

WEALTH

THE CAPCO INSTITUTE  
**JOURNAL**  
OF FINANCIAL TRANSFORMATION

TECHNOLOGY

---

The future of asset management  
– a technological perspective

PASCAL R. NÄGELI

WEALTH & ASSET  
MANAGEMENT

---

#51 APRIL 2020

# THE CAPCO INSTITUTE

---

## JOURNAL OF FINANCIAL TRANSFORMATION

RECIPIENT OF THE APEX AWARD FOR PUBLICATION EXCELLENCE

### Editor

**Shahin Shojai**, Global Head, Capco Institute

### Advisory Board

**Michael Ethelston**, Partner, Capco

**Michael Pugliese**, Partner, Capco

**Bodo Schaefer**, Partner, Capco

### Editorial Board

**Franklin Allen**, Professor of Finance and Economics and Executive Director of the Brevan Howard Centre, Imperial College London and Professor Emeritus of Finance and Economics, the Wharton School, University of Pennsylvania

**Philippe d'Arvisenet**, Advisor and former Group Chief Economist, BNP Paribas

**Rudi Bogni**, former Chief Executive Officer, UBS Private Banking

**Bruno Bonati**, Former Chairman of the Non-Executive Board, Zuger Kantonalbank, and President, Landis & Gyr Foundation

**Dan Breznitz**, Munk Chair of Innovation Studies, University of Toronto

**Urs Birchler**, Professor Emeritus of Banking, University of Zurich

**Géry Daeninck**, former CEO, Robeco

**Jean Dermine**, Professor of Banking and Finance, INSEAD

**Douglas W. Diamond**, Merton H. Miller Distinguished Service Professor of Finance, University of Chicago

**Elroy Dimson**, Emeritus Professor of Finance, London Business School

**Nicholas Economides**, Professor of Economics, New York University

**Michael Enthoven**, Chairman, NL Financial Investments

**José Luis Escrivá**, President, The Independent Authority for Fiscal Responsibility (AIReF), Spain

**George Feiger**, Pro-Vice-Chancellor and Executive Dean, Aston Business School

**Gregorio de Felice**, Head of Research and Chief Economist, Intesa Sanpaolo

**Allen Ferrell**, Greenfield Professor of Securities Law, Harvard Law School

**Peter Gomber**, Full Professor, Chair of e-Finance, Goethe University Frankfurt

**Wilfried Hauck**, Managing Director, Statera Financial Management GmbH

**Pierre Hillion**, The de Picciotto Professor of Alternative Investments, INSEAD

**Andrei A. Kirilenko**, Reader in Finance, Cambridge Judge Business School, University of Cambridge

**Mitchel Lenson**, Former Group Chief Information Officer, Deutsche Bank

**David T. Llewellyn**, Professor Emeritus of Money and Banking, Loughborough University

**Donald A. Marchand**, Professor Emeritus of Strategy and Information Management, IMD

**Colin Mayer**, Peter Moores Professor of Management Studies, Oxford University

**Pierpaolo Montana**, Group Chief Risk Officer, Mediobanca

**Roy C. Smith**, Emeritus Professor of Management Practice, New York University

**John Taysom**, Visiting Professor of Computer Science, UCL

**D. Sykes Wilford**, W. Frank Hipp Distinguished Chair in Business, The Citadel

# CONTENTS

## INVESTMENTS

---

### 8 **SeLFIES: A new pension bond and currency for retirement**

**Robert C. Merton**, Distinguished Professor of Finance, Nobel Laureate – Economics 1997, MIT Sloan School of Management

**Arun S. Muralidhar**, Co-founder and Client Portfolio Manager, AlphaEngine Global Investment Solutions LLC

### 20 **Robo-advice and the future of delegated investment**

**Christoph Merkle**, Associate Professor, Aarhus University

### 28 **Wealth management in the age of digital assets: How financial advisors can find opportunities amongst disruption**

