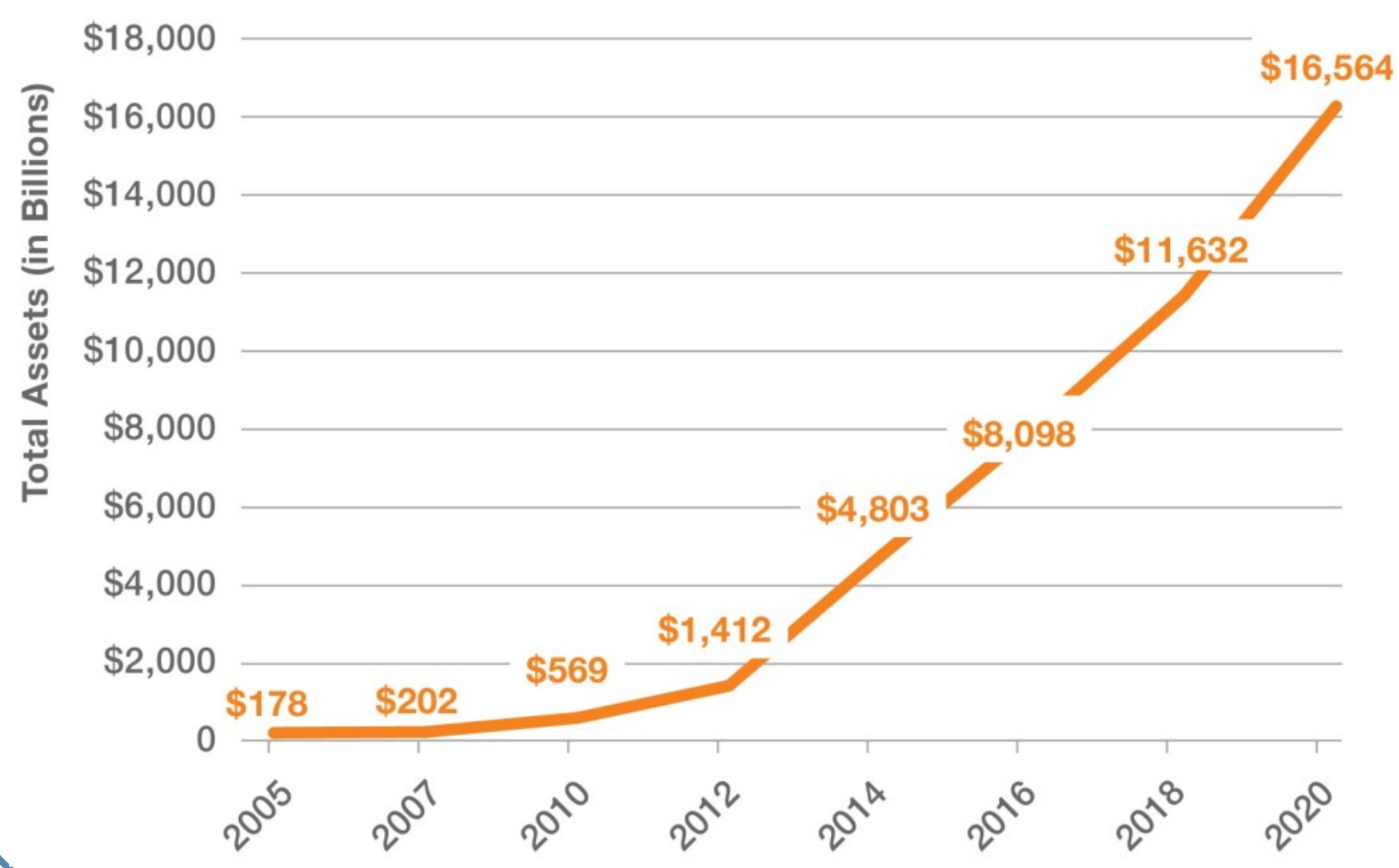
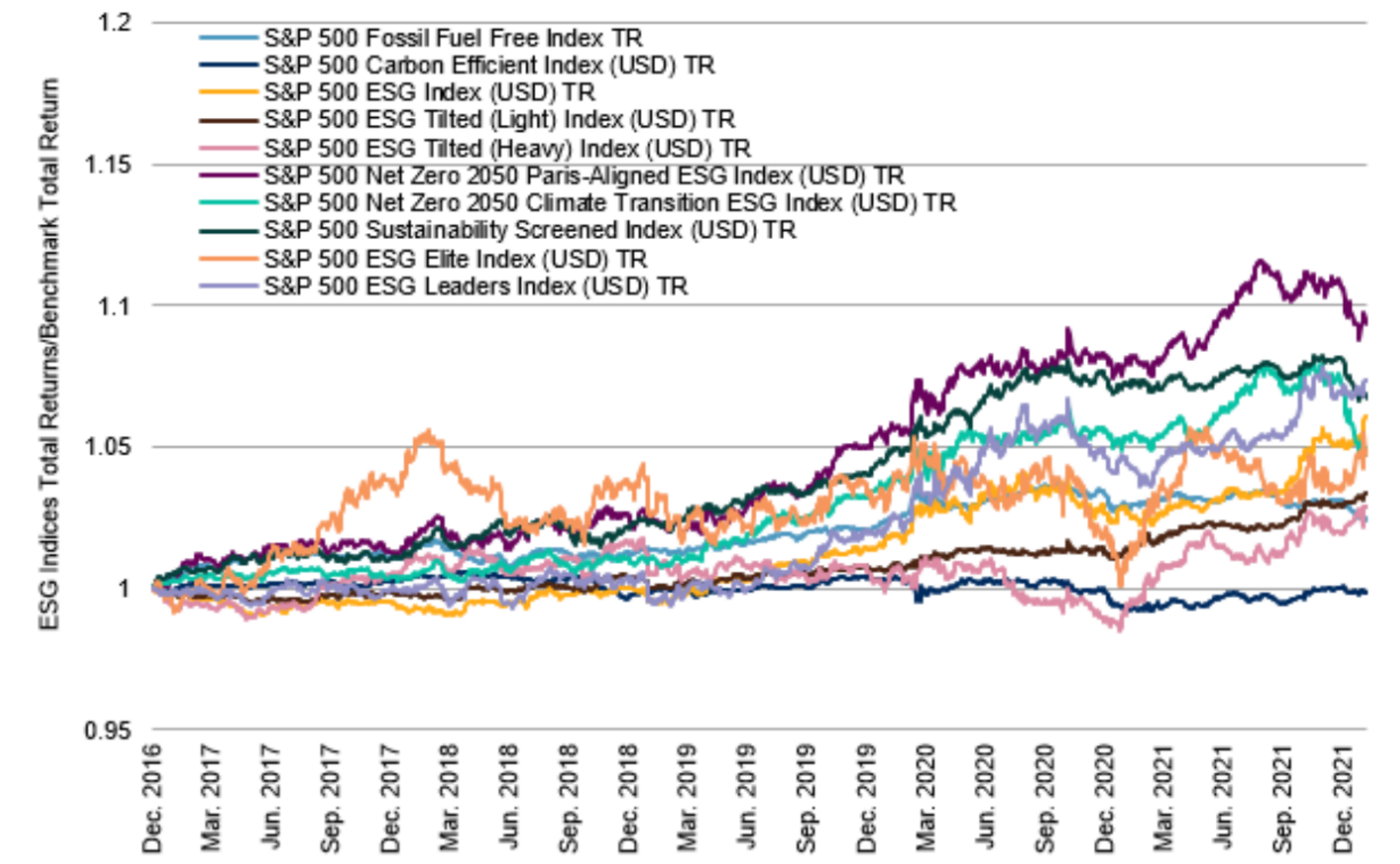


