealth of the family, whether they're involved with the business or not.

Opalesque: Tell us more about the issue of unclear boundaries.

Kurt Moosmann: The Three-Circle Model of the Family Business System (developed at Harvard by Renato Tagiuri and John Davis in 1978) addresses these unclear boundaries and interdependencies between the family, the owners and the business itself. This really tackles the issues that need to be addressed when you want to transition successfully, which is especially complex when it involves an active business. In such circumstances, the aspects of human, intellectual and social capital require proper attention and obviously raises the level of complexity in ensuring that a business-owning family can transition, strengthen and grow the company in the future.

Without a business involved, one often refers to the more common gift and estate planning instruments to transition family wealth, such as inter-vivos gifts or by way of testamentary disposition. Unfortunately, however, experience has shown that still nowadays a large number of savvy business owners or wealthy individuals even fail to write a last will.



Source: Moosmann & Bly: Governance and Generational Transition Processes

Opalesque: Which brings us to third issue, the lack of non-financial capital development.

Kurt Moosmann: I really believe a successful generational transition requires an understanding that there is correlation between human capital, intellectual capital and the financial capital. And frankly the financial capital is the least important, it's really more about understanding the correlation between the knowledge, talents, values that family members might have and their learning aptitude and the family's ability to communicate.

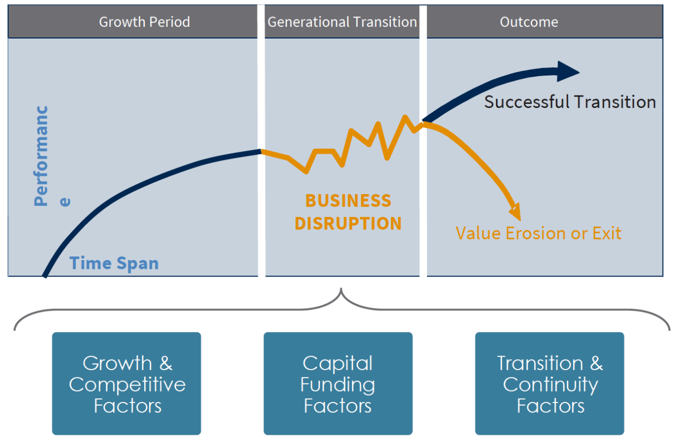
Over the past years, we have witnessed a growing number of families that have expressed a large interest in ESG compatible asset classes. In many multi-generational scenarios, there are families who have even created their own foundations or have embarked on a more economically sustainable path. It is therefore important to review and to define a decision-making process that blends and unites these various aspects of family wealth.

HUMAN CAPITAL	INTELLECTUAL CAPITAL	SOCIAL CAPITAL
The knowledge, talents, values, passions and aspirations of an individual family member	Alludes to the individual's learning aptitude and the family's capabilities to communicate, resolve conflicts and make joint decisions	The networks of relationships among people who live and work in a particular society, enabling that society to function effectively

Source: Moosmann Advistors Ltd

Opalesque: What about the issue of inadequate operating business oversight?

Kurt Moosmann: Generational transition often leads to business disruption. This is where you want to watch that such a hand-over doesn't result in a value erosion. Transitions are often coupled to extensive liquidity needs, as it might involve a different capital structure. Moreover, principals tend to have plenty of difficulties in preparing for an orderly transition. If you look at the market where you have business-owning families dealing with transitional issues, you will find that more than two thirds of all business leaders, irrespective of being a family or non-family member, are 65 years old or older without having a clearly defined transition plan in mind. And if you imagine how long it takes to actually find and integrate the right successor, then you understand why such firms often will struggle later on in the process.



Source: Moosmann & Bly: Governance and Generational Transition Processes

Opalesque: Could you give us some examples of how you solved some transitional problems?

Kurt Moosmann: There was a case where a multi-generational family group decided to sell its family enterprise. After the transaction had successfully been completed, the family members had lost the family's common denominator for remaining together, and instead was now holding a pot of cash with no sense what the next step ought to look like. As one would expect, most family members wanted to take their share and run. But simultaneously, they had understood that keeping the wealth concentrated would enable the family to grow and diversify the capital more efficiently, thus allowing them to work towards a new common goal. So, we proposed a strategy that I refer to as "the Golden Cage principle", where you try to convince the family members to stay together, like in a virtual "cage" – if they agree to that – and they have to agree to stay within the family group and have their assets centrally managed e.g. by an investment committee.

In this and other similar cases, where a large number of family members are involved, a new corporate is created thus representing the family's liquid wealth. This way the family's investment committee or its decision body has the ability and power to propose a long-term investment strategy. In recent years, numerous entrepreneurial families have reinvested substantial amounts directly into other family-owned business enterprises across the globe, and in the US in particular.

Yet, each family member, contrary to the overall objective, still has the ability to exit the family group at the end of each fiscal year, at a certain discount. What is interesting is that if you were to close the door of the golden cage, everybody would want to leave the group because, psychologically, they would be feeling trapped. But if the "door" stays open a little bit, family members are interested in giving it a chance. That's the way we were able to keep the family together and to build a new and successful family venture.

Another case took place in a first generation family where the principal had built his business. He had four children, two of whom were actively involved in the business. The founder of the business had yet to constitute a basic family governance. Although the two children, in their mid 40s, had been working for the family business for a number of years, the principal had felt that his children were not prepared to take on the reins of the family business. On the other hand, he had showed little interest in spending lots of time on creating a continuity plan for the family's business interest.

After an extensive phase of animated discussions, the founder, at first, was reluctantly prepared to create a simple governance structure. During the preliminary phase, the family had to decide on various aspects that are so paramount to any family setting. A family constitution was crafted, reflecting the joined values and reasons for building a basis for the long term sustainability. It was also a time during which the next generation had to understand the responsibilities that coincide with the right to lead in the future.

The value question was very interesting because they needed to get a clear understanding of what the core values of the family were; that took them quite some time. They also had to find a communication process to overcome disagreements and future problems. This family was able to draw up their constitution, find a mutual understanding about their mission and values and ultimately obtain the common notion of what in their eyes merits the efforts to build a common ground for a unified family as well as for their business.

When families are involved in running a business, family governance is at the forefront of that equation. It is my sincere opinion that a family must first govern itself before governing the family business.

How to Make Your Family Business Last Across the Generations - Part II

Five tips to create a positive family culture

Mitzi Perdue

Mitzi Perdue identified the failure to develop the right family culture as the main reason why family businesses fall apart and shares **five practical tips** to develop and maintain such a culture.

Mitzi Perdue is the daughter of Ernest Henderson, the man who built the Sheraton hotels from one hotel to more than 400 during his lifetime and was the first hotel chain to be listed on the New York Stock Exchange in 1947. She is also the wife of Frank Perdue whose promotion of the Perdue brand through high-profile advertising resulted in creating the first well-known brand of chicken in the U.S. While Frank is now recognized as a visionary – branding his Perdue Farm chickens with his own name and being the first to put a name tag on them – Mitzi says that as much as she admired him for his success in business, she admired him even more for his success as a family man. Mitzi is also a businesswoman in her own right. She started the family wine grape business, now one of the larger suppliers of wine grapes in California.

Mitzi likes nothing better than to share insider tips for successful family businesses. The Hendersons started their Henderson Estate Company in 1840 and her Perdue family started in 1920 in the poultry business. These two families have a combined tradition of 278 years of staying together as a family.

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You may be familiar with the statistic that 70% of family businesses don't make it to the second generation. The big question is: how can you beat these odds?

Family members need to learn some basic cultural attitudes. They need to know that they're part of something bigger than themselves, and that they can't always be right. They need to learn that being a member of a family business sometimes requires sacrifice.

The biggest reason that business families' fall apart is that the family hasn't developed the kind of culture that supports keeping the family business in the family. Families that leave this to chance rarely make it to the next generation.

So, how do you create this kind of culture?

Know your family stories. We are the stories we tell ourselves, and high- functioning families have heard their family stories over and over again. How much does your extended family know about where the family business came from and what made it what it is today? How much do they understand the sacrifices, efforts and tenacity that went into making the family business you have today? Do they know stories about family members putting the good of the family ahead of their own interests? Be intentional about telling these stories. The more stories, legends, myths, and parables, the stronger your family's culture and the more likely your family business is to endure.

Take family vacations. Your family vacation could be five people or 100 people, but whether it's a large group or a small one, having aunts and uncles and cousins spending time together greatly increases the chances of building a family business that lasts. A vacation means time set aside to share experiences and to get to know and appreciate each other and to embed the family's values. It's a time for all branches and all generations to build the shared stories and memories that lead to trust and caring. This is especially important if family members are geographically dispersed, because it allows extended members to get to know each other.

Subsidize a family vacation after you're gone. All too often when the patriarch or matriarch passes on, family members stop seeing each other. Maybe for the first few years, they're together at major holidays, such as Thanksgiving. And later on, maybe they get together for weddings. But gradually, there's nothing left and family members have superficial relationships – or no relationship at all. A highly effective antidote to this is to leave money in your will to pay for a yearly get-together. Some families' subsidize an annual dinner while others pay for a nice vacation. Either way, having an endowed yearly meal or vacation can keep families together across the centuries. Ideally, there's even money budgeted for baby-sitters and child-friendly activities. Endowed family get-togethers can be a highly effective tool for helping the family continue across the generations.

Write a family newsletter. In a geo- graphically dispersed family, a newsletter can play a huge role in helping the family to maintain a strong and vibrant culture. Include in it interviews with the older family members or employees about the early days and some of the company's struggles. Maybe interview the matriarch or patriarch on such issues as why it's good to be public, or why our family should never wash its dirty linen in public, or why it's a terrible thing to be "addicted to being right." The news- letter can also help people catch up on family news – maybe someone became an Eagle Scout, got into the college of his or her choice, or got a promotion. It's also excellent for recording weddings, births, or in the case of an engaged couple, telling the story of how they met. Other topics for your newsletter can include what's going on in the company, including significant milestones. Make it short, ideally no longer than one or two pages. You want people to read it, and unfortunately, there's an inverse connection between how long it is and how many people will read it. If it's limited to one page, your family members are more likely to read it when they get it, as opposed to putting it aside for later and then never getting to it.

