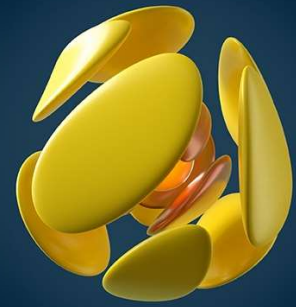


# DEFINING PORTFOLIO RESILIENCE

## A New Risk Management Framework



### **Undergoing Transformation: Employing technology for successful outcomes**

Anders Reinertsen, Head of Asset Owners, Americas, BNY Mellon

Dr. Ashby Monk, Executive and Research Director, Stanford Long-Term Investing

#### **Anders Reinertsen**

What do you see as the keys for an asset owner to be successful in this transformation and make it a reality in the near future?

#### **Dr. Ashby Monk**

I think it's important to call out that we don't have a great technology culture in this industry today. There's nothing that says to me that we can't build a great technology culture. You know, the finance industry is a data driven industry. We need decision support tools. We have incredible tools in -- call it like the more private industry around decision making and data and analytics.

So, I think to really take this next step in our technology development, you have to go back to the governance. You know, you need to set resourcing correctly, you need to set strategy correctly, you need to hire the right team. Great people follow great people. So, it starts at the board. You know, there's all of these pieces that need to be put in place.

So, I would say, you know, start by doing a capability assessment on your board and go out and recruit some tech talent. Sometimes I see a lot of pension funds saying, "Oh, we'll just build this tech ourselves. Now, we'll hire seven Python engineers, and we'll build our own dashboard." So, you need to realize that you're making a commitment for the life of your organization because technology doesn't stop evolving. It's constantly supported. You know, you don't get a piece of technology and then you're like, "We're done." You're always dealing with that. So, if you're going to build your own technology for mission critical decision making, then you're going to need to be a tech company for a long time.

This is the infrastructure. Right now, the institutional investors are getting their portfolio positioning in place, which means building feeds to their funds, means building tools to extract data from PDFs.

You know, if you're a public pension with 35% of your assets in private equity, venture capital and hedge funds, you're scraping PDFs at this point because there is no standard of communicating, you know, fund commitments and capital calls and all of these things. So, we're seeing pretty heavy investment in that portfolio positioning and to put a number on it, the rule of thumb for us is a basis point.

It does frustrate that we are still in this world of pricing on basis points, but it is a decent proxy for complexity and ultimately if you're, you know, a trillion-dollar fund, you're going to have a lot of positions and there's going to be bigger positions. So, you're going to have a lot of positions, you're going to have a global portfolio and you're going to be spending about a basis point to really get a dashboard that you can trust.

The important thing is then what you do with it and that's where we still, my friend, live in the land of spreadsheets. And that's going to be the next big step change, which is, yes, we have our portfolio positioning in a lovely dashboard, but then how do we quickly understand looming capital calls, unfunded commitments, liquidity, cash. You will usually see somebody pull up a spreadsheet to tell you what their unfunded commitments to private equity are, and that's where the next wave of investment will be on the projections.

## **bnymellon.com**

BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation and may be used to reference the corporation as a whole and/or its various subsidiaries generally. This material does not constitute a recommendation by BNY Mellon of any kind. The information herein is not intended to provide tax, legal, investment, accounting, financial or other professional advice on any matter, and should not be used or relied upon as such. The views expressed within this material are those of the contributors and not necessarily those of BNY Mellon. BNY Mellon has not independently verified the information contained in this material and makes no representation as to the accuracy, completeness, timeliness, merchantability or fitness for a specific purpose of the information provided in this material. BNY Mellon assumes no direct or consequential liability for any errors in or reliance upon this material.

The Bank of New York Mellon, a banking corporation organized pursuant to the laws of the State of New York, whose registered office is at 240 Greenwich St, NY, NY 10286, USA. The Bank of New York Mellon is supervised and regulated by the New York State Department of Financial Services and the US Federal Reserve and is authorized by the Prudential Regulation Authority (PRA).

The Bank of New York Mellon operates in the UK through its London branch (UK companies house numbers FC005522 and BR000818) at 160 Queen Victoria Street, London, EC4V 4LA and is subject to regulation by the Financial Conduct Authority (FCA) at 12 Endeavour Square, London, E20 1JN, UK and limited regulation by the Prudential Regulation Authority at Bank of England, Threadneedle St, London, EC2R 8AH, UK. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.

