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ESG and investments implications

Peter Hermanrud
Phone : (+47) 24 13 36 22
Mobile : (+47) 95 18 48 86
E-mail : ph@sb1markets.no

Fredrik Gundersen
Phone : (+47) 24 14 36 28
Mobile : (+47) 45 45 29 30
E-mail : fg@sb1markets.no

SpareBank 1 Markets
Phone : (+47) 24 14 74 18
Visit address : Olav Vs gate 5, 0161 Oslo
Post address : PostBox 1398 Vika, 0114 Oslo

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Investment Summary

- ESG represents the biggest change in investor perspective since dot.com. You are not respectable if you don't invest responsibly
- Managers of USD 12.1 tn have pledged to exit fossil shares. For comparison, the Global AUM is ~ $90 tn
- Virtue shares has been done great, matching Nasdaq during dot.com
- All Vice sectors (being excluded form benchmarks) have underperformed
- Except for the 'outliers' we see limited share price effect of ESG till now. Key reasons are inconsistent ratings, and the market is mainly rerating the 'E' in ESG
- We expect to see increasing diversity of valuation multiples based on emissions to production

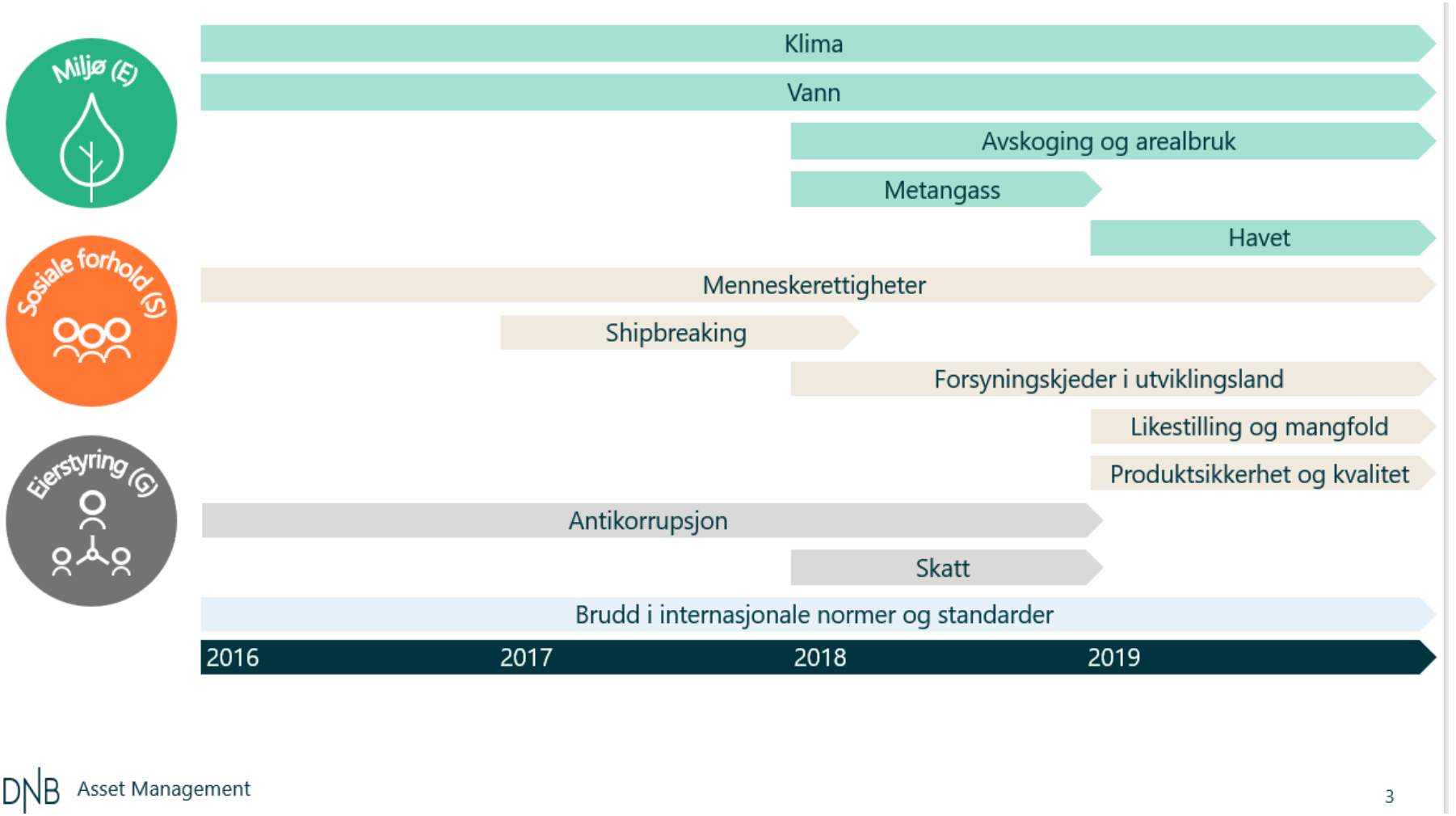
ESG is increasingly important for shareholders