**James McDonald**, Senior Consultant, Capco

**Tyler Salathe**, Senior Consultant, Capco

### 34 **The E.U. alternative investment fund industry: Insights from AIFMD reporting**

**Antoine Bouveret**, Senior Economist, European Securities and Markets Authority

**Massimo Ferrari**, Economist – Markets and Investors Team, European Securities and Markets Authority

**Steffen Kern**, Chief Economist and Head of Risk Analysis, European Securities and Markets Authority

### 44 **Consideration on better tokenization practices and regulations concerning investor protection**

**Yuta Takanashi**, Senior Fellow, Georgetown University

**Shin'ichiro Matsuo**, Research Professor, Georgetown University

**John Jacobs**, Executive Director, Center for Financial Markets & Policy, Georgetown University

**Eric Burger**, Research Professor, Georgetown University

**Clare Sullivan**, Visiting Professor, Georgetown Law Center, Georgetown University

**James Angel**, Associate Professor, Georgetown University

**Tatsuya Saito**, Assistant Manager, Center of FinTech, Corporate Planning Division, Mitsubishi UFJ Trust and Banking Corporation

**Toshiki Hashirisaka**, Senior Manager, Center of FinTech, Corporate Planning Division, Mitsubishi UFJ Trust and Banking Corporation

**Hirotochi Sato**, Vice President, Digital Transformation Division, MUFG Bank, Ltd.

# TECHNOLOGY

---

- 57 Digital disruption – a CEO's survival guide**  
Jet Lali, Chief Digital Officer, State Street Global Advisors
- 67 Applying artificial intelligence in finance and asset management: A discussion of status quo and the way forward**  
Juergen Rahmel, Chief Digital Officer, HSBC Germany
- 75 Front office efficiency: Improving business development and increasing sales**  
Ingo Rauser, Senior Partner, Switzerland, Capco  
Tobias Wehrli, Senior Consultant, Switzerland, Capco
- 81 Client preferences for digitization and ecosystems in wealth management**  
Teodoro D. Cocca, Professor, Chair for Wealth and Asset Management, University of Linz, and Adjunct Professor, Swiss Finance Institute
- 93 The future of asset management – a technological perspective**  
Pascal R. Nägeli, Managing Partner, IAM Innovation Lab AG
- 98 Transforming insurance settlements: Real-time processes through blockchain, Internet of Things, and explainable AI**  
Md Mamunur Rashid, Senior Research Fellow, Consumer and Organizational Data Analytics (CODA) Research Centre, King's College London  
Stuart J. Barnes, Chair in Marketing, Consumer and Organizational Data Analytics (CODA) Research Centre, King's College London  
Md Abdur Rahman, Associate Professor, Department of Cyber Security and Forensic Computing, University of Prince Mughni

# ESG

---

- 115 Human capital and the future of work: Implications for investors and ESG integration**  
Sakis Kotsantonis, Co-Founder and Managing Partner, KKS Advisors  
George Serafeim, Charles M. Williams Professor of Business Administration, Harvard Business School, and a Co-Founder, KKS Advisors
- 131 Integrating climate transition risk into investment portfolios**  
Michael Lewis, Head of ESG Thematic Research, DWS Group GmbH & Co. KGaA  
Carsten Keil, Head of ESG Engine & Solutions, DWS Group GmbH & Co. KGaA
- 139 Shaping a sustainable economy: A bird's eye view of the E.U.'s ESG reform project**  
Caitlin McErlane, Partner, Financial Services Regulatory, Baker & McKenzie LLP
- 149 ESG and the duties of investment managers examined**  
Daniel Nevzat, Manager, Government Relations and Public Policy Practice, Norton Rose Fulbright LLP  
Imogen Garner, Partner, Financial Services Group, and Head, Buy-side Regulatory Practice, Norton Rose Fulbright LLP
- 155 Greta's expectations – we must all be stewards now!**  
Eoin Murray, Head of Investment, Hermes Investment Management
- 163 Regulatory implications of ESG Investment**  
Luke O'Leary, Associate, White & Case LLP  
Mindy Hauman, Professional Support Counsel, White & Case LLP
- 171 ESG investing in emerging markets**  
Panos Seretis, Head of ESG Research – EMEA, MSCI  
Zoltan Nagy, Executive Director, Equity Core Research, MSCI  
Ric Marshall, Executive Director, ESG Research team, MSCI
- 180 Regulating ESG investing the E.U. way**  
Aron Szapiro, Head of Policy Research, Morningstar  
Andy Pettit, Director of Policy Research, EMEA, Morningstar