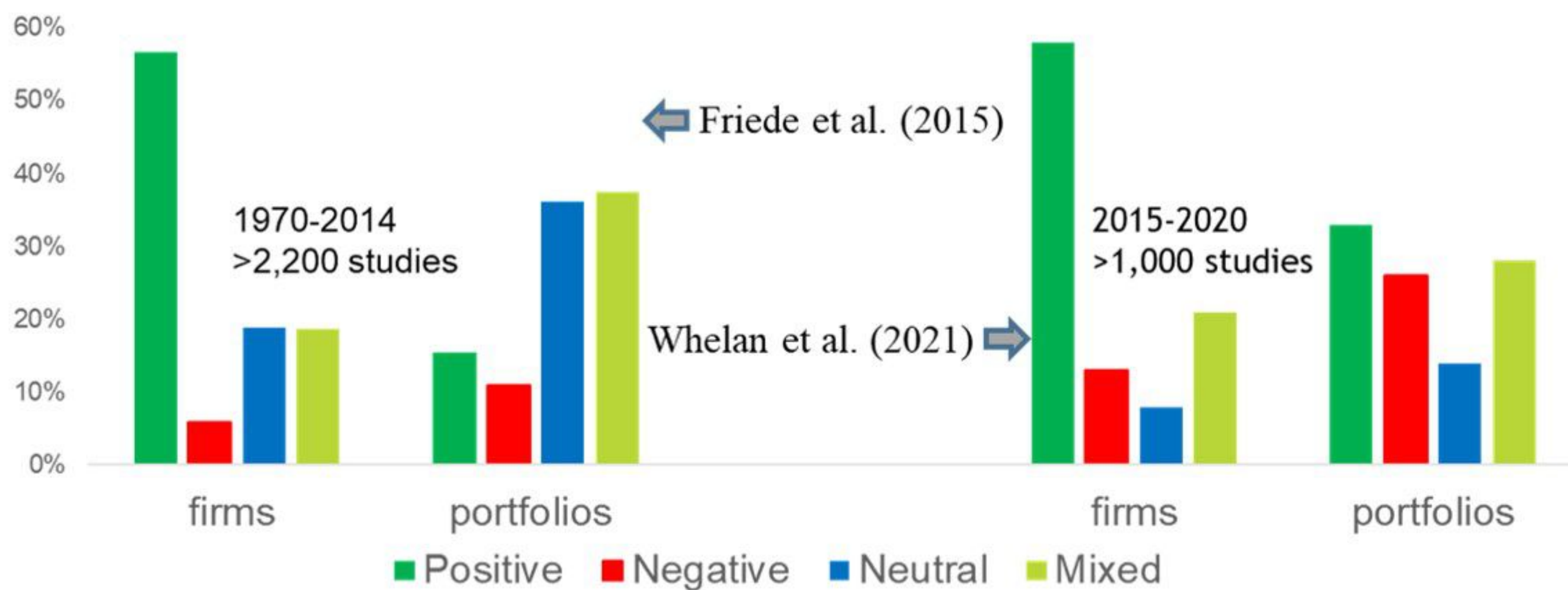
MOTIVATION



- Exponential growth of ESG integration **in the recent decade**
- **Trending capital inflows** to ESG funds or indices continuously push up their prices
- Realized returns can **stay elevated** for a prolonged time period
- Resulting persistent ESG outperformance can **hinder uncovering actual motivations** for ESG investing



CURRENT STATE OF LITERATURE (ESG PUZZLE)



Positive $ESG - \mathbb{E}[R]$ is a **puzzle**

- ESG assets as a **risk-hedge**
 - Albuquerque et al. (2018), Seltzer et al. (2020)
- ESG assets generate **“warm-glow”**
 - Riedl & Smeets (2017), Hartzmark & Sussman (2019), Humphrey et al. (2021), Bonnefon et al. (2022)

