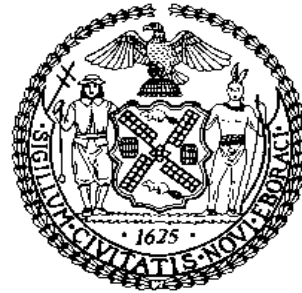




COMMON INVESTMENT MEETING Public Session



THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER

October 18, 2017

TRUCOST

Consultant Presentation

Carbon Footprint of the Public Equity Portfolios

NYCERS ■ Police Pension Fund ■ Fire Pension Fund ■ BERS

October 18, 2017



Copyright © 2017 by S&P Global. All rights reserved.

Agenda

- 1** Purpose
- 2** Scope of Work and Context
- 3** Summary of Findings
- 4** Discussion and Questions

Scope of Work

Trucost analyzed the carbon footprint of the public equity holdings of four New York City Retirement Systems:

- New York City Employees' Retirement System (NYCERS)
- New York City Police Pension Fund (Police)
- New York City Fire Pension Fund (Fire)
- New York City Board of Education Retirement System (BERS)

Scope of Work

Trucost analyzed the carbon footprint for **scope 1** and **scope 2** carbon emissions.

Scope 1 Emissions

Direct emissions resulting from a company's own operations and include GHG emissions from **boilers, company owned vehicles**, emissions from any **manufacturing operations**, and **waste produced**.

Scope 2 Emissions

Indirect emissions from consumption of purchased **electricity, heat, or steam** by the company.

Scope of Work

Key measures

Total carbon emissions:

Each system's total carbon emissions were apportioned on an 'ownership' basis:

Owning 1% of a company's shares means also owning 1% of that company's emissions

Carbon intensity:

$$\text{System Carbon Intensity} = \frac{\textit{Portfolio total carbon emissions}}{\textit{Portfolio total revenue}}$$

Context – Carbon Footprinting



Sweden threatens carbon-reporting law if pension funds fail to act

26 NOVEMBER 2015 | BY RACHEL FIXSEN

Print Email Share Comment



The Swedish government has told the country's core investment sector it must find a common way to report carbon footprints or it will force them to do so with legislation.

Per Bolund, minister for financial markets and consumer affairs and Green Party member, yesterday met with 20 pension and investment funds and insurers including [Alecta](#), [AMF](#), [Folksam](#) and its subsidiary KPA Pension to discuss the issue.

Swedish Systems must disclose portfolio's climate impact or face regulation - Johan Hultberg, MP

Fondbolagens förening

SWEDISH INVESTMENT FUND ASSOCIATION

Guidance for fund management companies' reporting of funds' carbon footprints

Adopted by the Board of Directors of the Swedish Investment Fund Association in May 2016



Article 173 of the French Energy Transition Law: Mandates climate disclosure by investors

PRIMontréalPLEDGE

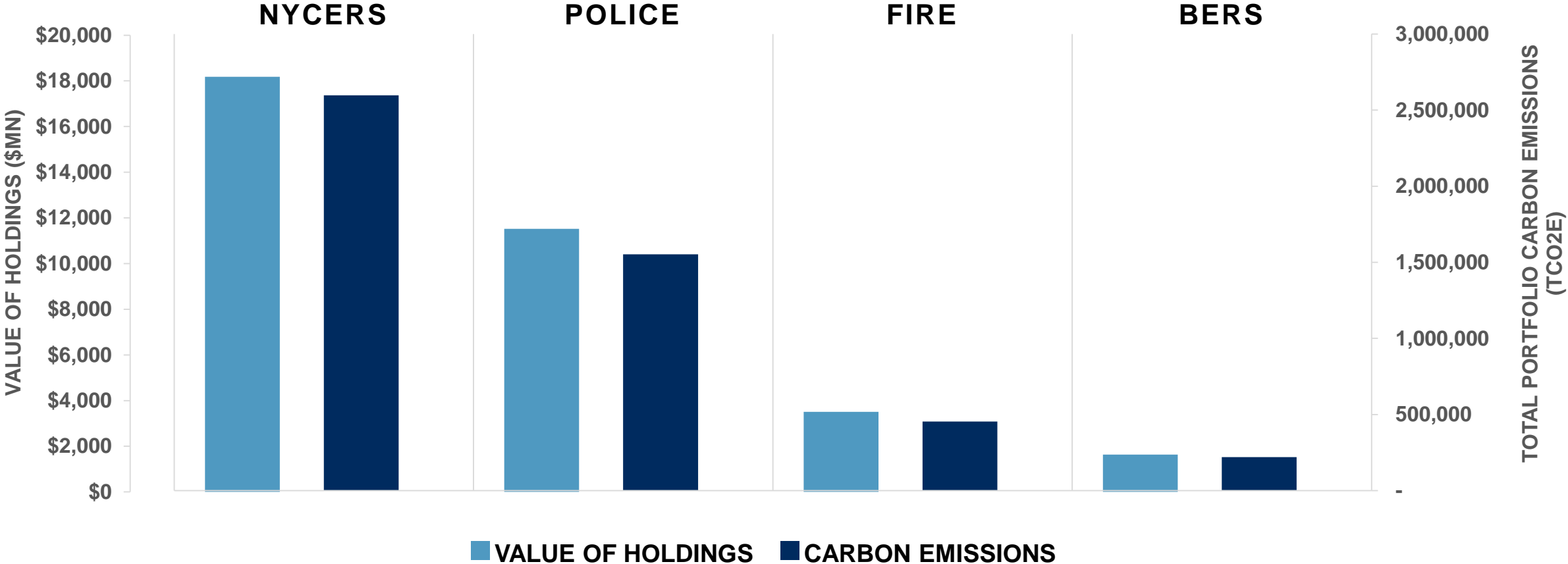
The Montreal Pledge, which commits investors to measuring and disclosing the carbon footprint of their portfolios on an annual basis, has attracted **120 signatories representing just over \$10trn in assets under management.**