Get help if you need it. Fortunately, there's a whole new ecosystem of family advisors who can help. There's no such thing as a family business that doesn't have conflict, and when there's a serious family conflict, the pain from it can permeate every hour of every day.

> Family members need to learn that being a member of a family business sometimes requires sacrifice.

Not to mention that it can blow up the whole family, and with it the family business. So, just as you'd get medical help if you if you had alarming chest pains, don't put off getting professional help if a conflict in the family is getting out of hand. If you Google "family business advisors" you'll get more than 45,000 hits in half of a second. Or if you have a financial advisor, he or she is likely to be able to refer you to a professional trained in family business relationships.

Family harmony is so important, that anything you can do to nurture it is a wise investment. Many families don't stay intact over the generations. This is likely to happen when a family leaves its culture to chance. The good news is, planning is something you can do, and even better, the implementation can be enjoyable and fulfilling.

Club b: Insights from the World's Original Family Office Network

Peter Fletcher

This is a rare interview with Peter Fletcher, the Chair and Founder of the renowned Club b. Club b has long been considered the gold star of Family Office conferences. We gain some insights into Peter Fletcher's investment background and the decades of success of this private club and what is developing within the organization and where it is heading.

Matthias Knab: Peter, how and when did you get started in investing as a career?

Peter Fletcher: That interest began during my university days in the late 1960's. I was going to school at night and started working as a page boy on the floor of the Montréal Stock Exchange which, at that time, was the first computerized stock exchange in the world.

When I had saved enough to travel (which I love to do – I was born to travel), I traveled across Canada headed to Australia where I stayed for five years and gained extraordinary experience in various areas.

Then, on my way back to Canada, I travelled around the world for two years. I traveled through Asia, across Russia and then across Europe, staying in London for some time as well as other countries before going back to Canada, where I had a job at the Montréal Trust Company.

In 1976, the Parti Québécois, a separatist power, came into office in Québec. Similar to what we have seen more recently with separatist movements in Barcelona, a lot of the bigger corporations left and set up branches and operations in another location.

I then got a job in Bermuda in the investment department of the Bank of Bermuda. It was very international – multicurrency – and we were one of the first banks to do it. In 1990, the bank sent me to Hong Kong to run the institutional trust side, and there I got to know investment managers and helped many set up. I was also on the Securities and Futures Commission (SFC) of Hong Kong which regulated all mutual funds and investment managers.

I was also involved with opening up many of the emerging markets for securities trading, such as India, Pakistan, Russia, China and Taiwan. It was a tremendous learning experience, and while there I met many skilled investment managers. At the time, one of the principals from a family office in Geneva came to Asia and they were investing with a lot of managers. I helped them allocate and monitor investments with Asian managers. One thing led to another, and they offered me a job in Geneva to go set up their family office.

Matthias Knab: So is this the time your insights into family office needs truly began?

Peter Fletcher: Correct. That is how I ended up in the family office world, which is a really interesting universe. For example, I found out that in general when someone sells a business, three things happen. First, they don't realize they are in a new business, the financial business. Second, they often think that they are – or have become – investment experts. But thirdly, and more importantly, they never hire enough staff. To give you some idea, I had a substantial amount of money to manage, but when I arrived in Geneva, they gave me just one staff member – a secretary. She was a lovely lady, but she was sixty-two years old. To give you some context, women retire at sixty-three in Switzerland, so that wasn't exactly helpful.

This was all happening in the mid-1990's. I was traveling an insane amount, allocating to hedge funds and private equity. Keep in mind that at that time, a large hedge fund was $200 million. Through my personal and business connections, I always had a deep, global network, and so, one night in London in 1995, I brought about eighteen families together in a private room at a restaurant to talk about asset allocation, managers, and such. This ended up being the first formal meeting of the soon-to-be Club b.

We ended up talking about a specific fund manager and then realizing that the people around the table were holding 83% of this manager's offshore fund. At that time, things like cap intro or hedge fund databases weren't even around. The business was much more relationship driven – everybody would exchange information and ideas. As investors, we also didn't really care about 2 and 20 fees at that time because the managers were making 30 or 40% and also really protecting on the downside.

I continued meeting and working with other families, one in fact right here on the Cayman Islands. This taught me a lot about documents and corporate governance. In a way, my network helped me professionalize and build my own organization and investment procedures. For example, we now look at the offering documents first. Meeting a new manager can be a sexy thing, but if you don't get past the documents, the whole exercise is to no avail.

Matthias Knab: Let's go back to your family office meetings. How did the name Club b come about?

Peter Fletcher: I was having lunch with another family office in Chelsea, London in the mid-1990's at a restaurant where Lady Diana supposedly often dined. It was a beautiful sunny day. After a nice bottle of chardonnay, we decided that we should set up a club because we had been meeting like this so many times already in all types of locations around the world. As we were in Europe, we thought it best to have a French name, so we called it the "Le Club," and then we put the letter "b" after it to stand for 'billionaire' or 'BS'. That is exactly how the name started, true story.

Then, we started to have ad hoc meetings around the world and in 2000 we decided to have a larger, conference-style meeting which has since become our signature event format.

We had our first formal conference with eighty families in Madrid in 2002 and now over seven-hundred families are part of Club b.

Matthias Knab: I know it is rare for you to speak publicly about Club b. Would you mind elaborating where Club b is heading these days? How are things developing within the organization?

Peter Fletcher: Yes, you are right – in twenty-four years, I have never given an interview about the Club b. It is rare because it is always my intention to maintain the strictly private and confidential ethos of the club.

The Club b is a thought leader and idea generator and is fortunate to have some of the world's brightest allocators as members.

The wisdom of the collective Club b membership consistently provides fascinating and productive insights. For example, a lot of the investment themes we discuss come in different waves. At present, these discussions center around direct equity deals and people wanting to co-invest.

Co-investing can be like herding cats – it is not easy to do, and it takes tremendous discipline. I always tell people to figure out what would happen if something goes wrong. Like, what if one of the key parties leaves? In addition, families should be focused on deep operational industry expertise that other members bring to the table, and evaluate co-investments even if the key party is charging fees.

I think it is generally understood that you can only operate on the highest level if you have the best talent, so family offices who really want to excel also need to attract talented people since they are really competing against investment banks, hedge funds, and money managers.

The Club b events always feature family office-centric themes to help guide families through myriad issues they may be encountering. For example, issues like hiring the right staff, dealing with transition, coping in crises and collectively allocating family assets are highly-charged topics within family offices. It was always my vision that Club b help families navigate these major issues through gold star events that promote global family office member connections and the exchange of innovative thoughts and ideas.

Through the Club b events and initiatives, it can be very helpful with so many family groups working together since you have many sets of eyes rather than just your own looking at a deal or a certain issue. To have that kind of strategic and focused insight is invaluable.

Members have suggested starting a membership model, and we are considering that just so we can expand our staff. This would also help us to build technology systems, platforms and tools to connect families, not as a "business" as such, but as systems governed on the same non-commercial and private ethos the Club b was built on.

At a time where more and more family offices are setting up, we can all be of help to each other and form a platform that is purely peer-driven and not commercial-driven by other peoples' interests.

In addition, I have been able to foster relationships that I never could have imagined. Over the years, I have found that Club b is an amazing group of resourceful people. For example, undertaking due diligence on a group investment and/or individual we are probably one degree of separation in the investment world.

As mentioned, what I do also notice is that it seems that families never have enough staff to handle the money they manage. We have tremendous expertise in our member group and can offer a lot of value for existing as well as new family offices that are starting out – those who are looking for best practices and ideas to avoid some of the pitfalls.

Families want to be part of the Club b experience where they can listen to illustrious speakers and connect with other families in a unique event atmosphere. We hold annual events and this year we are hosting our upcoming asset allocation events in Montréal (May 9th – 10th) and Monaco (November 6th – 8th).

I have always been motivated by the clarity and influence of connections – it is always about connecting with the right people for the right answer. It is truly through the power of the Club b peers and wisdom of the crowd that resources and relationships are fostered.

We have been having events for twenty-four years now and, currently, we operate within a referral process that is working really well with applications growing consistently every week.

Over the last ten years, we have also started developing the Club f – which stands for 'family office foundations' which places an emphasis on the next generation.

The Club f is essentially a project of Club b and upholds the same ethos of privacy, non-commerciality and referral system; nevertheless, it is entirely philanthropy-focused.

I probably don't have to tell you that many of the next generation have a social conscience. They want to change things, and they have the desire to approach philanthropy differently.

With the Club b, I always knew what the DNA was, what really drives our people. They want to connect, exchange investment ideas, information, and be part of a thought leadership process in a trusted environment. That is really what the Club b is all about. But I have found the next generation to be even more embracing of the collaborative approach. This is extremely interesting because, traditionally, a lot of the older family foundations were often managed by ego and legacy. They were not really about collaboration or connection, but instead seemed 'to stay in their own universe'.

The Next Gen is changing Family Office Structures Right Before Our Eyes

However, this structure is changing right before our eyes. I see all of the groups becoming more empowered and efficient in their work because of their willing participation and engagement in the peer-driven platform of Club f's global community of donors.

The Club f is about connecting the next generation and others to create a more collaborative initiative and has already produced a number of amazing events and round tables in Madrid, Singapore, London, Montreal and other locations. The events are imbued with lots of positive energy and resourceful, committed people setting out and collaborating to do good locally and globally.

We are having another Club f event in Toronto from March 21st – 22nd. This upcoming event will help to guide families toward proper and effective donation whilst honing in on very important social impact and social change themes.

This event is for single family office foundations and will be especially unique as it will be more conversational and collaborative in nature in a confidential setting, helping family foundations work through their philanthropy challenges and goals in an engaging and thoughtful way. There are so many new philanthropic foundations, and families often face the issue of where to put their philanthropy dollars and philanthropic energy.

Ultimately, with Club f, we want family philanthropy to have an impact and real meaning – through the enjoying experience and fulfillment of collaboration.