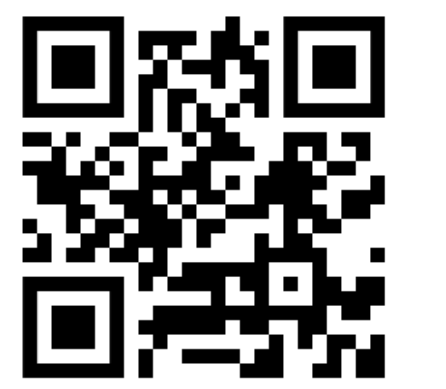
Theories suggest **negative relation**

USEFUL LINKS

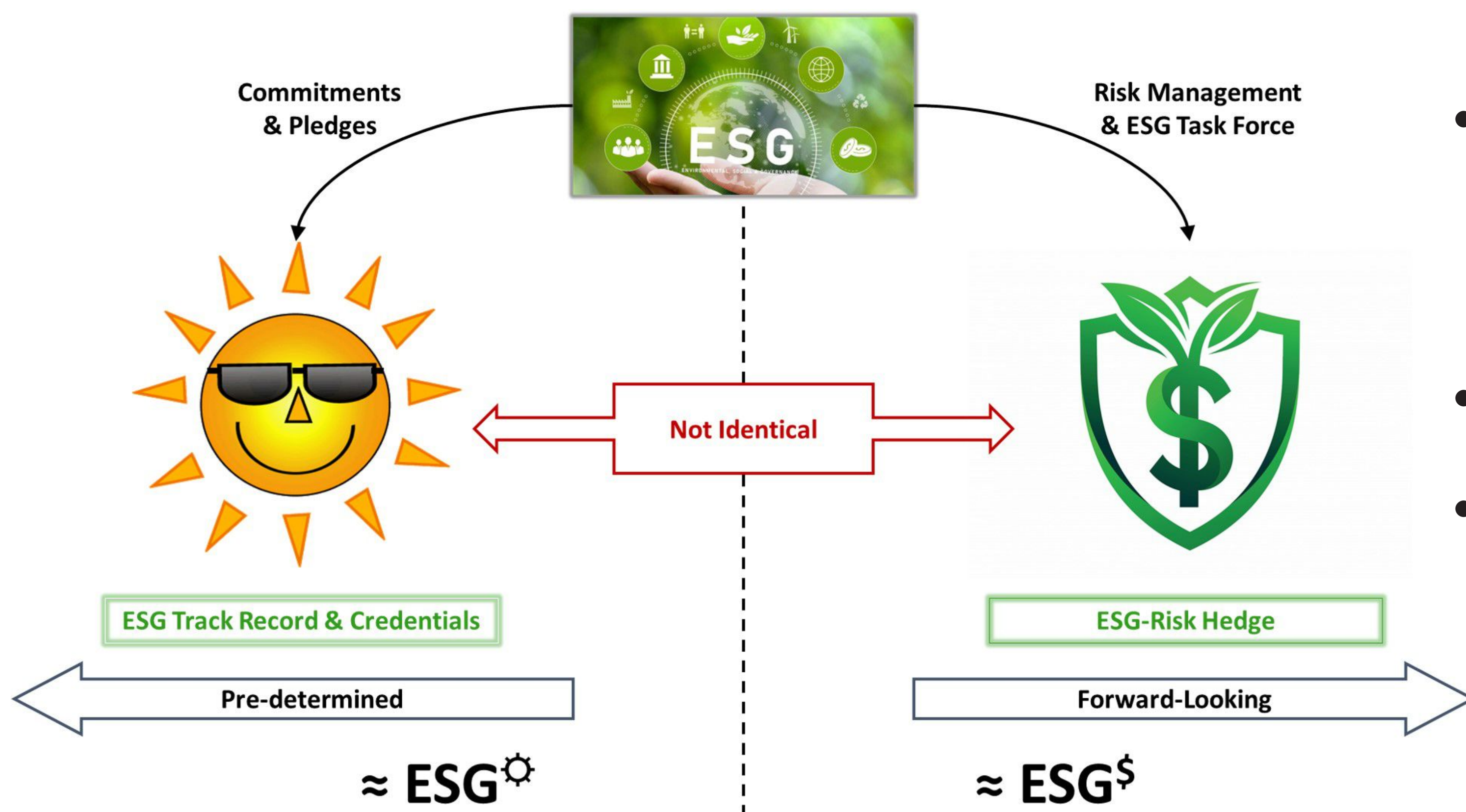