The Portfolio Decarbonization Coalition, formed to help cut greenhouse gas emissions by mobilizing institutional investors committed to decarbonizing their portfolios, smashed through its initial target of \$100bn, and is now overseeing the decarbonisation of **\$230bn in assets under management.**

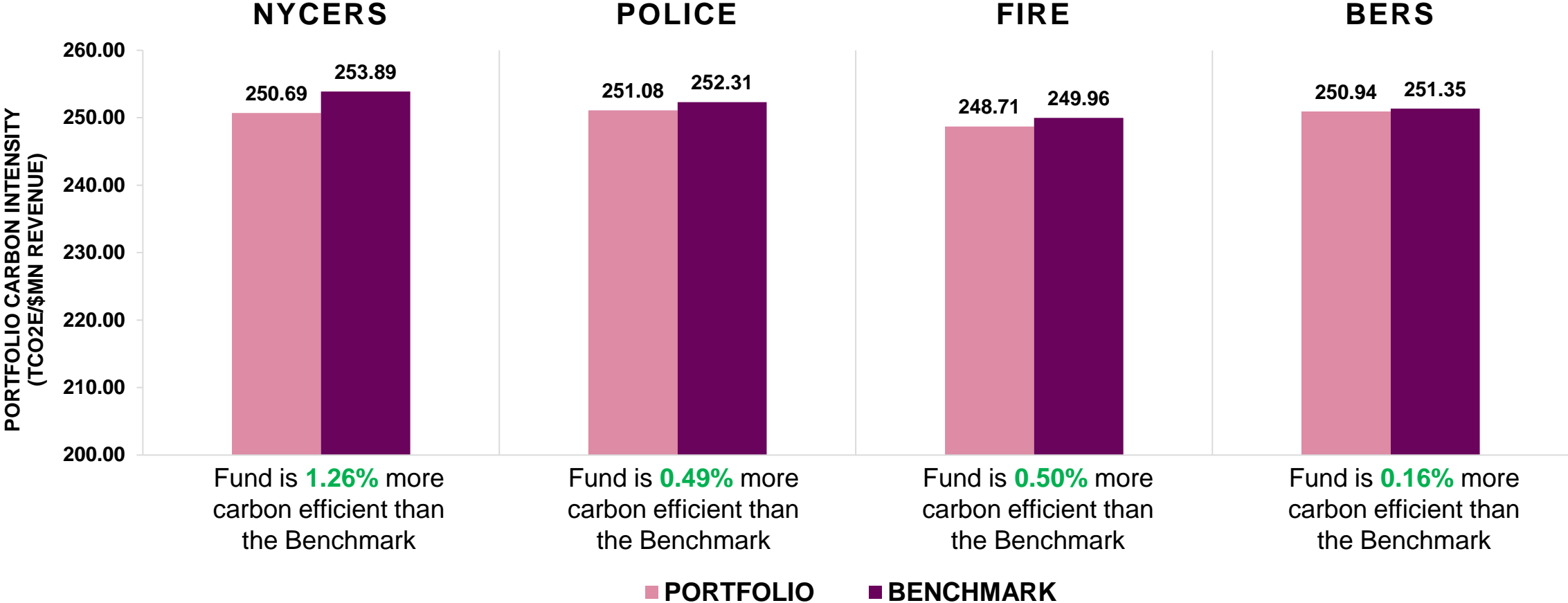
Summary of Findings

Absolute carbon emissions of the systems are in line with the relative size of the systems. The largest system has the greatest absolute emissions and the smallest system has the smallest absolute emissions.