**DEAR READER,**

Welcome to edition 51 of the Capco Institute Journal of Financial Transformation.

The global wealth and asset management industry faces clear challenges, and a growing call for innovation and transformation. Increased competition, generational shifts in client demographics, and growing geopolitical uncertainty, mean that the sector needs to focus on the new technologies and practices that will position for success, at speed.

There is no doubt that technology will be at the forefront of a responsive and effective wealth and asset management sector in 2020 and beyond. The shift to digitization, in particular, will see the speeding up of regulatory protocols, customer knowledge building, and the onboarding process, all of which will vastly improve the client experience.

This edition of the Journal will focus closely on such digital disruption and evolving technological innovation. You will also find papers that examine human capital practices and new ways of working, regulatory trends, and what sustainability and responsible investment can look like via environmental, social and corporate governance.

As ever, I hope you find the latest edition of the Capco Journal to be engaging and informative. We have contributions from a range of world-class experts across industry and academia, including renowned Nobel Laureate, Robert C. Merton. We continue to strive to include the very best expertise, independent thinking and strategic insight for a future-focused financial services sector.

Thank you to all our contributors and thank you for reading.

A handwritten signature in black ink, appearing to read 'Lance Levy', with a stylized, flowing script.

Lance Levy, **Capco CEO**

# THE FUTURE OF ASSET MANAGEMENT – A TECHNOLOGICAL PERSPECTIVE

PASCAL R. NÄGELI | Managing Partner, i.AM Innovation Lab AG

## ABSTRACT

This article looks at the major challenges facing asset managers and what they need to do to stay relevant. Most asset managers will contend that the environment in which they are operating is changing rapidly, and that they need to adapt. It is true that technology is evolving and that they need to keep abreast of how it impacts the industry, however, having the latest technology will not be enough. To be successful, asset managers need to better manage their corporate cultures, have a rigorous focus on clients, and update their business models.

## 1. INTRODUCTION

The asset management industry has undergone very little change, if at all, over the past 40 years. And, it has not felt the need to change. It is a necessity of modern life, since most people lack the necessary expertise needed to manage their own wealth, and hence delegate these duties to established players. Economies of scale and high legal and regulatory obligations have also helped keep new entrants at bay. Protected by a relatively stable environment, asset managers have tended to focus primarily on optimizing their existing business models and developing products that met increasingly tightening regulatory requirements and slightly changing client needs. While doing so, they earned a lot of money. And since the status quo is working quite fine, innovation was not deemed very important.

But different factors may cause a change in this attitude.

## 2. FACTORS FORCING CHANGE IN THE ASSET MANAGEMENT INDUSTRY

### 2.1 Macro-economic and industry trends

In an environment of global quantitative easing and increasingly correlated markets, alpha is becoming hard to generate. And, automated passive investing products offer simpler and lower-cost alternatives to arduous research and product selection. The trend of switching from active to passive products will

gain even greater momentum, leading to compressed margins and increasing cost pressures. This cost pressure is further exacerbated by the fact that asset managers are suddenly faced with a completely new type of client, with different needs and expectations.