- Paper



- Webpage



IDENTIFICATION STRATEGY



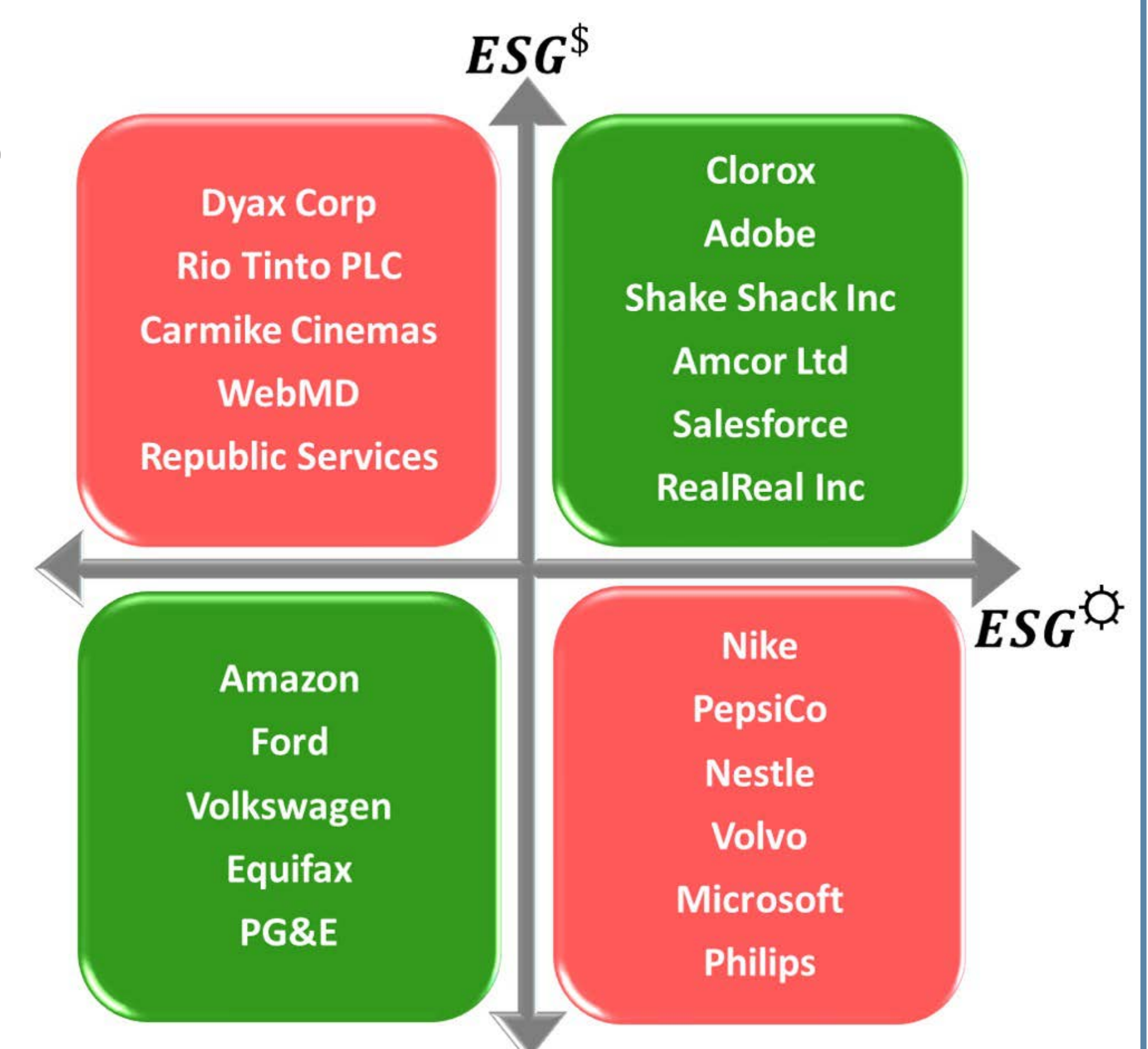
- MSCI (IVA) & RepRisk (RRI)