Matthias Knab will be participating in the Club f event in Toronto March 21st – 22nd. Single Family Offices and Family Office Founders can get in touch with Peter Fletcher by emailing **Horizons@Opalesque.com** or through the contact form of **Club b.**

Trends – Globalisation and professionalisation of family offices are two separate yet interlinked trends

Peter Brock

According to expert Peter Brock, family offices are no longer small entities operating locally. They are growing in scale and in sophistication, as well as prominence.

Peter Brock is a self-employed Family Officer for mainly two entrepreneurial families and provides independent advice on Family Governance and Family Office Set-up and structuring projects.

Opalesque: What do you see as the most obvious trend among family offices?

Peter Brock: We see a greater globalisation and professionalisation of family offices (FOs), i.e. global tech compliance, good risk management procedures, cyber security. That's on the background of a total change in the world of wealth and asset management. Private banking isn't what it used to be. Products have to change. So the hurdle for FOs is very high.

Opalesque: Tell us more about the globalisation of FOs

Peter Brock: The investment world focuses more on global geopolitical and financial risks. At the same time, families with their own single-family office (those with at least tree-digit million's worth of capital) have to have a global view of asset allocation - and a global strategic asset allocation.

"In my view and also in many family officers' view, one should buy on the ground in the local market."

Global products can be bought from the home country; but in my view and also in many family officers' view, one should buy on the ground in the local market, e.g. buy Asian products in Asia. So families should invest within the currency regions they want to be invested in.

Setting up a family office overseas, once a certain level of investment has been reached, will benefit from economies of scale. More and more family offices being set up both in the developed world nowadays but also in growth markets; at the same time, more international subsidiaries of those family offices are being set up too.

Meanwhile, more and more rich entrepreneurial family offices have their next generation studying abroad and generally spreading around the world. That can also lead to international subsidiaries, in order to service those more global family members.

Globalised investments and/or subsidiaries can help hedge local risks. For example, many UK FOs have set up an office outside the UK ahead of Brexit, but also vice-versa non-UK FOs are setting up in the UK to continue their presence in the currency region of the British Pound.

Family offices that set up a subsidiary in a foreign country should make sure they are very professionally set up so as to avoid making mistakes in any remote region. **Local legal, compliance and tax know-how are of utmost importance. Also, the office needs to make sure which decisions the local operation can take and what level of authorisations it may have. The local staff needs to be integrated into the overall operations and to be controlled in an efficient way.**

Opalesque: Tell us more about the professionalisation of FOs

Peter Brock: In general, the FO sector is growing in size and in professionalism. The latter characteristic is driven by more diversified portfolios, which must be better managed than ever in light of the Financial Crisis and the interest rate environment. Also more complicated compliance regulations demand a greater level of professionalisation.

> ***"More and more families take a do-it-yourself, self-contained wealth management approach."***

People are investing in direct investments, in start-ups, in real estate, in many different products. As part of that, reporting, cost-controls, manager selection, digitalisation get more complex and more professionally demanding and sophisticated, in tandem with the rest of the financial services world.

More and more families very often do not trust banks and want to manage their wealth themselves; they take a do-it-yourself, self-contained wealth management approach. This – combined with the search for privacy and confidentiality – is one of the reasons why the FO industry is increasing in size.

As an aside, this should also lead entrepreneurial families to gather more financial knowledge. Financial training is essential for next-gens and for entrepreneurial families if they want to manage their wealth themselves. Indeed, some of the banks are struggling as all they do is offer products rather than supplying independent advice. There is more need for families to gather more financial knowledge for themselves, but also to involve more independent advisors on certain matters or on a holistic basis to push towards the professionalisation of their office.

A good and easy solution is to invite mentors on different subjects to get involved with the next-gens. This often helps - independent of the family members - to both increase the knowledge and create a greater level of involvement within the family office. On top of the normal ways of education, additional coaching and practical training modules specifically for the family matters on governance and wealth management will add increasing value to the family fortunes.

Opalesque: What changes often take place when the next generation takes over?

Peter Brock: Families historically tend to own one business. Normally, the whole business stays in the family, with the next generations taking over. But more and more often, next-gens don't want to go into their parents' business – for many different reasons, like different interests or their own start-ups. That means the family's next-gen becomes shareholder / owner of the business, without having a managerial role. When that happens, the family offices often diversifies into owning different businesses, either in the same industry or in a different industry, to reap the benefits of diversification. That happens quite a lot and a lot of serious research is being done about it.

More and more families and next-gens look at the families' business activities as a portfolio of investments rather than a family tradition focused on just the one business. Either families decide to focus their knowledge on one or a few sectors and thus be specialists, or they intend to diversify away from the single business into different sectors and activities in order to hedge their investments through this approach.

In short, more families now have a portfolio of entrepreneurial holdings instead of just the one family business.

Workforce – Family office C-level executives have to have more skill sets and know-how than the rest

Matthias Schulthess

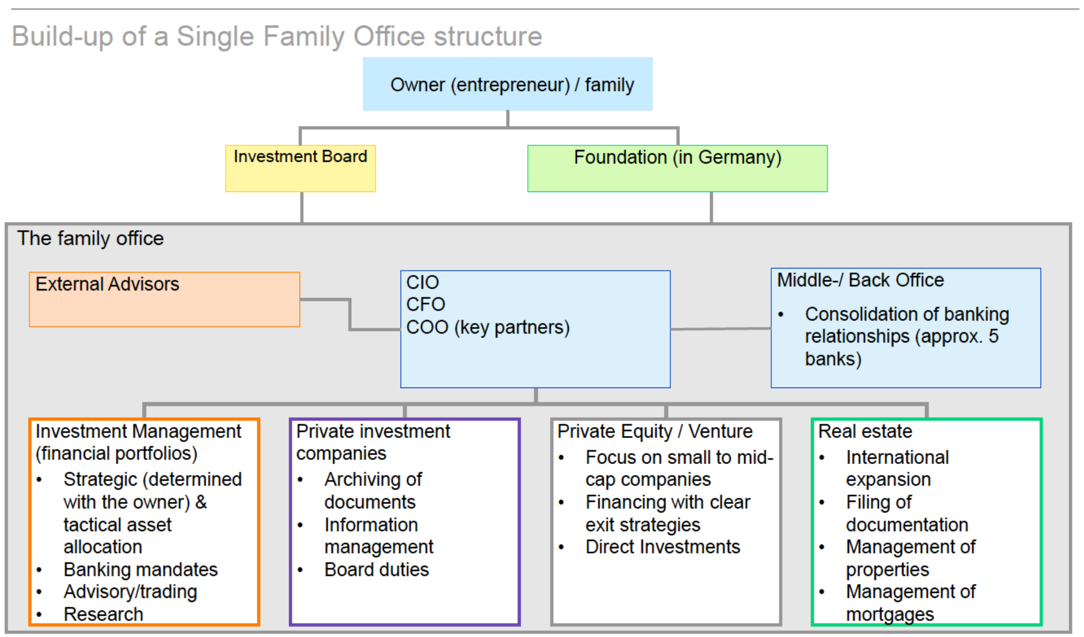
C-Level Positions are gaining in importance as family offices are becoming more professional and are looking for the right people to be so, according to Matthias Schulthess.

Schulthess is a London-based partner at Schulthess Zimmermann & Jauch, which also has offices London and Munich.

Opalesque: Could you explain why C-Level positions (high-ranking executive titles with the "C" standing for Chief) are gaining more and more importance in family office structures? What was there before?

Matthias Schulthess: C-Level Positions are gaining in importance as family offices are becoming more professional and are looking for the right people to be so. High-calibre candidates are looking for "prestige" and the "right" titles, especially when they are leaving the industry and looking to work for a family office. As the career ladder is limited, things like title and compensation package begin to matter even more; at the same time, the professional family offices are seeking to position themselves in increasingly competitive markets, i.e. direct strategic investments, PE, RE, Venture/ start-ups. A lot of capital is around to be invested and so the selection takes place in both directions - strong organizational structures and excellent positioning is therefore key.

Organizational structure



Source: SchulthessZimmermann Executive Search

Opalesque: How are C-level positions in family offices different from other financial sector C-level positions in terms of skills and characteristics?

Matthias Schulthess: Although positions extend from CEO, CIO, CFO to CXO and COO nowadays, the actual focus in terms of expertise and responsibilities is far reaching. C-level candidates in family offices often have to have a much broader spectrum in terms of skill sets and know-how as there is no “box” and the range of daily tasks and executive responsibilities is far reaching. A CIO or CFO may need to bring along outstanding investment and finance skills, but at the same time have profound know-how on compliance, tax and structuring matters in order to bring everything together, with the help of best-in-class external advisors (who are part of the candidate’s network).

The professionally structured family offices have the size of institutionals and need to act as such in order to compete in the market place: this requires an excellent standing towards the outside combined with thorough expertise.

As opposed to the “old times” when you had a Head of Family Office or a CEO operating with the help of a handful of support staff, nowadays high level management teams represent the backbone of sophisticated family office operations that may oversee an organisation of 20-30 people spread across various jurisdictions.

Opalesque: Should recruited C-level execs have experience in impact / sustainable / ESG investing?

Matthias Schulthess: Such skills are often acquired along the way. There are very few professional family office structures out there that have hired teams of executives with tremendous know-how in this area. Furthermore “making an impact” is often perceived differently in the family office world - it may also mean making an impact and changing the world simply through entrepreneurial investing.

There is a reason why one says, “a new generation, a new family officer.”

Opalesque: How does succession planning affect recruitment (and vice-versa)?

Matthias Schulthess: In the majority of cases, succession within the family also means succession within the family office. There is a reason why one says, “a new generation, a new family officer.” In very few cases will the family office structure survive the generational change. However, in the future, this pattern may change as the new generation and particularly the millennials are less controlling yet more involved. Professionalism stands at the forefront rather than sympathy and building the family office around individuals.

Opalesque: Do you think less C-level positions will be held by family members in the future (because next-gens might have other interests for example)?

Matthias Schulthess: They will be held less by next-gen members for the above-mentioned reasons. Also as the new generation is able to admit that they cannot be good in everything, hiring the right people, high caliber experts, will be essential and key to success. With the growing number of female heirs, they may also be a shift towards having more C-level positions filled by women.

