

Expanding carbon indicator scope by looking-through investment funds

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Introduction

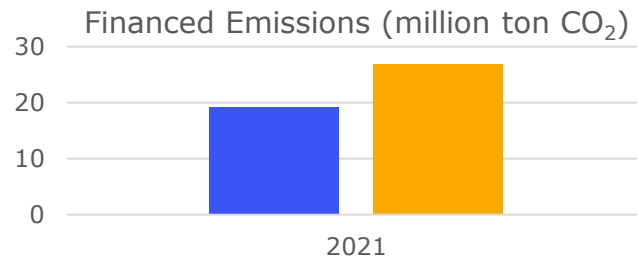
Problem statement

- Investment portfolios consist of **direct** portfolio investments and **indirect** holdings via investment funds
- Indirect holdings are **not always in the picture**, due to data gaps and reporting limits
- Only looking at direct holdings may lead to **misjudgement of risks**, for example in relation to country exposure or carbon emissions

Solution

- We present three **look-through approaches** to complement direct portfolios with indirect investments
- To illustrate, we expand **carbon indicators**' scope by looking-through investment funds

In the Netherlands, a significant part of Financed Emissions is attributed to investment funds



■ Investment funds ■ Pension funds and insurers

Casus: carbon indicators

- The look-through approach is **versatile** and can be applied to any financial sector, country, and in any risk assessment context
- To illustrate look-through applied in a risk assessment context, we calculate carbon indicators for investment portfolios of **Dutch pension funds**

Carbon indicators

- We calculate **Financed Emissions** and **Carbon Footprint**, as recommended by the TCFD and the ECB expert group on climate change statistics

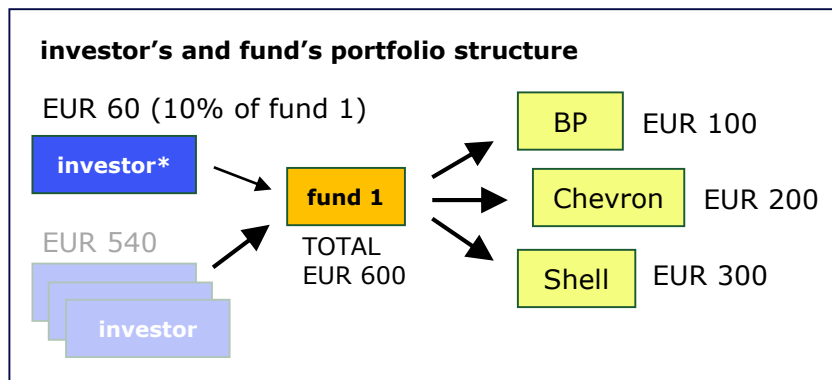
Financed Emissions	Carbon Footprint
absolute indicator (in mln tons CO ₂)	relative indicator (in tons CO ₂ / mln EUR)
$\sum \frac{\text{holdings}}{\text{company value}} \text{emissions}$	$\sum \frac{\text{holdings}}{\sum \text{holdings}} \frac{\text{emissions}}{\text{revenue}}$

Three approaches

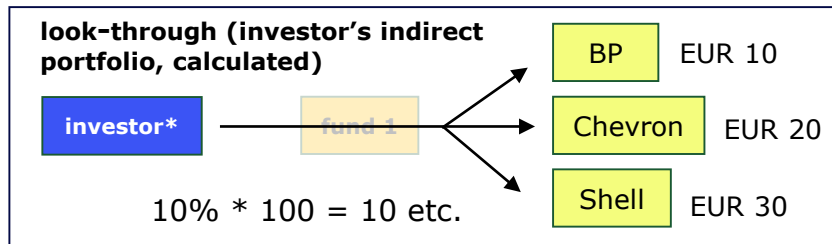
- Approach 1: “Classic” look-through based on statistical reporting
- Approach 2: Look-through via supervisory reports (if available)
- Approach 3: “Synthetic” look-through based on commercial data

Approach 1) “classic” look-through

- Allocate the **investment fund** holdings to the investor proportional to the investor’s ownership share of the fund

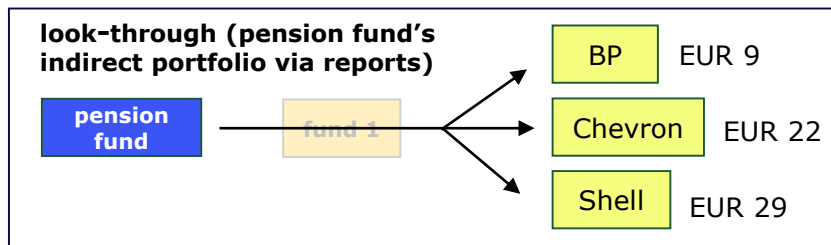


The investor is asset owner and carries full risk on BP, Chevron and Shell



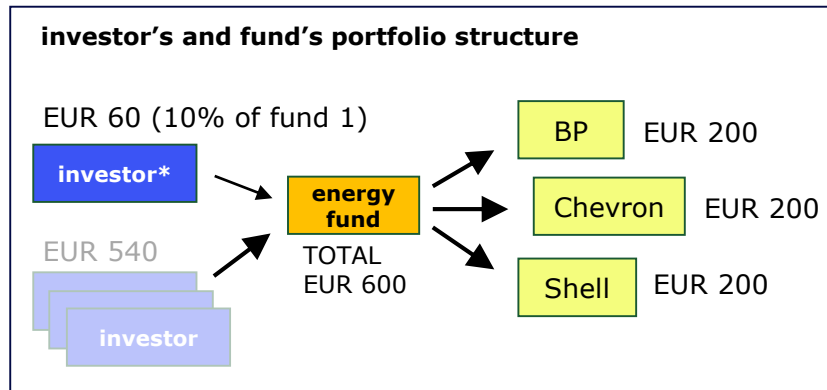
Approach 2) look-through via supervisory reports