$$: ESG^{\text{gear}} = IVA$$

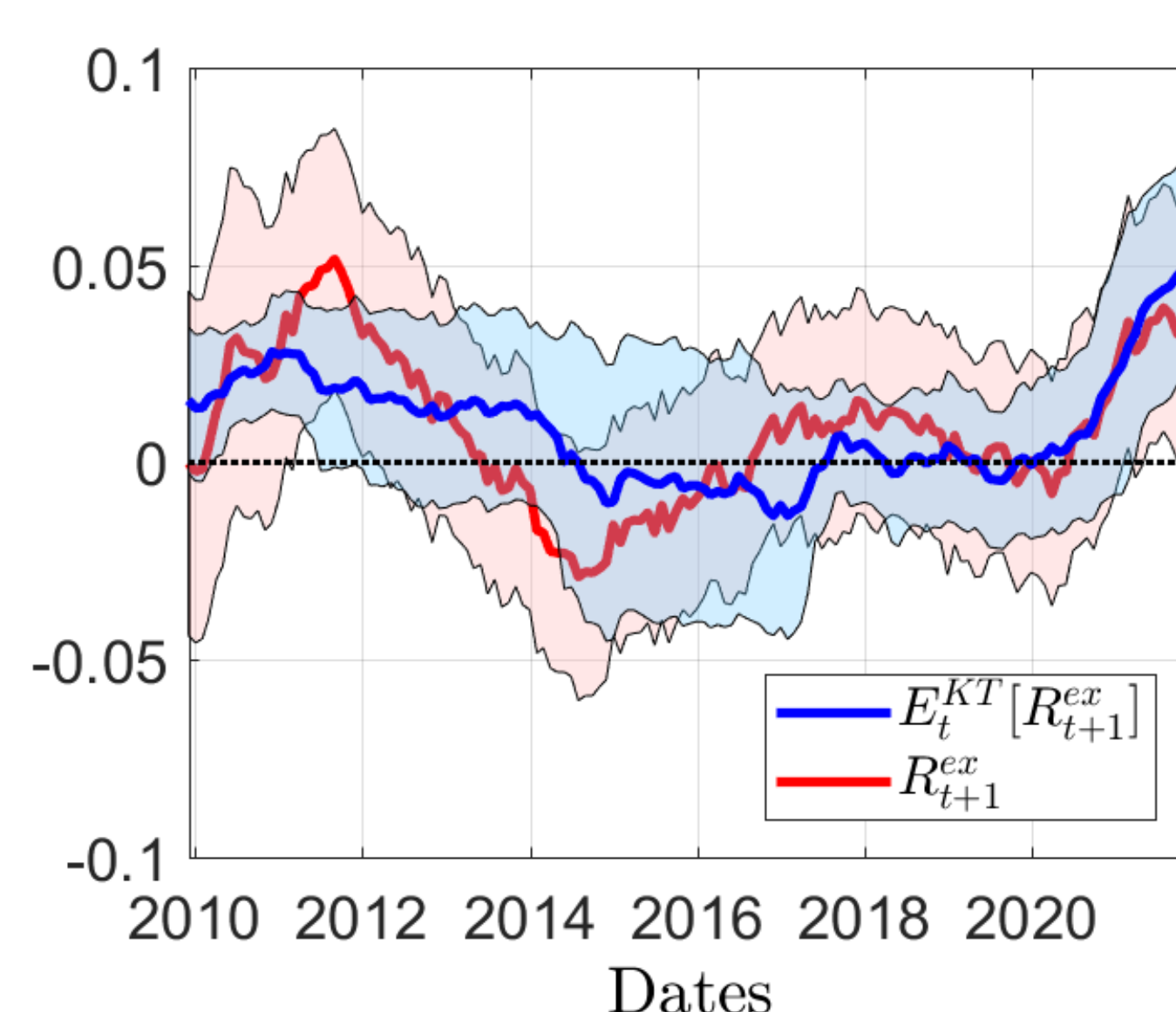