EY survey of 260 institutional investors: 50% of investors say they 'rule out immediately' investments that 'disclose risks from climate change'. Up from 8% in 2017. Presumably includes Energy shares?

Source: EY Survey (260 institutional investors globally), SB1 Markets

Norwegian fund managers focus on all aspects of ESG. Here DNB

KLP, DNB and Storebrand abt. 3-5 dedicated ESG managers, around 10-20% of the team. But all portfolio managers work with ESG issues



How do fund managers work with ESG issues?

Based on presentations by DNB, Storebrand and KLP

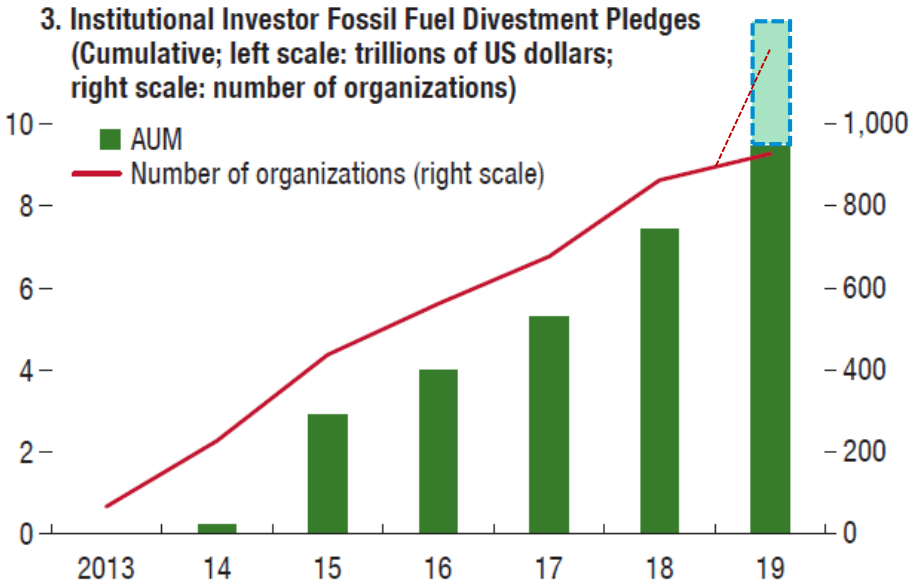
Activity	Example	End result
Reporting	Emissions/kg produced. Scope 3.	Better information and decision support
Standard setting	Best practice emission / kg	Minimum requirements
Active ownership	Voting, election committee, dialogue with the companies	Company changes behavior, or new board members
Investor cooperation	Carbon 100+ (40% of global AUM). Best effect when **local and** large owners	Changed reporting or behavior
Exclusions	Exclude companies with unsustainable business practices	Exclusion list, ref. NBIM. Offer no-carbon index funds
ESG integration	Cooperation between dedicated ESG analyst and fund manager	Lower valuation of weak-ESG companies due to exp. cost of future requirements
Thematic investments	Invest in companies that actively work for a more sustainable world	Storebrand Global ESG, ESG+, Global Solutions