AI, big data, multi-strategy: Bringing tech and hedge fund styles to art investing

James R. Hedges, IV

James R. ("Jim") Hedges, IV was one of the early leaders in the hedge fund and alternative investments industry, and is the author of Hedges on Hedge Funds. He was the Founder, President, and Chief Investment Officer of LJH Global Investments, LLC, an alternative investment advisory firm which he sold in 2010.

Jim Hedges has been an active art collector and patron for over 20 years. With a specialized focus on photography by Andy Warhol, Jim has acquired and placed more Warhol photography than any other collector, private dealer or gallery in the world.

Jim has served on The Drawings Acquisition Committee at the Museum of Modern Art, as a National Council Chair for the Aspen Art Museum, a member of the National Committee of The Anderson Ranch, a Director of The Aspen Institute's Arts Panel, as a Trustee for The Drawing Center, a Founder of The American Friends of the Tate Gallery, a Founder of The Aspen Conversations, a Trustee of The DIA Foundation, a Trustee of ArtPace, and member of the National Committee for the Whitney Museum of American Art. He is also a former Director of The National Public Radio Foundation (NPR).

Hedges has also assisted in the publishing of artist monographs including Sigmar Polke, Robert Mangold, Sol LeWitt, Ed Ruscha and numerous others. Hedges has supported artist's retrospectives including Roni Horn at The Whitney Museum of American Art and Sol Lewitt, at the same venue. Support has also been provided to Carl Andre and Sol Lewitt exhibits at The Aspen Institute. Hedges has also made donations of numerous artworks to major institutions such as The Whitney Museum of American Art, The Museum of Modern Art, The Menil Collection, The Dia Foundation, The Tate Modern, The Hunter Museum of American Art, The Baylor School, and Girls Preparatory School.
In 2016, Hedges made a gift to The Archive of American Art at The Smithsonian of "The Jimmy Hedges Papers on Outsider Art," the largest collection of curatorial research materials on Outsider Artists. The Archive will serve as a permanent resource for students, curators and collectors of Outsider, Self-Taught and Folk artists.

Hedges' activities in the art world led Art and Antiques magazine to name Mr. Hedges as one of "The Top 100 Collectors in America." He also served as President of The Hedges Family Charitable Foundation. Hedges Projects has also published numerous editions with artists in Andy Warhol's inner circle including Christopher Makos and Sam Bolton.

Matthias Knab: When I started the Opalesque in 2013, Jim already had his hedge funds of funds going for 11 years, so he started in 1992. So, Jim has been a veteran hedge fund investor who along the way also started to collect art. After collecting art, he then made a transition to invest in art. Tell me more about this transition from hedge funds, to a collector and investor in art?

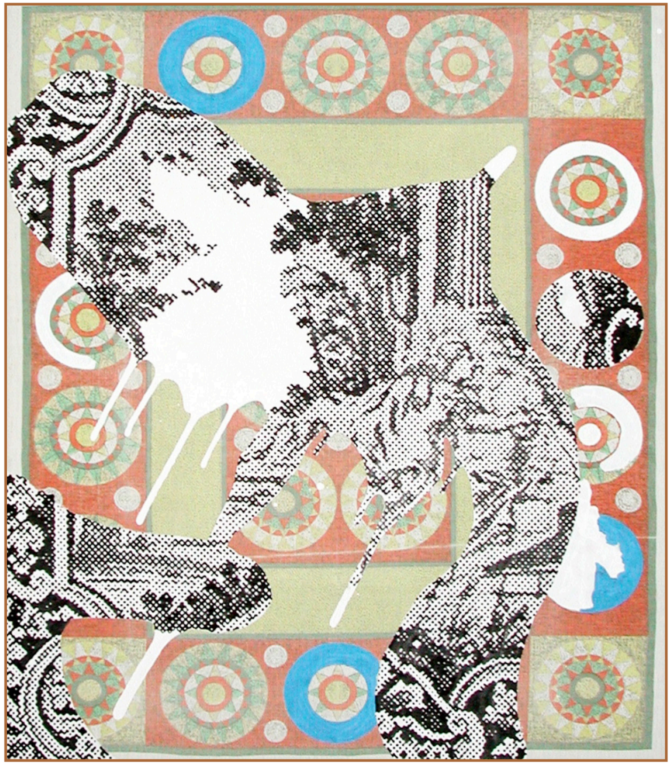
Jim Hedges: When I started investing in hedge funds in the early 1990s, it was a place where people really went for returns. At that time, the hedge fund eco system was much different from today, it was a lot move relationship-driven. It was not very transparent, it had a lot of pitfalls, and it was difficult to understand. And a lot of those markers are the same in the art world today, where there is not a lot of transparency. It's very much relationship-driven type of world as well, but with huge outsized return opportunities.

I actually started collecting art when I was very young, originally in photography and then moved on to different areas. In the course of actively collecting, over time you get more and more educated and you start identify things where there is relative value that looks interesting. Also, when was running my hedge funds of funds, a lot of my clients were also art collectors, and I learned from them as well.

Ultimately, what I found was that the art world was probably the largest unregulated financial asset out there in the world. We are looking at a sector that has about $50 billion a year of turnover with an enormous volume of transactions. However, there is also a dynamic where the real investable universe of art is actually fairly small. If you go and look at auction catalogs from Christie's and Sotheby's and Phillip's, you'll get the lion's share of the names of artist who have defensible liquid markets for their work. So, there is a big universe of $50 billion volume per year, and then there's a smaller universe relatively speaking in terms of the number of artists, or we may even describe them as securities.

Let's think about some of the ways in which you can assess value – interestingly, the lessons I've learned in the funds of funds or in the hedge fund business are very much applicable to the art world – I will share with you a few examples. For instance, you can try to identify artists that have an undervalued position relative to their peer group. In the hedge fund or finance world, this is nothing other than the old notion of a relative value trade. So I studied different artists and their peers, and sometimes I could see that there were huge valuation disparities between this blue chip and another equally blue chip artist, but whose work just hadn't seen the appreciation in the United States, for instance. And therefore, it was actually at a great discount.

So I went out and identified some of those types of artists. For instance, there's Gerhard Richter, the abstract German artist and then there's also Sigmar



Polke, another artist of the same vein and same generation. So, what did I do? I went "long" Sigmar Polke and saw a great deal of price appreciation over the past five to ten years.

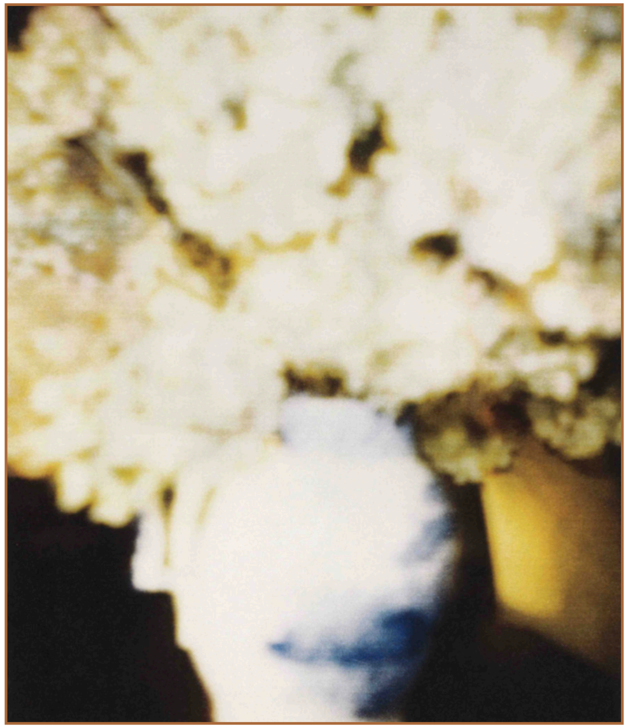
You can also apply the relative value principle when looking at the value associated with different bodies of work of the same artist in case that artist works across different media. An artist maybe a painter, but he or she may also make works on paper and drawings, or work as a sculptor, or may make photographs, et cetera. I very frequently have found great investment opportunities by looking at tier 1 blue chip artist and then assessing the relative value within in their portfolio of work and finding interesting segments that were dramatically undervalued.

For instance, I have also quite early become very active in particular in the Andy Warhol photography market. Warhol photography was central to the artist art making process. We talked about this in the previous Horizons issue. Warhol began in the 60s with photographs, Times Square photo booths strips where he would take subjects into a photo booth, create serial images of them and then turn those into paintings. He then began working with a Polaroid and later worked with a 35 mm camera all along those years. So, for three decades, 60s, 70s and 80s, the artist was utilizing photography as source material for making prints, making works on paper, making paintings.

So, I knew it was terribly important. I also saw that prints of which the artist made – maybe 250 pieces of a particular type of image – were trading at far higher value than the photographs, which were unique objects an not produced in multiples. As a relative value investor, it was very interesting to me that you could buy one of 250 that might cost $25,000 or $50,000 versus a unique object for maybe $5,000 or $10,000. That valuation disparity needed to correct, and indeed it has begun the process of correcting. I invested heavily in Warhol photographs and built a large collection which is said to be the largest private collection in the world of Warhol photographs. I've actually started to monetizing that over the course of years by selling at art fairs and through different channels.

You see, these are the types of things that are very interesting to me. I applied the same rationale to the artist Cy Twombly – obviously, one of the greatest artists of 20th century, one whose paintings go in many cases if not most cases, well north of $5 or $10 million. His works on paper are now usually over a million dollars, but his photographs have also been completely undervalued, underappreciated, and understudied.

I find that a certain contrarian view of looking at something is very applicable to many types of investing, including art. Cy Twombly photographs



had been trading for $10,000 or $12,000 a piece, and they were wonderful objects which I thought should be priced more like their peers and more in keeping with the artists' other body of work. And, lo and behold, since I began investing in Twombly photographs they have gone up more than fivefold and in some cases even much more.

So these are some or the things I like to look at or discover. What's contrarian? What is the strategy where you can find something undervalued within a very valuable artist's body of work? Or how is this artist doing compared to another artist, and looking for evaluation disparities that should probably consolidate in the future.