- In the Netherlands, investment funds report their portfolio to pension funds, which in turn report these **looked-through holdings** to the supervisory authority directly
- These reports contain ready-to-use indirect holdings, meaning that **no calculations** are necessary



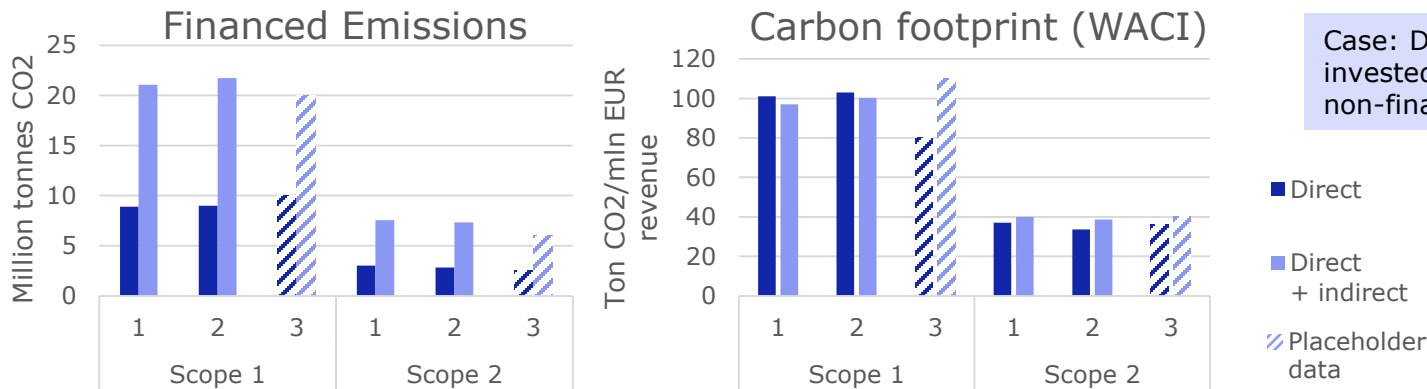
Approach 3) “synthetic” look-through based on commercial data

- Ideally, **detailed data** on investment funds’ portfolio holdings worldwide are available to calculate indirect exposures via funds
- However, such data is often absent, especially for **foreign funds**
- To estimate these positions we use **synthetic portfolio holdings**
- Synthetic portfolio holdings are obtained by **characterising each investment fund** globally, and attributing a detailed fund portfolio synthetically, based on the fund the characteristics



The energy fund's positions are estimated, based on global energy stock's market values

Look-through applied to carbon indicators



Look-through approaches: 1 "classic",
2 via supervision reporting, 3 "synthetic"

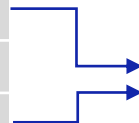
Scope 1 includes firm's own emissions,
Scope 2 includes firm's emissions via energy purchase

- **Indirect holdings are very important:** Financed Emissions more than double upon inclusion of indirect investments; CFP remains similar, showing that carbon intensity of direct and indirect portfolio are comparable for Dutch pension funds

Conclusion & discussion

- We presented **three approaches** allowing us to “look-through” investments via funds, to obtain the indirect portfolio of the initial investor in the fund
- This is important in view of **risk assessments**, such as for carbon emission indicators
- The **look-through approach can be widely applied** to any financial sector, country, and in any risk assessment context
- Our **case study** shows that Financed Emissions double when indirect holdings are taken into account, which is important information for investors, supervisors and policy makers
- The three approaches have different features, each with their own advantages, and can be used independently of each other, or in a **hybrid fashion**

Approach	Domestic look-through	Foreign look-through
1) Classic	Coverage	No coverage
2) Supervisory	Coverage	Coverage
3) Synthetic	Modeled	Modeled
Hybrid (1 & 3)	Coverage	Modeled



Compare outcomes in IFC paper for NL case study!

Backup slides

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Breakdown of investment fund holdings

Figure 2

Breakdown of the investment fund holdings (held by Dutch insurers and pension funds) of Dutch investment funds at the end of 2021. On the left: investments of Dutch insurers and pension funds in foreign funds (purple) and in Dutch funds (light blue). Breakdown: 1) Dutch funds' investments identifiable via the look-through methodology ('indirect investments', orange), 2) Dutch funds in other Dutch funds (dark blue), 3) Dutch funds in foreign funds, 4) investments of Dutch funds with unknown investment portfolio (not traceable or attributable). The dark blue portfolio is not in scope of this analysis, the grey (and purple) portfolios cannot be looked through due to lack of data.