The Bank of New York Mellon SA/NV, a Belgian limited liability company, registered in the RPM Brussels with company number 0806.743.159, whose registered office is at Boulevard Anspachlaan 1, B-1000 Brussels, Belgium, authorized and regulated as a significant credit institution by the European Central Bank (ECB) at Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany, and the National Bank of Belgium (NBB) at Boulevard de Berlaimont/de Berlaimontlaan 14, 1000 Brussels, Belgium, under the Single Supervisory Mechanism and by the Belgian Financial Services and Markets Authority (FSMA) at Rue du Congrès/Congresstraat 12-14, 1000 Brussels, Belgium for conduct of business rules, and is a subsidiary of The Bank of New York Mellon.

The Bank of New York Mellon SA/NV operates in Ireland through its Dublin branch at Riverside II, Sir John Rogerson's Quay Grand Canal Dock, Dublin 2, D02KV60, Ireland and is registered with the Companies Registration Office in Ireland No. 907126 & with VAT No. IE 9578054E. The Bank of New York Mellon SA/NV, Dublin Branch is subject to limited additional regulation by the Central Bank of Ireland at New Wapping Street, North Wall Quay, Dublin 1, D01 F7X3, Ireland for conduct of business rules and registered with the Companies Registration Office in Ireland No. 907126 & with VAT No. IE 9578054E.

The Bank of New York Mellon SA/NV is trading in Germany as The Bank of New York Mellon SA/NV, Asset Servicing, Niederlassung Frankfurt am Main, and has its registered office at MesseTurm, Friedrich-Ebert-Anlage 49, 60327 Frankfurt am Main, Germany. It is subject to limited additional regulation by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany) under registration number 122721.

The Bank of New York Mellon SA/NV operates in the Netherlands through its Amsterdam branch at Claude Debussylaan 7, 1082 MC Amsterdam, the Netherlands. The Bank of New York Mellon SA/NV, Amsterdam Branch is subject to limited additional supervision by the Dutch Central Bank ('De Nederlandsche Bank' or 'DNB') on integrity issues only (registration number 34363596). DNB holds office at Westeinde 1, 1017 ZN Amsterdam, the Netherlands.

The Bank of New York Mellon SA/NV operates in Luxembourg through its Luxembourg branch at 2-4 rue Eugene Ruppert, Vertigo Building - Polaris, L- 2453, Luxembourg. The Bank of New York Mellon SA/NV, Luxembourg Branch is subject to limited additional regulation by the Commission de Surveillance du Secteur Financier at 283, route d'Arlon, L-1150 Luxembourg for conduct of business rules, and in its role as UCITS/AIF depository and central administration agent.

The Bank of New York Mellon SA/NV operates in France through its Paris branch at 7 Rue Scribe, Paris, Paris 75009, France. The Bank of New York Mellon SA/NV, Paris Branch is subject to limited additional regulation by Secrétariat Général de l'Autorité de Contrôle Prudentiel at Première Direction du Contrôle de Banques (DCB 1), Service 2, 61, Rue Taitbout, 75436 Paris Cedex 09, France (registration number (SIREN) Nr. 538 228 420 RCS Paris - CIB 13733).

The Bank of New York Mellon SA/NV operates in Italy through its Milan branch at Via Mike Bongiorno no. 13, Diamantino building, 5th floor, Milan, 20124, Italy. The Bank of New York Mellon SA/NV, Milan Branch is subject to limited additional regulation by Banca d'Italia - Sede di Milano at Divisione Supervisione Banche, Via Cordusio no. 5, 20123 Milano, Italy (registration number 03351).

The Bank of New York Mellon SA/NV operates in Spain through its Madrid branch with registered office at Calle José Abascal 45, Planta 4ª, 28003, Madrid, and enrolled on the Reg. Mercantil de Madrid, Tomo 41019, folio 185 (M-727448). The Bank of New York Mellon, Sucursal en España is registered with Banco de España (registration number 1573).

The Bank of New York Mellon SA/NV operates in Denmark as The Bank of New York Mellon SA/NV, Copenhagen Branch, filial af The Bank of New York Mellon SA/NV, Belgien, and has its registered office at Tuborg Boulevard 12/3, 2900 Hellerup, Denmark (CVR number: 41820063). It is subject to limited additional regulation by the Danish Financial Supervisory Authority (Finanstilsynet, Århusgade 110, 2100 København Ø).

BNY Mellon Fund Services (Ireland) Designated Activity Company is registered in Ireland No 218007, VAT No. IE8218007 W with a registered office at One Dockland Central, Guild Street, IFSC, Dublin 1. BNY Mellon Fund Services (Ireland) Designated Activity Company is regulated by the Central Bank of Ireland.