Matthias Knab: How does one participate in the art market? What other tools that are needed to do that?

Jim Hedges: Malcolm Gladwell's book, Outliers, talks about the 10,000 hours that you need to log in order to become an expert, ight? So, in complex domains or skills, whether it's flying an airplane or whether it's learning a foreign language, et cetera, it requires a tremendous investment of time to achieve a certain level of mastery. The art world is actually fairly easy place to learn, because everyone can get started with things like art fairs, auction houses, galleries and obviously museums. Still, the main thing people have to do to get engaged is to actually spend time and study the material and learn as much as you can. And while studying, start also to develop a point of view about what it is you'd like to or feel most comfortable investing at.

What I have started to do is looking at data analytical tools in the art space. There is such a dearth of information available on the value of artwork that I think there's a real opportunity. For example, I have been looking at resources that use machine learning to analyze historic performance and predict the valuation of a particular artwork. And in the process of using these machine learning tools, we are also able to identify momentum characteristics, we are also able to identify a group of other factors that will tell us when sentiment is changing, when there is momentum behind an artist body of work and things of that nature that will drive price appreciation. Similarly, it helps us identify when auction houses miss on their estimate, and that's a very powerful information as well because we can tell if something is going to be bought in and not sell. We can also tell when something is going to go dramatically over the estimate because the auction house lowballed it in order to encourage a lot of bidding.

But taking a step back, if one wants to get into the art world as an asset class, as a store of value, as an alternative investment, the best way to do it is to identify both a capital allocation that would be appropriate, and then go and seek out expertise that will help you identify those artists that exhibit some of the characteristics I talked about – relative value to their peers, relative value within their own body of work (and again, that has the benefit that you can assess and identify very attractive values using machine learning), and of course, allocate the capital to build a portfolio over the course of time. In art – not dissimilar from venture capital or private equity – investing across a longer time span is actually a very effective tool of making sure that you insulate yourself against market volatility in the near term.

Matthias Knab: If one wanted to go into art and follow these relative value trades and interesting opportunities that you have just described, how much money do you think is needed? And then secondly, how should those collectors or investors actually diversify?

Jim Hedges: It's very interesting to think about these questions because it's a similar discussion that I had 25 plus years ago when talking about hedge fund investing with people. You have to decide how much capital you are willing to put to work in the space. You have to decide assess what you can buy. Then you have to look at the appropriate mechanism to get exposure – meaning to invest. When I started in the funds of hedge funds business in the early 90s, managers had high minimums and many were closed to new investors. And if you wanted access and diversification, you were frequently driven to a fund of funds vehicle. That became the mechanism through which many people participated in the hedge fund world.

The art world is sort of similar – a large financial asset class with lots of volume going on, but not many people are going to buy $100 million paintings as an investment. So, how does one participate in a diversified way that gives one access to superior material? I essentially work with people on of two different paths. Either I work on a managed account basis to build an allocation to art for a family or a private bank, usually starting off at around $5 to $10 million of capital being allocated, because at that level, you can build sufficient diversification and breadth of exposure.

I have also started to work on the launch of an art fund which will have the benefit of aggregating investor capital into a larger pool so that larger dollar items can be bought and greater diversification can be achieved. But at the end of the day, if somebody wants to invest in the asset class called art, you are probably looking to invest greater than a million dollars, and at that level more likely through a fund. But if you have the ability to aggregate $5 to $10 million dollars or more, you could get a custom portfolio, or in finance speak a "managed account", which then would effectively serve as a direct exposure.

At this point I want to touch on another aspect of investing in art. What I've described up to this point has been focused on equity, meaning direct ownership of artwork. But you can also invest in the art world through debt, which also exhibits a very interesting dynamic.

I had a business that provided loans to private dealers and private collectors for many years. We provided loans and banking services to these individuals that did not want to borrow against their securities portfolio or their private bank. So they did not want to tap other sources of liquidity, but they wanted to get some value for short term cash purposes to take in against their fine art portfolio. But then, in the process of talking to people about art loans, I found that, number one, art loans were very often times being sought out by people that really just wanted to sell. And if somebody really wants to sell or really needs to sell, sometimes there can be a distressed investment opportunity. So while I was flying the flag of being an art lender and went ahead presenting them a certain set of terms, often they then would say, "Well, but I really want to achieve something else. I really like to sell the piece." That then allows you to make an offer, and many times I have been able to pick up assets at very attractive valuations.

So, there is a continuum that broadens how you can invest in art. There is buying the artwork which is effectively a long-only equity play. There is lending money where artwork is your security, and you can lend at high interest rates that are being paid on a current basis. And then finally, that art lending business usually uncovers opportunities in distressed assets.

Matthias Knab: Art funds have been around for a while, and maybe even back in your hedge funds of funds days you may have looked at some of those. What is your verdict on this fund category today?

Jim Hedges: The thing with the art fund universe is that often they have not been operated as a proper asset management or investment product, which, as we all know, for many reasons have become more and more regulated and transparent. So, unfortunately you could see a number of things that are troubling that that don't really fly in the investment world, like for example conflicts of interest. Many of these funds or the people behind them are also brokering products themselves, so they are taking commissions when they are buying and selling for the fund. Many of these people have structured their businesses in a way where enormous fees are attributed to the fund, whether it's fees for shipping, insurance, storage or management fees. You can see some very burdensome fee loads, that's no good. We live in a world of transparency where people expect a fiduciary to actually be a fiduciary. We therefore think that there is a lot of opportunity to create a fund business that is differentiated and having best practices in due diligence and underwriting, best practices in marketing and PR and looking to monetize the assets through partnerships and based on diverse strategies such as I have described them. That hasn't really been done to date.

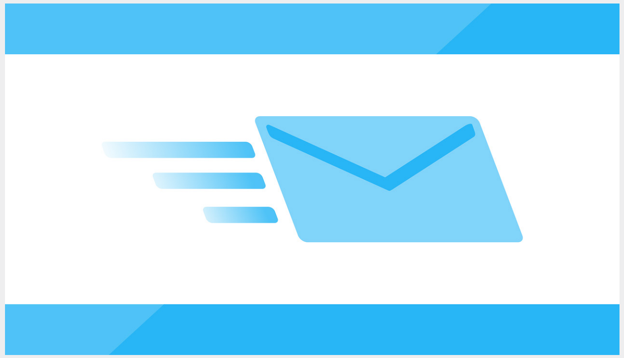
My background as an asset manager in the funds of funds space really informs my art investing activities. The importance of sound operational excellence is paramount in investing just as it is in the art world. The importance of underwriting securities properly, of assessing value, of assessing momentum, these are skills that are directly applicable to the landscape as well. So you really need to have somebody guiding the ship that has a financial orientation as well as an understanding and sophistication when it comes to the actual art.

I found the lessons that I learned over my almost three decades in the hedge fund landscape can be directly applied to this art fund activity. You need to be able to assess artists for their value. You also need to be able to assess the operational risks and cost associated with making the investment. And you need to be able to look at all different types of strategies, whether it's owning outright the equity, lending money to art collectors as art loans or buying distressed assets. That flexibility of moving across the strategies is really central to a successful art fund.

Like many segments of the investment world that are not well understood, the art world is prone to sensationalism as well. You hear people talking about emerging artist that have huge run-up and value, and then people get involved in a very speculative way only to become part of a blow up, this is certainly a bad part of the market and something to avoid.

Similarly, you hear the stories about the $100 million, $200 million paintings and people think that's indicative of the art market. But the art market I'm talking about investing in is one where you can really build a diverse investment portfolio that is multi-strategy across different sectors, different types of artists, with artists whose work is highly liquid and with a long-established track record.

There is a universe of probably a thousand artist that fit that criteria. And among those artists, you can utilize both subjective as well quantitative tools and machine learning to identifying great opportunities for value.



Email Horizons@Opalesque.com to connect with Jim Hedges about his projected art investment fund or co-investing in art.

Sustainable investing – Still a long way to go but younger generations will help to push suppliers

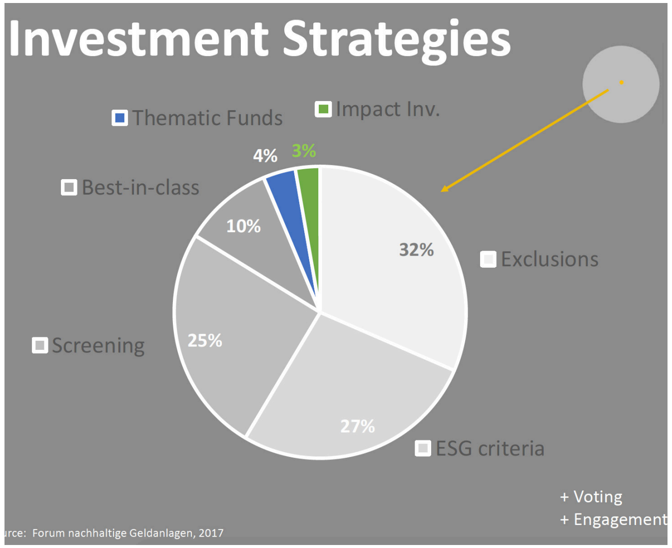
Reto Ringger

Sustainable investing is moving up the priority ladder in family offices with each generational transition, says Reto Ringger.

Ringger is the founder and CEO of [Globalance Bank](), an owner-run Swiss private bank that advises its clients independently in all matters relating to the long-term investment of their wealth.

Opalesque: What is meant by sustainable investing?

Reto Ringger: There are many definitions or ways to go about it: it could be negative screening, exclusion of companies, ESG inclusion, positive selection, thematic investing or a highly focused portfolio of companies that are active in better addressing future challenges etc.



Source: Globalance Bank

Opalesque: What are your observations with regards to sustainable investing within family offices?

Reto Ringger: My understanding of the market within family offices is that it's more focused on negative selection, exclusion lists and ESG screening.

From a governance perspective, it is very interesting: for older generations, sustainable investing it is not on top of their list, but for the next generation, as they grow up with the awareness of environmental challenges and have a much closer relationship with these issues, it is more important and more natural to consider environmental and social criteria investments. They also understand the business rationale behind such criteria.