### 2.2 Demographic shifts

In 2020, millennials will account for the largest adult segment in the U.S. And they are on the cusp of their best earning years. They will benefit from a monumental wealth transfer from their baby boomer parents, the largest wealth transfer in history. Estimates assume that up to U.S. \$70 trillion will be passed between these two generations in the next decades. Millennials will not only become increasingly more relevant as investors, but also as agents for investment decisions. Millennials are relationship managers for clients of wealth managers, investment committee members of pension funds, or chief investment officers for family offices. In these positions, too, they will be strongly guided by the values of their generation:

- As investors, they are demanding greater transparency and reduced costs. Mounting financial scandals, perceptions of increased inequality, and spiraling complexity have led to eroding trust in traditional financial institutions. Return on investment is less important for them than sustainability and emotionality when investing becomes more important than pure facts.

- As users or clients, millennials are different because they are digital natives. This generation has never owned an investment product or had a financial planner, but they happily rely on their smartphone for all manner of services and prefer consulting an app or their social network to personal contact with an investment professional or financial institution. They grew up with technology baked into their lives. And they will never accept investment solutions and services that do not come with a large portion of digital services.

## 2.3 Technology

Technology is evolving as well. Advances in robotization are helping asset managers handle their existing processes more efficiently, and the increased use of cloud solutions promises a more cost-effective IT setup. Additionally, ever decreasing computation costs and ever larger data volumes mean that “big data” will become an important factor in the investment process. However, the truly disrupting technologies are blockchain and new technical possibilities to revolutionize customer interaction.

### 2.3.1 BLOCKCHAIN AND DLT

Blockchain and distributed ledger technology (DLT) have the power to turn the antiquated methods and processes in the fund industry upside down. Although the industry moves vast sums of money every day, it still uses the methods of the last millennium for processing transactions. Thousands upon thousands of transactions are processed via fax every day and spreadsheets are used to painfully consolidate and reconcile the many disjointed ledgers.

Public blockchain networks have the power to legitimately solve many of the issues of the industry with thoroughly novel constructions. At the heart of finance is the question of how we trade and record its history. Many counterparties and processes, which were previously required to build a web of trust, become superfluous in the context of a blockchain-powered financial infrastructure.

Blockchain-based identity could make compliance and fund subscription vastly more efficient, with passported know your customer (KYC) procedures where investors prove their identity once, instead of multiple times for multiple institutions. Fund shares as tokens could advance entirely new models and markets for distribution. Asset pricing and net asset value (NAV) calculations can be handled on-chain, transparently and in real-time. Risk management and portfolio guidelines may be implemented as code, bringing new levels

of confidence and control to asset positions, while significantly reducing monitoring effort as a side effect. Near-instant trade settlement between counterparties that happens directly and with deterministic certainty. Even custody of assets can be managed not by independent third parties, but by smart contracts that simultaneously allow discretionary trade and cryptographic security.

The technology, therefore, has the potential to not only improve the existing model of the asset management industry by minimizing costs and risks, but it can also open up completely new opportunities for asset managers to manage and distribute products. Combined with new technologies for customer interaction, it can form the basis for a new fund ecosystem.

### 2.3.2 CUSTOMER INTERACTION

The technology for greatly simplified and improved customer interaction has also made great strides in recent years. In addition to the online touch points, the areas of (video) chat and email have also developed greatly. But asset managers have not fully embraced these media, relying instead on printed reports sent by mail. Moreover, new communication channels such as social media have been added, which make it easier for asset managers to contact their potential end-investors directly.

Innovation is mostly a product of technical progress that makes new ideas possible and the willingness to use new technology. The financial services sector has largely been able to ignore technological progress because core financial infrastructure has not been forced to adapt. It has been sustained by powerful incumbents, captured regulators, and complacent central banks. Even celebrated fintech companies with shiny apps and slick user experience (UX) designs still use the rusty rails of legacy financial infrastructure.

But with the new, potent emerging user groups – who combine complete openness towards new technologies with shrinking trust in established financial institutions – a major change for the financial industry is ahead of us.

So, the question is: what is the impact on the financial services industry?

Everyone remembers Bill Gates’ famous words that “Banking is necessary, banks are not”. But the prediction of the decline of the banks has not materialized as yet – despite a severe financial crisis. Why should anything change now?