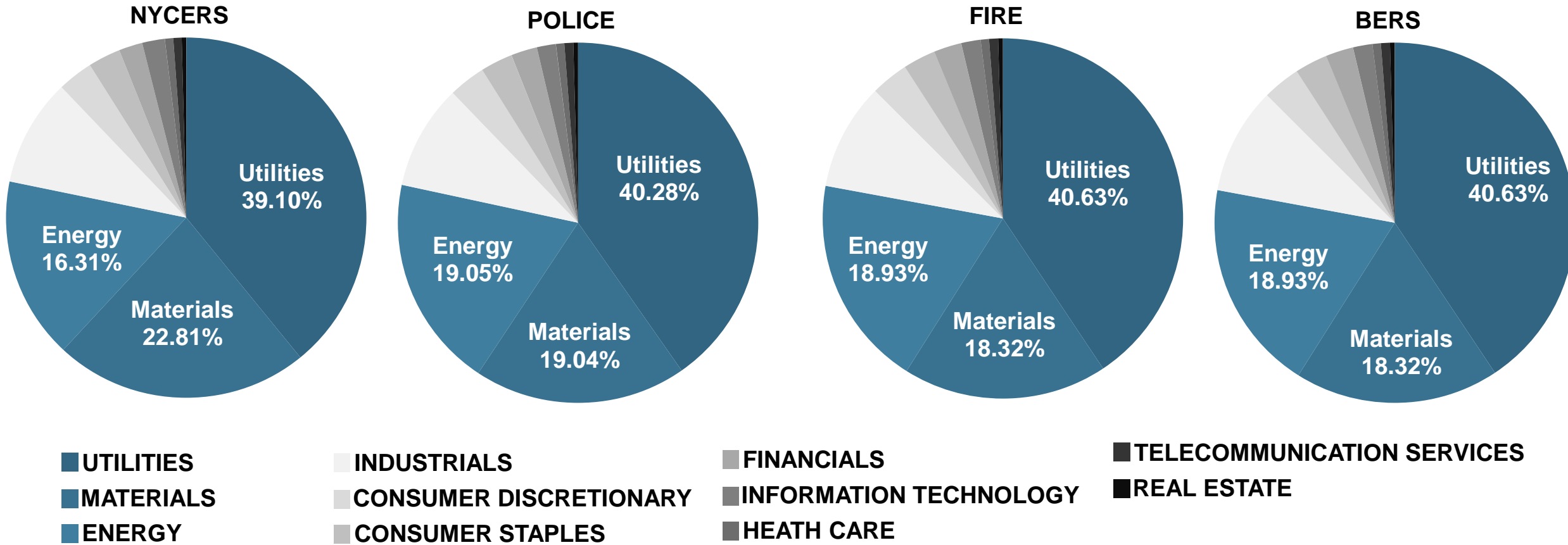
Summary of Findings: Relative to Benchmark

All of the systems have slightly lower carbon intensities than their benchmark, making them more carbon efficient than their benchmarks.