"The next generation will have higher expectations in terms of positive impacts from their investments."

From an investment perspective, we see growing interest; it is however still at an early stage. There is little experience within family offices but also among their wealth managers. Most wealth and investment managers do not have a long experience with sustainable investing and if they do, then it's mostly negative screening or ESG inclusion. Most of them are at the starting point, without many peers to work with.

Family officers are in the process of finding their definition of sustainability investing, their approach, their expectations in terms of returns and risk, but also – and that is trickier – in terms of impact (and how to measure that). Indeed, the next generation will have higher expectations in terms of positive impacts from their investments.

Opalesque: Have you seen any correlations between charitable endeavours and foundations and sustainable investing?

Reto Ringger: Family offices usually have that split, with a team that takes care of donations and have a specific mission, be it cancer research, the environment or education. Then they have an investment team, who has a very different investment approach, that is not linked to the overall strategy of the foundation. Aligning the investment side with the mission side is still not a common practice. I know only very few foundations that are able to align their mission with the investment strategy.

Opalesque: The 2018 Global Family Office Report found that more than one-third of family offices surveyed by UBS and Campden Wealth are involved in sustainable investing, a rise of 4.2% from 2017. What are your thoughts on that?

Reto Ringger: It's a bold statement, and it does not define what sustainable investing consist of here. If it's exclusion investing, it does not mean a lot as lots of people practice that already. If they're talking about really active sustainable investing, that would be different.

In our experience, about a quarter to a third of wealthy individuals would like to consider environmental and social aspects of investing. It is known that surveys show different results from what people are actually doing. I was at a pension fund conference a couple of weeks ago where AXA did a survey about interests in such investing; 65 to 70% of pension fund beneficiaries said yes. But in reality, only between 5 and 10% of pension funds are doing that.

Opalesque: It is said the rising influence of socially-conscious millennials in wealthy families means impact investing is only set to skyrocket. Do you agree?

Reto Ringger: Again, impact investing is a different thing to different people. But I think there is a very strong market activity in that area, but there is also a lot of noise, especially from suppliers.

In my view, there is a risk of greenwashing because there is actually a strong demand, especially from the next generation, so managers need to come up with fast solutions.

The team of Globalance has done sustainability investing for the last 20 years and we find it is not easy to come up with a credible portfolio if you want to a sustainable or a positive impact. For example, we measure impact with what we call the footprint. Each of our portfolio has a footprint score and the average portfolio has a score of 63 – whereas the MSCI World Index stands at 43. Our clients want to improve their footprint every year; from a portfolio management perspective, going from, say, 60 to 70 has a large impact on the portfolio management, on the investment selection, on the research process. So it is not easy to execute and meet those expectations.

Opalesque: What procedures do they follow when they do impact investing?

Reto Ringger: Globalance follows a very structured and comprehensive engagement process to establish a family's values, ambition and priorities. Family members and family office staff are involved independently and together at various points along the journey.

First, families should agree on a certain set of values and impact principles as well as levels of ambition. This needs to be written down, a "family constitution" so to speak. Second, all existing assets of a family's wealth are carefully assessed for their current impact-quality to obtain a comprehensive picture. Only then starts the definition of next steps in the form of investment strategies and corrections to the way a family's wealth is managed.

Positive Footprint

Bonds
- Green Bonds
- Microfinance

Equity
- Positive Footprint
- Solution Providers
- Private Equity

Real Assets
- Infrastructure
- Real Estate

Alternatives
- Project Finance
- Long/Short Portfolios
- ILS (Climate)
- Factoring SME

Source: Globalance Bank

Opalesque: We also hear that family offices with a social impact mission have become magnets for young investment talent. Have you seen this?

Reto Ringger: From what I can see, that is generally the case, in and outside of family offices. The mission of employers is important for young people, not only in terms of the product and daily work but also in terms of what is behind the organisation.

We have a challenge ahead. The October IPCC special report on the impacts of global warming from the UN, among other things, alerted us to that. It shows us that asset management, compared to other sectors, is lagging behind. We still have a long way to go, but younger generations will help to push suppliers.

Peter Kellner: Asset allocation and machine learning lift ESG multi asset portfolio to massive outperformance

Peter Kellner

After a 3 year data science build creating a deep competitive edge in the use of non-financial metrics, Peter Kellner and his all-star team managed to combine two of the most critical megatrends of the 21st Century : Integrated Sustainable Investing & Artificial Intelligence in a multi-asset strategy which is up net 30.7% since June 2017 inception. In this feature we are looking what's behind this remarkable success.

Matthias Knab: As a start, Peter, tell us a bit of your background and you got started with ESG?

Peter Kellner: I first got involved with ESG and sustainability through my lifelong mentor, a man named Bill Drayton. He is the founder of Ashoka which is the largest organization globally of social entrepreneurs. I met Bill when I was at Princeton in college. Bill has been responsible for creating some of the most impactful social organizations around the world, like Teach for America and City Year. He inspired the founders, and he inspired me to try to live a purposeful life. I knew I always wanted to be in finance but I also knew following him that I wanted affect change.

And so, right after college I went to Hungary, to Central Europe which is where my family originally is from. I was on a Fulbright scholarship and I was struck by the state of the environment and the way the Soviets had left Hungary, which was very devastated. I set up an environmental policy organization there that I modeled on the Natural Resource Defense Council, which is an organization that I followed when I was a teenager in the United States, a very large and important organization. I was able to bring together Hungary's top scientists, journalists, economists, lawyers to do interdisciplinary reform of the environment and the transition to a market economy. We actually ended up as an organization writing the environmental evaluation for the approximation program for Hungary to ascend to the European Union.

Today, about 26 years later my organization is perhaps the most influential organization in Central Europe, training judges, prosecutors, writing laws. It also has become global, it works with the World Resources Institute and others, and I am still involved and contribute to it. That was my major first involvement in sustainability.

Bill Drayton

My second one was also guided by **Bill Drayton.** I traveled with Bill to many places after college, specifically Latin America. I developed an interest in Ashoka's model to identify social entrepreneurs who would have a high impact. I loved that idea because I was also business-minded, and it was clear to me from my work at undergraduate and just living abroad as I have been doing in Central Europe and Russia, that entrepreneurs were going to be solving the problems in the emerging world.

If you think back to the '90s, the emerging world was truly emerging then, with massive growth of the middle class across the board, and a lot of it was driven obviously by the internet and the surge in technology. I co-founded an organization called Endeavor with a woman who at the time was working for Bill Drayton at Ashoka. I spent years building that organization on the ground in Latin America and then I helped expand it into the Middle East and ultimately into the United States. My agreement with my co-founder was that I would go onto a career in finance and entrepreneurship but stay involved with the organization at the board level. The organization is now in 33 countries around the world and doing impressive work in terms of the entrepreneurs and supports. Last year, those entrepreneurs generated $16 billion in revenues and has created over a million jobs.

And so indeed, I did turn to finance, and my day job for the last two decades has been Venture Capital and entrepreneurship. I've built some companies and have also been an investor in some wonderful companies in the early stages, companies like Salesforce, Learnvest, AdChina, Dataminr and others. I've always loved to work with entrepreneurs. My specialty is in financial services and and data, and their nexus. In fact, for the last fifteen years I've been focused on data science, beginning at a time when data science and machine learning weren't the headline every day.

Because of my passion for sustainability, I had the idea many years ago to see if I could figure out a methodology to use data science to identify what we call material environmental, social and governance (ESG) metrics that you could then apply to asset classes to generate Alpha and also minimize risks and liabilities when you were doing your financial analysis. This was public securities because my world has been private securities. I explored the world of sustainability and investing today, it's largely private, 95% of it is private.

If you look at the world of active public investment in sustainability, it's only 4% - 5% of the $180 trillion global liquid capital markets and that's net of derivatives and OTC, another $700 trillion plus. There's this disequilibrium where you can potentially have a massive leverage in the public markets but it's barely penetrated. *I wanted to figure out a strategy to penetrate those very large markets with the most impactful strategy I could think of: using machine learning – which in the end is data science – to identify ESG metrics.*

Here it is important to understand that ESG metrics as they are today, in early 2019, are terrible. They are self-reported by companies, with many vanity metrics. They are non-periodic – the time series is generally not particularly well put together, and it's not well-weighted. The metrics providers we have today don't have particularly good information. If someone is actually saying they are using ESG metrics for alpha creation in their investments, that's not a credible claim unless – and this was my hypothesis which proved true since we started trading – you are actually using data science to identify those material ESG metrics that can be non-financial and sometimes financial metrics that affect financial performance.

If a corporation does a 10 kilometer run on a weekend for its employees, they may contribute that toward their ESG metrics. However, that's not really a material ESG impact. It may be good for the brand in some minor way. But if the same company - say it's a bank or a real estate holding – has 10% of its US real estate portfolio in recurring flood zones, well that's a material ESG metric.

But most financial analysis is not looking at such particular metrics and off-balance sheet items. However, those factors are incredibly important in the generation of Alpha which has been proven out academically by **George Serafeim** of Harvard Business School, who is also on our board and advisors at our fund. Professor Serafeim showed that if you use a materiality lens when looking at ESG, you can generate more than 6% in additional Alpha. This approach also minimizes your downside because you'll be looking at liabilities or regulatory concerns which otherwise may not get identified.

George Serafeim

With my approach, I brought a couple of different things together. I looked at the disequilibrium of market size and the ESG adoption of both private and public sustainable initiatives and focused on the public securities as the domain where we need to engage ourselves now if we are going to have any chance of turning back the tide of climate change. And in doing so, what is the most interesting, largest sizable strategy I can pursue?

All strategies today pursuing ESG in the public markets are predominantly long-only equity, maybe with a little credit. I went out and did on my own data science study in 2014 and to 2015 looking at securities in Western Europe, the United States, as well as sovereign securities, to see if we could use machine learning identify Alpha. The results were stunning in terms of the p-values, the correlations, the sharp ratios, etc.. We were able to show that one could find material ESG both in corporate as well as sovereign categories. This got me terribly excited.