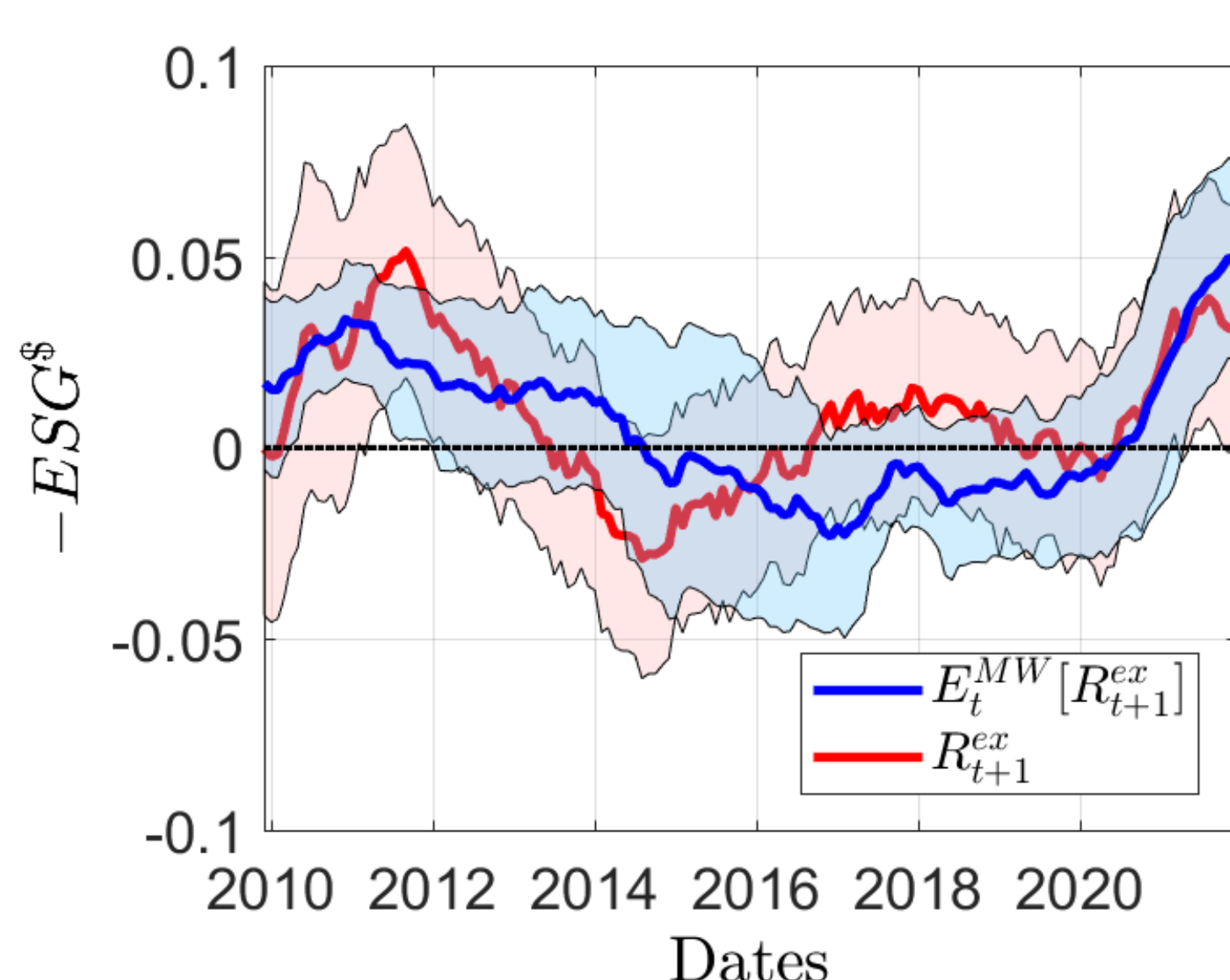
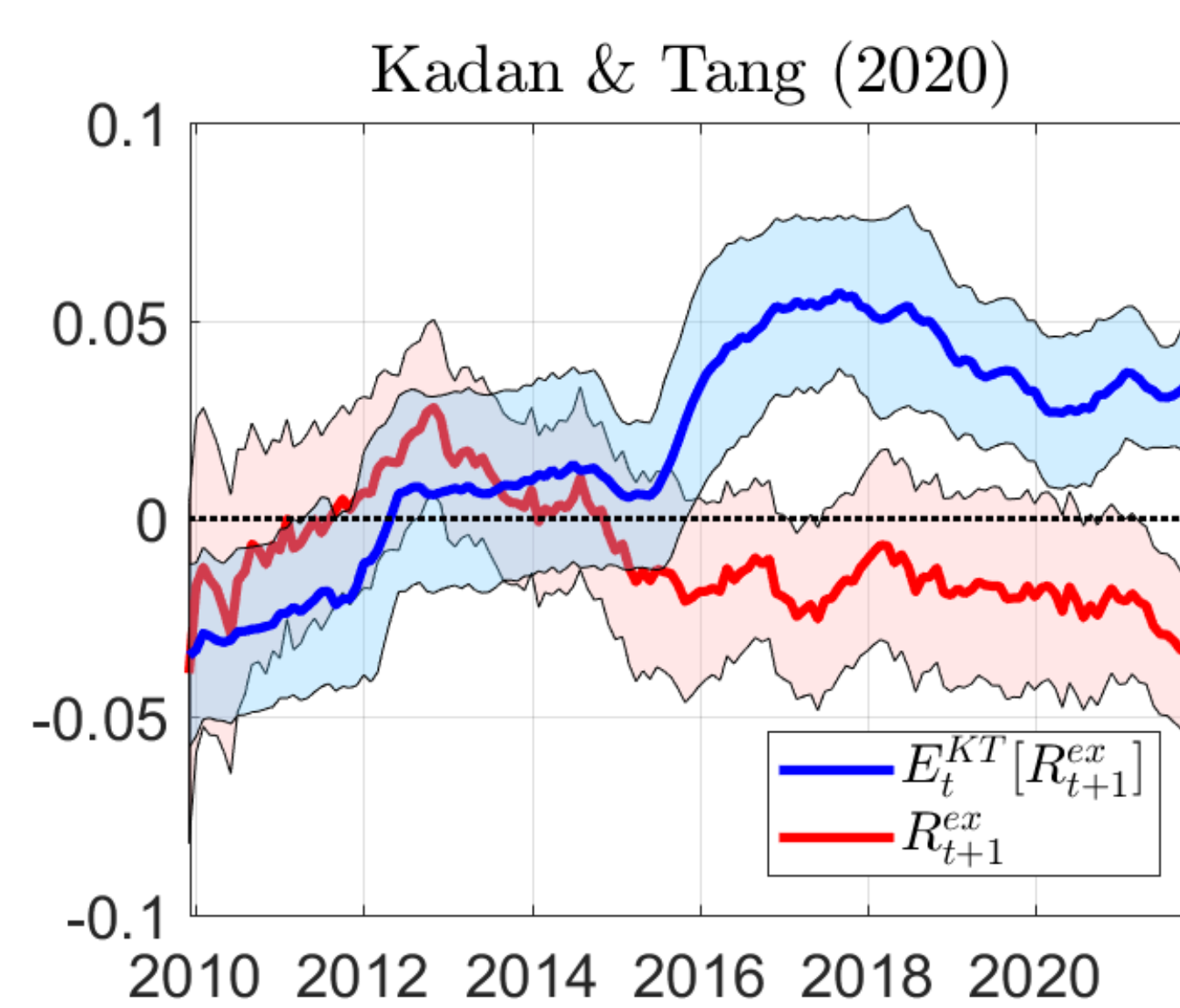