The big change is the combination of new technologies, which facilitate a change in the ecosystem, and a user group that is much more open to change. Banks will still be around in 10 years, but clients will increasingly consume financial services from specialists, large tech companies, and fintech platforms.

As a result, however, the traditional sales channels of asset managers will become less important. But that is not necessarily a danger for asset managers. It can also be a great opportunity.

The existing distribution channel simply has some big problems, such as:

- **It is not very transparent:** the asset manager normally does not know which end-investor is invested in their products. And the customer lacks product transparency, for example, regarding the breakdown of the exact costs.
- **It is extremely expensive:** up to 70 percent of the total product costs are spent on distribution.
- **It is highly inefficient:** banks and insurance companies tend to sell products that help them achieve their business objectives. These products are not necessarily the best to satisfy the end-investor's needs.

As the existing distribution channel becomes less important, direct sales (B2B or B2C) and sales via platforms such as Revolut, N26, Amazon, WeChat, or Netflix can offer completely new opportunities. Those platforms are very much client-focused, strong in designing great user experience, and they know how to work with data. They are also not asking for 70 percent distribution premium.

### 3. HOW CAN TECHNOLOGY HELP TO ADDRESS THE CHALLENGES OF THE NEW REALITY?

A key point to remember is that these new platforms are often not banks. They do not have expertise in anti-money laundering (AML), they are poor in fulfilling regulatory obligations, and they have little experience in selling or reporting financial products. This is where the asset managers can help. Asset managers distributing through tech platforms will need to cover certain functions that are currently covered by the distribution partner in the traditional setup with banks. This will not only involve classic business functions; many tech platforms will also demand technical solutions from the product provider (e.g., sophisticated portfolio reporting).

In return, digital platforms can provide what they know best: they know their customers inside-out. KYC, a discipline often perceived by banks as an operational- and compliance-driven function, is the core function for digital platforms. And it is the first important step in unlocking a great client experience. Asset managers need to win back client relationships. As mentioned before, asset managers currently do not know their customers well enough. If managers do not even know their customers' names, how can they know their pains, wishes, or personal goals? And this is exactly what they can get from digital platforms in return for their investment expertise.

“

*New distribution models are a great opportunity for asset managers, as it allows them to get immediate and full access to the investor.*

”

The bottom line is that the combination of excellence in investment expertise combined with great regulatory know-how from asset managers and fast, client-focused delivery capabilities with great client experience from digital platforms can be very powerful.

Asset managers want to get closer to their clients, despite increased regulatory duty and costs. However, numerous counterparties and intermediaries stand between them – an artefact of rules and regulations long past their “sell by” date. However, with the introduction of new distribution channels, the acquisition of additional customer information becomes easier.

But technology can do much more. It can help asset managers build great digital touchpoints, which can create a substantially differentiated customer value and experience, such as client portals, which allow direct interactions, options to conveniently buy products directly, sophisticated reporting, powerful investment insights, and interaction capabilities.

For business-to-consumer (B2C), the technology enables solutions that can connect the asset manager directly with the end-investor. For example, asset managers can develop direct investment applications that allow investors to save and invest money seamlessly.

With an app alone, the work is, of course, not done. Marketing in the retail segment is known to be enormously complex and expensive. But good marketing is a necessity if you move closer to your client. If their trusted banking party is no longer their counterpart for investing, they need to know their asset manager, their skills and capabilities, and they need to trust them. Social media can play a major role in building that trust as a channel to spread the word. But, ultimately, the message itself is what matters. If an asset manager manages to build trust in their work and company through good brand marketing and good product marketing, they will also be able to attract direct clients.

However, as the ease with which asset managers can be compared increases with the elimination of the distribution partner, it will become even more important for asset managers to achieve even better performance results in the future. This is why big data and artificial intelligence (AI) might become more relevant in the investment process. Portfolio managers will be provided with much more powerful tools to make even better investment decisions.