So, I founded a firm to trade a multi-asset strategy. What's exciting about this approach is that such as any active manager, we want to deliver superior performance, which we have been doing. However, we do that through the integration of material ESG metrics, and so we together with our investors are accomplishing two ends. First, we are not sacrificing performance to get to a contribution to planetary sustainability. We are actually using the very same mechanisms that you need to ensure planetary sustainability, to generate superior performance. It's a beautiful business model. We are also investing in the gigantic public markets with a strategy – multi-asset – that has no limit on your assets under management. The only limitation you have is your rate of growth. If you're a long-only strategy and there some wonderful ones out there, you're actually going to be limited in how sizeable you can be because markets are only so deep for those strategies.

We look across the world. We look at every asset class. We're able through our machine learning platform that we spent a lot of time developing – a substantial proprietary platform that both cleans data sets that are out there, generates new data sets, new algorithms. We use that to provide our traders' information to be more intelligent when they are making a decision about an asset, and how ESG -- material ESG relates to that asset. We're not a quant fund and we don't want to be confused for one. A quant fund is a very different animal. We are using quantitative technologies to augment our knowledge of trading, so human beings can actually carry out those functions. I don't really think that, today, there's a way you could ever use 100% machine learning or AI to find ESG, because at least 20% of ESG metrics are very qualitative and they require that kind of sourcing.

If have to put a ribbon around it, you have the recognition that if we're going to make real change, we have to take on the global capital markets and we have to do so in a way where we can attract investors to the idea through superior performance. We can achieve that by using the methodologies of integrated ESG investing, because by now it has been proven that material ESG metrics generate Alpha and limit your liabilities.

Matthias Knab: Peter, this fascinating because I see that with your methodology, you're actually addressing some of the structural and procedural problems that ESG has at the moment.

Can you tell us more about your process, and where would you draw the delineation line to impact investing?

Peter Kellner: Let me point out first that for me, impact investing is an asset class whereas integrating

ESG into your financial analysis is a methodology which can create Alpha and mitigate your liabilities. They are entirely separate. Our strategy is not impact investing, which as you know runs a spectrum from purely philanthropic to seeking market returns, but always with a social end in mind. We are different in that we actually use the benefits of contributing to planetary sustainability through identifying these key ESG metrics that go into our financial analysis that produce superior returns.

It is a very different proposition wherein we're not sacrificing in any way return for social good. We are augmenting return and social good. But what we do is not within an asset class. Structural challenges that exist today have to do primarily with the research with the information available, which is not standardized – like I said it's non-periodic, it's self-reported, it's in general very bad.

That's one of the primary issues we have. There are also people who are very much in disagreement over what are the actual material metrics for a given asset class, so there is a lot of disagreement which really is based around the lack of standardization. That is something that has to evolve in the market.

We feel we addressed these two issues through the development of our proprietary technology, because what it allows us to do is to find that needle—in—the—haystack, to find those typically four to six material ESG metrics that apply to a corporate or sovereign asset. In doing so, we can be consistent, so we can contribute to the process of standardization across the industry. We can identity a line of sight from A to B that our identification in that particular metric produces that Alpha and that positive change. **It's highly measurable, and measurement is another structural challenge across all impact investing and integrated ESG investment.** We are addressing this through machine learning and through also by the combination of our technology with our team.

I should also make a point here about the strength of our team. They are fantastic, every member of our team is certified in the FSA which is the sustainability accreditation that's equivalent to the CFA. Every member of our team has taken the Level I & II FSA, which is under SASB, which was started by Michael Bloomberg. SASB is like FASB but for the sustainability sector. All our team members have deep knowledge of ESG through having gone through this accreditation. It's not like we have our environmental people over here, who may have studied environmental science but have no financial background and they integrate with our trading team over here who are really excellent traders but don't really understand ESG and they come together and figure things out. No. We have an integrated team that is profoundly good at what they do in financial analysis and investing, but they also have very deep backgrounds in ESG.

With our strategy, we find ourselves highly differentiated along many aspects of the ESG spectrum and fund management. For one, we are to our knowledge the first to create a global ESG multi-asset fund. The second is that we are using proprietary machine learning that we have developed with a great team of data scientists, to identify material ESG factors that affect financial performance, drive Alpha and minimize liabilities. We are also using a hybrid process where we combine exceptionally qualified teams with our technology. That is something that very few firms are doing.

These are the things that I believe differentiate us from other funds right now, and frankly, I encourage other funds to get into our business because that's how we are going to change the world. The other aspect why we don't really fear competition is that we believe we have already built a relatively wide moat in terms of our understanding of sustainability and the appropriate metrics together with our proprietary technology and its capabilities.

We believe that we have very differentiated products and strategy, but apart from the superior returns that investors can enjoy, it is also very needed. And here, our appeal is not to your heartstrings, but really to your rationality, Sustainability is the most important mega trend of the 21st century – we are facing major challenges and continue heading toward a cliff. How are we going to address that? My view is that the capital markets are the solution. As I tried to explain, throughout my life I have had a history of believing that capitalism can drive massive change, and I mentioned the Endeavor organization as example which I co-founded.

In the same way, I believe capital markets are likely giving us our highest probability of a course correction in environmental degradation. That's not to say governments and NGOs are not important – they are very important. But capital markets have not been tapped yet to do this work and yet they are so sizable and so influential. The capital markets possess an enormous palette of tools with which to invest across the world in different nations, in different sectors and categories.

This is important to mention as I believe we are never going to run out of ideas. We know that in the world of hedge funds and finance, investment strategies are usually limited and that Alpha can decay very quickly. People run out of ideas, and often close their funds or if they made enough money, convert into a family office. I think that this ESG strategy is a gift. There will always be numerable ideas and strategies you can pursue, whether it's green bonds, real estate, or in better supply chain, in different asset classes. You can apply this to currencies just as you can apply this to equities. It's truly amazing.

Despite all the feel-good aspects of it, it's really critically important to understand that this ESG strategy, at least how we understand and run it, is not based in some philosophy or moralistic point of view, but on empirical research. Professor Serafeim from Harvard Business School, who is on our advisory board, is the world's leading ESG analytics professor who already in 2015 authored a paper published called the "First Evidence In Materiality", where, as I noted, he demonstrated statistically that you can increase Alpha by focusing on material ESG in your corporate security selection. This is empirical and I put a lot of resource into my own study where we worked with a very well-known data science firm for over 12 months to see that this was applicable, not just a corporate equities and debt, but also to sovereign asset classes.

This is an **empirically based strategy** – it works, it's credible, and I believe our returns reflect that. Since inception 19 months ago, in June 2017, we are +28.32% net, having finished 2018 +9.99% net.

Matthias Knab: Looking forward, how do you see the ESG space further develop?

Peter Kellner: We believe that within about 15 years, the integration of ESG into financial analysis is going to be normal. Today, it's not and there's a lot of resistance to it, there's a lot of short-termism in the market place amongst CEOs that look at quarterly earnings calls, there's a lot of pressure on the very things that prevent an ability to have a longer bias. But when you are trying to invest in sustainable assets and apply a sustainability lens, you need a longer period to accomplish that – you need three to five years to start implementing your strategies and also until the companies you invested in get results from the business plans that they have created around sustainability.

We mentioned that in the world of hedge funds it is kind of standard for managers to pile into ideas that over time those returns to be arbitrage away as everybody piles in.

In this particular area, the opportunity for return seems to me to be infinite because the possibilities for creative investment are infinite. We have really just begun, and the more people pile in, the better we are all because it validates the space. Still a lot of people, particularly in the US versus Europe, question ESG and its relevance. Professor Serafeim of Harvard Business School did a study on this looking at asset managers in the US and Europe, and he demonstrated that in Europe asset *managers recognized ESG as something that both enhances return and mitigates risk. When they get asked the question, "Do you contemplate ESG?", they say, "Why are you asking the question? Of course, we do!"*

In the US, the managers in his study, who were managing 10s of billions of AUM, tended to say, "In large measure, we approach ESG when our limited partners asked us to do so," but they themselves don't really tend to recognize the intrinsic value.

Matthias Knab: Tell me more about your portfolio construction process.

Peter Kellner: Portfolio construction is actually designed by my partner and CIO, Decio Nascimento. Decio is remarkable, allow me to introduce him here with a few words. We met completely fortuitously through a mutual friend at Paulson. Decio had started his career at Goldman Sachs, trading derivatives when he was putting himself through The London School of Economics. After that he went to Brazil, he is Brazilian originally and worked for Luis Stuhlberger at the Verde Fund – one of the most successful macro funds in the world.

Decio Nascimento

Matthias Knab: Bloomberg called Luis Stuhlberger "Brazil's 15,000% hedge fund legend". He is generally not that well known, however I have been aware of him for a long time as I have been to Brazil a number of times and dealt with hedge funds there.

Peter Kellner: Right, and so you would probably like to hear that Decio was Luis' right-hand person 24/7, and so that was where he learned his trade and Luis' philosophy and his approach to investing. Decio then wanted to move to New York, however Luis did not at that time want to set up an office here and so Decio joined 3G Capital, which is a well-known and successful firm who principals own by Anheuser-Busch. They acquired Heinz and Kraft and Hortons and others, and are very successful investors.

At 3G Capital, Decio helped to run their liquid strategy and was responsible for macro. Decio then took a sabbatical because he had literally been working since he was 18. We met just as to New York, exactly when I had finished that proprietary data science study that I talked about that corroborated my thesis about materiality in ESG metrics as applied to corporate and sovereign asset classes.

At that time, Decio had offers from significant macro funds, but he wanted to do something impactful. He told me, "In my time off, I have been thinking about it, but I couldn't figure out a way to use my skills to do something impactful," and I said "Well, here's an idea, why don't you join me and we can take your deep skills in multi-asset fund management, and combine them with ESG."