Litt om forskning på området

Samt ESG og eiendom

An increasing share of investors has pledged to exclude fossil fuels

1000 institutions with $12.1 tn in assets have pledged to cease new investment, divest within 3-5 years and invest more in 'climate solutions'. Global AUM is ~ $90 tn



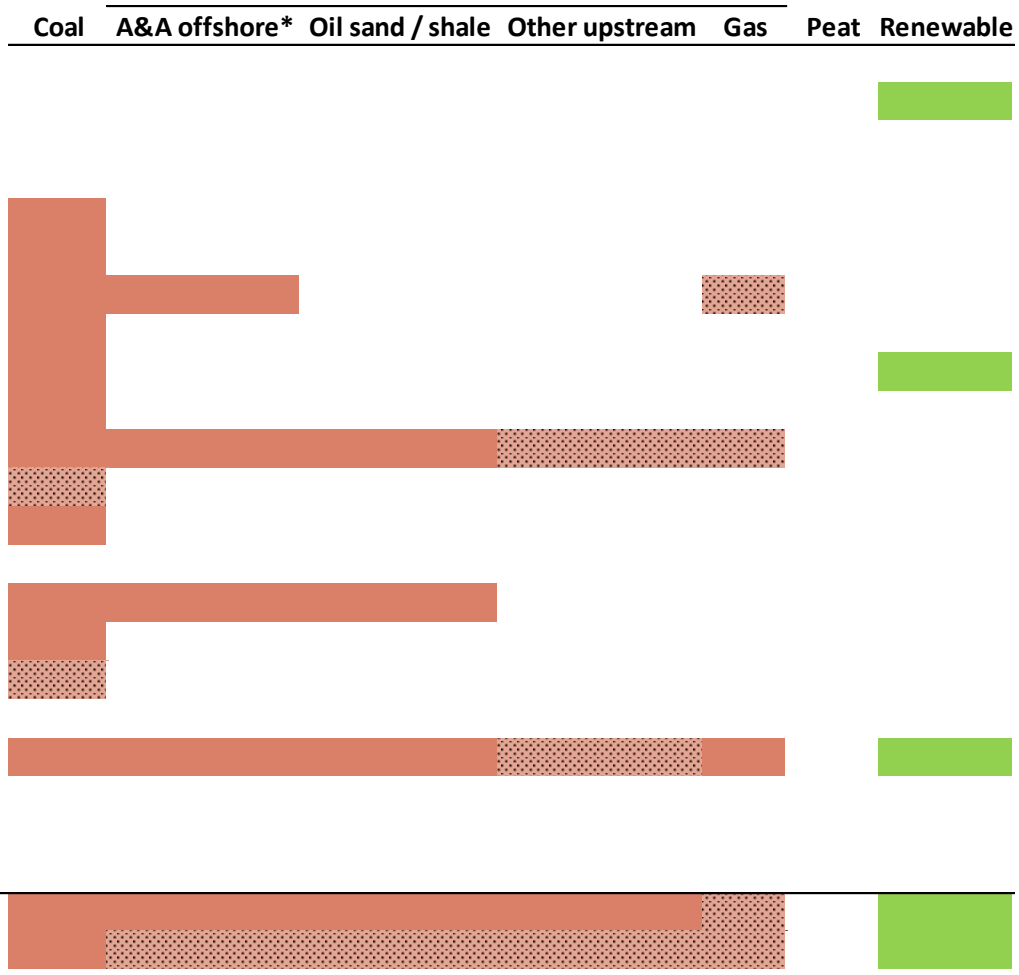
- **Black Rock t**o exit coal etc, launch index funds that exclude fossil fuels and use as default in mixed products ex-US retirement ($7tn, Jan 20). Joined…
- **…Climate Action 100+** ($ 41tn incl Black Rock) pushing for disclosure and emission reductions
- **New York City**: Decided to divest pension fund from fossil fuels ($200bn, Jan 18)
- **University of California**: Divestment from the fossil fuel industry (Sep 19)
- **Ireland:** National investment fund required to sell all investments in coal, oil, gas and peat «as soon as is practicable» (€ 8bn)
- **University of Oslo**: To stop all investments in fossil fuel (NOK 1bn, Oct. 19)
- Impossible to find **Norwegian Index Funds** that track full indexes: All exclude some shares
- **Fossil free funds** have assets of more than USD 100bn
- **NBIM** to sell upstream E&P + coal, set aside $10bn for renewables,
- **EIB** to invest $1000bn in renewables by 2030