In summary, technology can help asset managers build and strengthen their client relationships, to create better investment products, and lower production costs and risks. But is it that simple?

#### 4. WHAT ELSE MATTERS BEYOND TECH?

The new distribution models are a great opportunity for asset managers, as it allows them to get immediate and full access to the investor. They will even get access to new client segments. Imagine the huge potential of all non-banked segments they can target through apps or platforms. User groups who do not currently have bank accounts, but who use social media and other online platforms intensively have huge potential. Distributing their products directly or through platforms will substantially lower distribution costs, allowing a more aggressive pricing of the investment product.

But the new models will require asset managers to cover topics they have never covered before, which will have a major impact on the organization.

They will need new skills, such as marketing, sales, and distribution, which collaborate with tech platforms, rather than banks or call center agents, for direct client requests.

The culture and values of the organization also need changing. The new asset manager needs to become more agile (e.g., reporting in real-time, faster product lifecycles, faster technology cycles), leaner (end-to-end integration, cost focus), smarter (better able to analyze client data and understand client needs), and more client-centric (instead of product-centric).



The quality of the investment product is important and will stay important (e.g., transparency will help investors to better compare performance), but this is not where asset managers win the race. This is where the race is lost. If their performance is poor, they will lose clients.

The difference can be made with client experience. That is where you win new clients. To offer the best client experience, they will need to fully understand the investor. They must understand the client's needs, pains, feelings, and wishes. Only then, will they will be able to offer

- Great products
- With a great user experience
- And a great service

We still do not know whether or when the big disruption in the financial industry will finally happen. But even if nothing changes at all – an asset manager who puts client experience first, can make the difference.

## **CONCLUSION: CLIENT EXPERIENCE IS KEY**

Why was Uber successful? Not because they painted their taxis black instead of yellow. But because ordering an Uber is extremely convenient. You are still in the bar, you open your app, you order your Uber and you even get a quote before the ride starts plus a well-estimated arrival time. The client experience is simply better with Uber than it is with a normal taxi.

Why was Apple iTunes so successful? Not because they were cheaper. Definitely not because of the more beautiful CD covers. Because it was more convenient. You can sit at home and buy the one single you want. You do not have to buy a full CD. The client experience is simply better with iTunes than at a CD shop.

Even if the industry does not change dramatically, an asset manager can make a difference with better client experience. But for that they need to have a client relationship, they need to understand their client, their pains and fears, their needs and desires. If they understand their clients, their investors down to the last detail, they will be able to offer outstanding investment products their clients will love and service that will keep them coming back. Not only because of great performance, because they have outperformed the benchmark for 15 years, for example. They will love it because they get what they want.

Client experience is key! Not technology.

© 2020 The Capital Markets Company (UK) Limited. All rights reserved.

This document was produced for information purposes only and is for the exclusive use of the recipient.

This publication has been prepared for general guidance purposes, and is indicative and subject to change. It does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (whether express or implied) is given as to the accuracy or completeness of the information contained in this publication and The Capital Markets Company BVBA and its affiliated companies globally (collectively "Capco") does not, to the extent permissible by law, assume any liability or duty of care for any consequences of the acts or omissions of those relying on information contained in this publication, or for any decision taken based upon it.

## ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

## WORLDWIDE OFFICES

### APAC

Bangalore  
Bangkok  
Hong Kong  
Kuala Lumpur  
Pune  
Singapore

### EUROPE

Bratislava  
Brussels  
Dusseldorf  
Edinburgh  
Frankfurt  
Geneva  
London  
Paris  
Vienna  
Warsaw  
Zurich

### NORTH AMERICA

Charlotte  
Chicago  
Dallas  
Houston  
New York  
Orlando  
Toronto  
Tysons Corner  
Washington, DC

### SOUTH AMERICA

São Paulo

[WWW.CAPCO.COM](http://WWW.CAPCO.COM)



# CAPCO