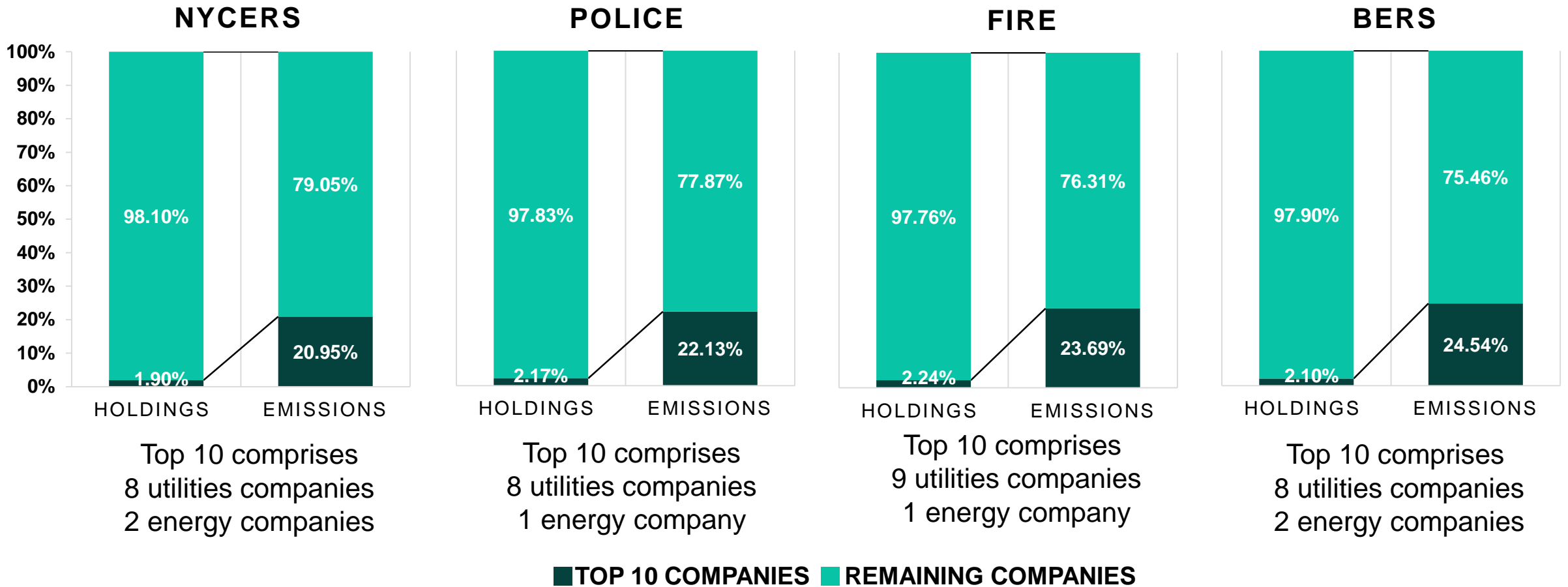
Summary of Findings: Sector Breakdown

Across each of the systems, three sectors—**utilities, materials, and energy**—account for the majority (**77%+**) of the absolute emissions. The remaining emissions are spread across 8 other sectors.



Summary of Findings: Top Contributors

The top 10 contributors in all 4 systems account for only around 2% of holdings value but over 20% of total emissions.



Top 10 comprises
8 utilities companies
2 energy companies

Top 10 comprises
8 utilities companies
1 energy company

Top 10 comprises
9 utilities companies
1 energy company

Top 10 comprises
8 utilities companies
2 energy companies

Discussion and Questions



General Disclaimer

Copyright © 2017 S&P Trucost Limited (“Trucost”), an affiliate of S&P Dow Jones Indices LLC. All rights reserved. The information in this publication should not be construed or relied upon in making, or refraining from making, any investment decision.

This publication and related materials are not intended to provide and do not constitute financial investment decisions with respect to a specific company or security or be used as legal advice. Trucost is not an investment advisor, and Trucost makes no representation regarding the advisability of investing in any investment fund or other investment vehicle. A decision to invest in any investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document.

This publication and related materials (“Information”) have been prepared solely for informational purposes only based upon information generally available to the public from sources believed to be reliable. The Information may not be reproduced or disseminated in whole or in part without the prior written permission of Trucost. The information may not be used to verify or correct other data, create indexes, risk models, or analytics or in connection with issuing, offering, sponsoring, managing, marketing any securities, portfolios, financial products, or other investment vehicles.

Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction.

Trucost, its affiliates, or its and their third-party data providers and licensors (collectively “Trucost Parties”) do not guarantee the accuracy or completeness of the Information. Trucost Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Information. THE TRUCOST PARTIES MAKE NO WARRANTIES OR REPRESENTATIONS, AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH TRUCOST PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE TRUCOST PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR AN OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.

‘Trucost’ is the trading name of S&P Trucost Limited a limited company registered in England company number 3929223 whose registered office is at 20 Canada Square, London E14 5HL, UK.

CONFIDENTIALITY & COPYRIGHT

The information contained in this report is confidential and is submitted by Trucost on the understanding that it will be used only by your staff and consultants. Where consultants are [self] employed, the use of this information is restricted to use in relation to your business. In particular, the contents of this report may not be disclosed in whole or in part to any other party without the prior written consent of Trucost.

ABOUT Trucost, part of S&P Dow Jones Indices, a division of S&P Global

Trucost is part of S&P Dow Jones Indices. A leader in carbon and environmental data and risk analysis, Trucost assesses risks relating to climate change, natural resource constraints, and broader environmental, social, and governance factors. Companies and financial institutions use Trucost intelligence to understand their ESG exposure to these factors, inform resilience and identify transformative solutions for a more sustainable global economy. S&P Global’s commitment to environmental analysis and product innovation allows us to deliver essential ESG investment-related information to the global marketplace. For more information, visit www.trucost.com

Questions?