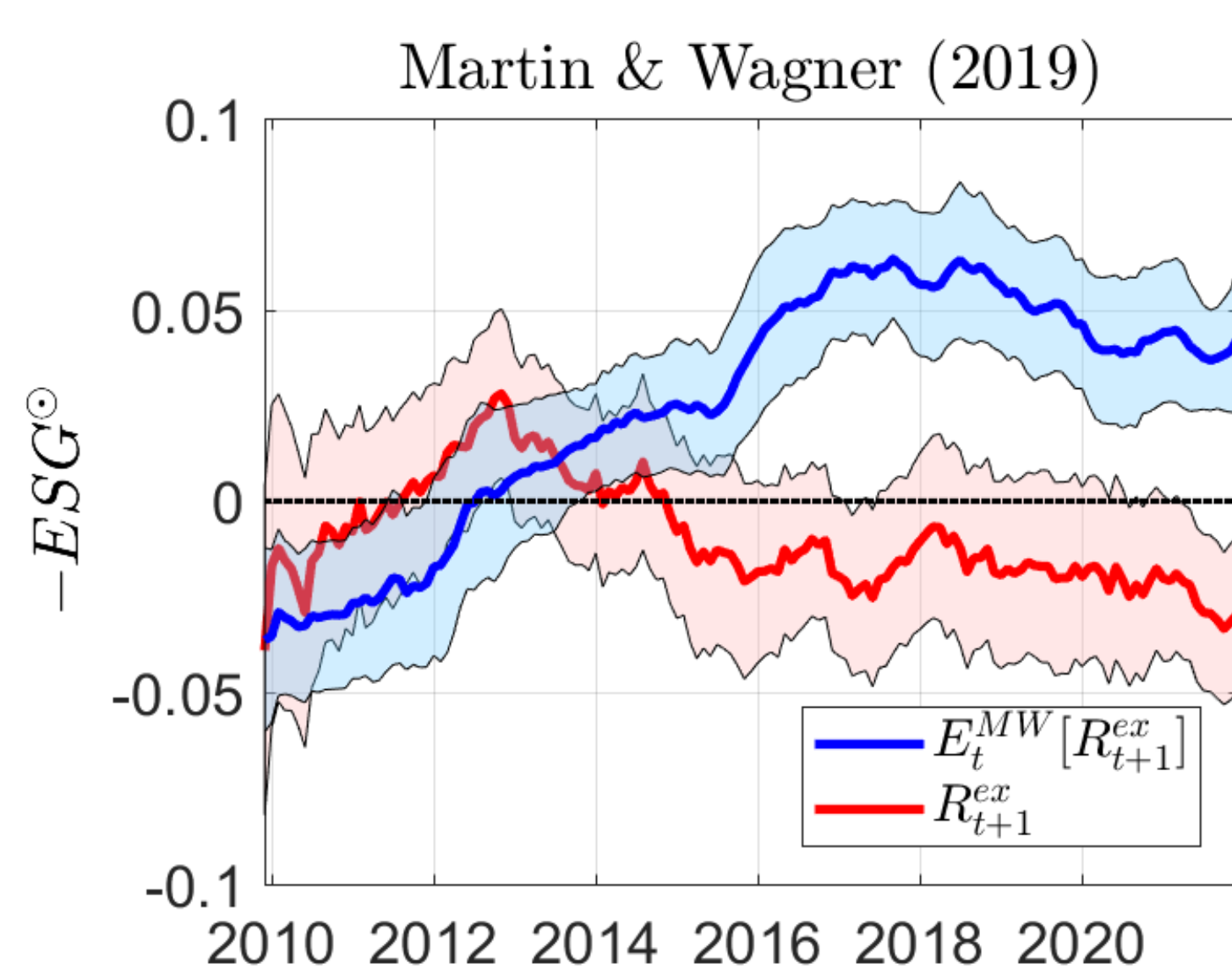
$$: ESG^{\text{dollar}} = -RRI$$