The Bank of New York Mellon (International) Limited is registered in England & Wales with Company No. 03236121 with its Registered Office at 160 Queen Victoria Street, London, EC4V 4LA. The Bank of New York Mellon (International) Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

BNY Mellon Saudi Financial Company is regulated by the Capital Market Authority, and licensed to conduct custody in securities activities, License number 20211-04, located in Alfaisaliah Tower, 18th Floor, King Fahad Road, P.O. Box 99936 Riyadh 11625, Kingdom of Saudi Arabia.

Regulatory information in relation to the above BNY Mellon entities operating out of Europe can be accessed at the following website: <https://www.bnymellon.com/RID>.

The Bank of New York Mellon has various subsidiaries, affiliates, branches and representative offices in the Asia-Pacific Region which are subject to regulation by the relevant local regulator in that jurisdiction. Details about the extent of our regulation and applicable regulators in the Asia-Pacific Region are available from us on request. Among others, The Bank of New York Mellon, Singapore Branch is subject to regulation by the Monetary Authority of Singapore. The Bank of New York Mellon, Hong Kong Branch (a banking corporation organized and existing under the laws of the State of New York with limited liability) is subject to regulation by the Hong Kong Monetary Authority and the Securities & Futures Commission of Hong Kong. The Bank of New York Mellon, Shanghai and Beijing branches are subject to regulation by the China Banking and Insurance Regulatory Commission. The Bank of New York Mellon, Seoul Branch is subject to regulation by the Financial Services Commission, the Financial Supervisory Service and The Bank of Korea. The Bank of New York Mellon, Taipei Branch is subject to regulation by the Financial Supervisory Commission R.O.C. (Taiwan) and Central Bank of the Republic of China (Taiwan).

The Bank of New York Mellon is regulated by the Australian Prudential Regulation Authority and also holds an Australian Financial Services Licence No. 527917 issued by the Australian Securities and Investments Commission to provide financial services to wholesale clients in Australia.

The Bank of New York Mellon Securities Company Japan Ltd, subject to supervision by the Financial Services Agency of Japan, acts as intermediary in Japan for The Bank of New York Mellon and its affiliates, with its registered office at Marunouchi Trust Tower Main, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-1005, Japan.

If this material is distributed in, or from, the Dubai International Financial Centre ("DIFC"), it is communicated by The Bank of New York Mellon, DIFC Branch, regulated by the DFSA and located at DIFC, The Exchange Building 5 North, Level 6, Room 601, P.O. Box 506723, Dubai, UAE, on behalf of The Bank of New York Mellon, which is a wholly-owned subsidiary of The Bank of New York Mellon Corporation. This material is intended for Professional Clients and Market Counterparties only and no other person should act upon it.

Past performance is not a guide to future performance of any instrument, transaction or financial structure and a loss of original capital may occur. Calls and communications with BNY Mellon may be recorded, for regulatory and other reasons.

Disclosures in relation to certain other BNY Mellon group entities can be accessed at the following website: <http://disclaimer.bnymellon.com/eu.htm>.

This document and the statements contained herein, are not an offer or solicitation to buy or sell any products (including financial products) or services or to participate in any particular strategy mentioned and should not be construed as such. This material is intended for wholesale/professional clients (or the equivalent only), is not intended for use by retail clients and no other person should act upon it. Persons who do not have professional experience in matters relating to investments should not rely on this material. BNY Mellon will only provide the relevant investment services to investment professionals.

Not all products and services are offered in all countries.

If distributed in the UK, this material is a financial promotion. If distributed in the EU, this material is a marketing communication.

This material, which may be considered advertising, is for general information purposes only and is not intended to provide legal, tax, accounting, investment, financial or other professional advice on any matter. This material does not constitute a recommendation or advice by BNY Mellon of any kind. Use of our products and services is subject to various regulations and regulatory oversight. You should discuss this material with appropriate advisors in the context of your circumstances before acting in any manner on this material or agreeing to use any of the referenced products or services and make your own independent assessment (based on such advice) as to whether the referenced products or services are appropriate or suitable for you. This material may not be comprehensive or up to date and there is no undertaking as to the accuracy, timeliness, completeness or fitness for a particular purpose of information given. BNY Mellon will not be responsible for updating any information contained within this material and opinions and information contained herein are subject to change without notice. BNY Mellon assumes no direct or consequential liability for any errors in or reliance upon this material.

This material may not be distributed or used for the purpose of providing any referenced products or services or making any offers or solicitations in any jurisdiction or in any circumstances in which such products, services, offers or solicitations are unlawful or not authorized, or where there would be, by virtue of such distribution, new or additional registration requirements.

© 2023 The Bank of New York Mellon Corporation. All rights reserved.