We have an institutional scale back office today, focusing on risk, compliance, cyber security – you name it. Decio took over the portfolio construction and I built and manage the team strategy, including our data science. Decio was also part of the first cohort of the The Sustainability Accounting Standards Board's Fundamentals of Sustainability Accounting (FSA) credential, so he was in the first class to qualify and he made sure that everybody we hired thereafter in the firm got that accreditation. More than that, he went and took the MBA in sustainable finance at Yale, which is taught partially by one of our advisor board members, Dan Esty, who was also my professor at Yale Law School. Dan is one of the foremost well-known professors in environmental law in the world.

Decio and I began to build that machine learning platform from the get-go, together with Erik Allen who is our AI director, and advisory board director, an MIT PhD in Artificial Intelligence. We did it through phases with a team of seven full-time data scientists. In the first two phases, we were able to do all the scrubbing of datasets and then the creation of new data and all the interpolation to identify those critical material ESG factors.

We are now in that third phase and developing what we have called the Compass Materiality Dashboard. This is to my knowledge the first dashboard of its kind with respect to ESG metrics and publicly trades corporate and sovereign securities. It will enable us to identify each of those four to six key material ESG metrics – E, S and G for every asset class that we look at. I personally think that this is stunning breakthrough in investment and market intelligence.

Decio is in charge of portfolio construction, which is all about asset allocation. His process is a top-down, traditional approach where we are looking at the big blocks, ECB, BOJ, China, the Fed, and their interest rate policies which affect everybody else. Then we drill down from nations to sectors and then down to specific companies.

At every level of our analysis from the macro to the idiosyncratic, we are also integrating ESG. When we are looking at sovereigns for example, beyond the macroeconomic work that we do to establish what's going to happen to the world, are there going to be rate hikes, et cetera, we are also looking at what we call "the health and wealth of nations." For that, we are using indices that are non-GDP focused. Of course, we do use GDP-focused, traditional measurement, but also non-traditional GDP indices. One important one that we're using is called the **Social Progress Imperative** founded by our colleague, Michael Green, and our fund has a formal collaboration with SPI.

SPI has developed these comprehensive indexes across the world, measuring nations and down to the municipality level in different dimensions such as children's access to education, primary, secondary, higher educational access too, corruption levels, women's rights, environmental degradation. The list goes on and on and on, and while these are not standard GDP measures, they give you a view of the health of a particular nation.

If you combine that with the traditional monetary indicators, you then can get a rich picture of a country when looking at it from the ESG perspective.

Apart from this traditional top-down construction we also have a more technical management of the cash book and the trade book that we engage in. The cash book for example, we'll have an expected yield, say 10%, and that's going to be dividends in capital appreciation, equities and debt. The trade book will be derivatives. We'll have our expected yield in the cash book and that way, we'll size the trade book. Let's say, at 6-8%. In the trade book, we will put on asymmetric trades 3 to 1, 5 to 1, 10 to 1, 20 to 1. Based on the performance of those trades, we can have very large pay outs if we just hit two or three of them. It's also a way for us to invest without having too much cash exposure.

As investors, we have a long-term horizon and aim to have a low turn over in our portfolio. *When Decio and I came together in 2016, I remember him saying to me, "I anticipate four rate hikes, by the end of 2018 and a meltdown in the emerging markets. I think we should position the portfolio for that," which is precisely what played out, by the way.* So, we were well-protected against some of the volatility that happened end of 2018 and were able to end the year with a strong net return.

Cybersecurity – Expert entreats: Do NOT use the same password

Cyrill Brunschwiler

Cyber security expert Cyrill Brunschwiler gives some advice on cyber security for family offices ranging from passwords, non-computer devices, the right cloud solutions to the weakest links.

Brunschwiler is managing director at Compass Security, a cyber security firm with offices throughout Switzerland and in Berlin.

Opalesque: What recommendations would you make to family offices regarding cyber security?

Cyrill Brunschwiler: If you consider the business case of a family office, it does not differ much from an investment company or trust. However, contact in a family office is very personal and this is of course a good prerequisite for recognizing social engineering attacks. Basically, one can say that families that are in the public eye have an increased risk.

But in most cases, family offices hardly differ from other service providers in terms of their IT infrastructure and are therefore also susceptible to the same threats such as infiltration by Trojan horses or against encryption of documents by Ransomware.

Opalesque: Anything they should not do?

Cyrill Brunschwiler: People often use the same password everywhere. That is a severe problem. Some time ago, a Swiss online merchant was accused of losing usernames and passwords after it was found that many valid login attempts were made for Swiss accounts from foreign locations. It then turned out that the same several thousand accounts had been lost at another company. Obviously, the users had the same username (email address) and password. For the hacker, it is clear as daylight that if you have an email address ending in "ch", you probably also have an account with the major Swiss online shops. For this reason, you should use different passwords.

Opalesque: What about security when using multiple devices?

Cyrill Brunschwiler: Smartphones and tablets are very different from standard computers. Each application is isolated in itself. This is also called a sandbox. Therefore, the apps cannot easily access files from other apps. It is safer to do your online banking on the iPad than on your laptop because it is much more difficult to infect such a device with malware.

Zerodium, a company that specializes in dealing with vulnerabilities, buys information on identified vulnerabilities and on how to exploit them. Subscribers to Zerodium's feed get that information to tailor defence and offense tactics. Currently, $0.5 million is claimed to be paid for a vulnerability that allows full control over the Windows operating system. In comparison, $1.5 million is offered for the same functionality on the Apple iOS platform. The amount of these bounties confirms the claim and give an idea of how difficult it really is to remotely control a mobile device without user intervention.

Opalesque: Cloud solutions, how secure are they?

Cyrill Brunschwiler: The term cloud is ambiguous. I understand "cloud" to mean that you no longer know exactly where the service is running; it could be in an Irish data center in the morning, then in the room next door in the afternoon and in a Japanese data center at night.

Since the services are partly operated in foreign jurisdictions, data protection laws are a central issue. Maybe you do not want your data to be in a foreign location. Luckily, large cloud providers have started to set up Swiss data centers - where the cloud data is then stored in Switzerland.

I recommend every small business to opt for cloud-based services at one of the mayor players like Amazon, Microsoft, Google or Alibaba, if data protection and privacy requirements permits. The big ones employ very reputable cyber security teams that are responsible for the entire infrastructure on a permanent basis. You will never get such service from a niche or local provider.

Access regulations are the most important things to consider when using cloud services. Cloud services can be used from anywhere in the world. Following that, corporate data can be accessed with a username and password from outside the company. It is therefore a good idea to protect access with a second factor (e.g. SMS or app) as is the case with e-banking. In addition, you should keep a watchful eye on those who leave your company. It is imperative that the permissions of resigned employees are immediately revoked.

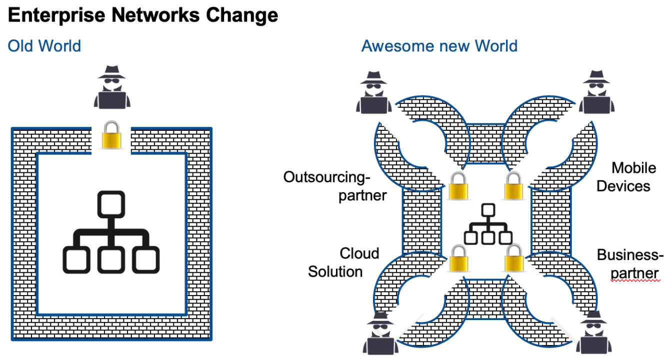
Opalesque: Business and outsourcing partners: what security risks do they pose?

Cyrill Brunschwiler: Business partners are often imitated in social engineering attacks. This means forging documents with the CI/CD of the business partner or sending forged emails with the sender for example.

> ***"Keep a simple rule in mind. The attacker takes the path of least resistance. So, all elements in the chain have to be secured."***

Currently, attackers use cracked email accounts to send fake invoices or money orders to the accounts' business partners. It even happens that hackers delete an invoice from the inbox, modify the PDF such as providing it with a different IBAN (International Bank Account Number) and put the forged invoice back into the inbox. We have observed and analyzed quite a number of such cases this year. We are talking large 6-digit amounts. The ROI of such an attack is both absolutely fantastic and totally scary.

Whenever you consider investments into measures, keep a simple rule in mind. The attacker takes the path of least resistance. If a company is difficult to attack, then perhaps the IT service provider poses an easy gateway to the company. So, all elements in the chain have to be secured - because a chain is only as strong as its weakest element. Thus, do not put all your money on a single bet.



Source: Compass Security

Opalesque: Could you give us an example of a past family office cybercrime that can serve as a warning?

Cyrill Brunschwiler: We worked on a case this spring where the company's core database was encrypted by a standard Ransomware. A decryption of the data was not possible as the backup got encrypted too. As a result, the external IT service provider did not have any hope of recovering the data and started formatting the system. Fortunately, one of the hard disks was corrupt and we were able to reconstruct the database from shadow data over the weekend. On top of that, my colleagues had to restore the application, because the manufacturer did not have that specific version anymore. This example shows the potential that certain companies have when it comes to cyber security.

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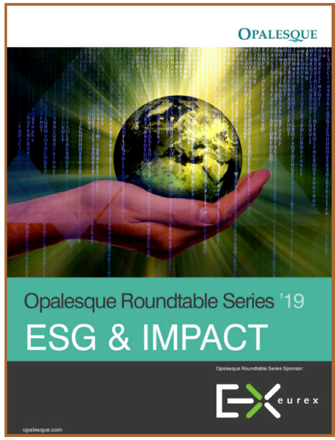

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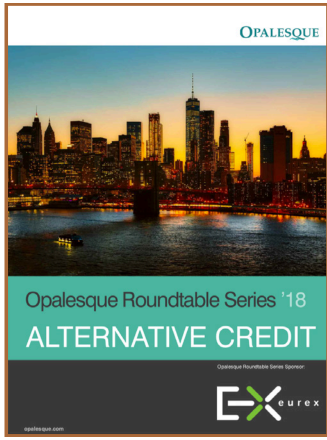

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Dr. Indraneel Das is the Principal & Portfolio Manager of Pearl Brook Capital Management, an alternative asset manager headquartered in Tampa, Florida, focused on small & mid-cap equities globally ("Alpha Without Borders"). Pearl Brook's anchor investor is a highly-regarded businessman and former fund manager.

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