$$: Cor(ESG^{\text{gear}}, ESG^{\text{dollar}}) \approx 0$$

- Only ESG^{dollar} predicts reg. penalties & litigations
 - Yang (2021) & Glossner (2021)



RESULTS



- Option-implied **ex-ante** expected returns

$$- \mathbb{E}_t^{MW}[R_{t+1}^{ex}] \text{ \& } \mathbb{E}_t^{KT}[R_{t+1}^{ex}] \text{ (in blue)}$$

– **Negative non-pecuniary & pecuniary ESG premia**

– **Sizable** up to 1.6% and 3.2% p.a. over 1-month-ahead expected returns, respectively, when comparing low-est vs. highest quintiles within S&P 500 stocks

- Realized returns (in red) **mask** ESG^{gear} premium

– Bias in R_{t+1}^{ex} mainly arises from **trending capital with non-pecuniary motives**

- Cyclicalities

– Only ESG^{dollar} premium evolves **counter-cyclically**

– ESG^{gear} premium is **pro-cyclical** and **intensifies in mid-2010s**

- External validity of ESG^{gear} & ESG^{dollar} as proxies

– All evidence point to the same direction, **implying their validity**

– Mutual funds (conventional vs. **ESG** funds)

– Risk-neutral distribution

- Pecuniary **hedging demand** against non-pecuniary loss