Source: DivestInvest, The Guardian, British Columbia University, CNBC, Dagsavisen

Banks ex-China no longer lend to coal, and increasingly exclude other fossil fuels

Lending policies in world's 20 largest banks (EUR bn), SB1M interpretation

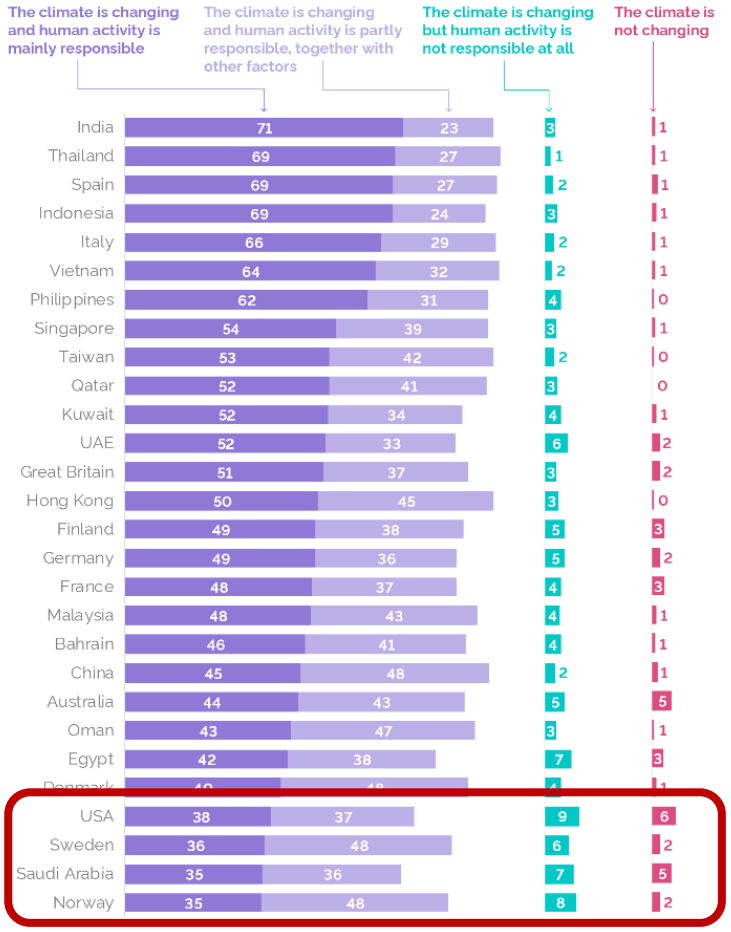
Company	Country	Loans (EURbn)
Industrial and Commercial Bank of China	China	1,990
China Construction Bank	China	1,767
Bank of China Ltd	China	1,530
Agricultural Bank of China Ltd	China	1,523
Banco Santander SA	Spain	883
Mitsubishi UFJ Financial Group	Japan	869
HSBC Holdings PLC	UK	866
JPMorgan Chase & Co	US	851
Wells Fargo & Co	US	842
Bank of America Corp	US	831
BNP Paribas SA	France	766
Mizuho Financial Group Inc	Japan	637
Sumitomo Mitsui Financial Group	Japan	632
Bank of Communications	China	630
ING Groep NV	Netherlands	592
Citigroup Inc	US	586
Lloyds Banking Group PLC	UK	558
China Merchants Bank Co Ltd	China	509
UniCredit SpA	Italy	472
Toronto-Dominion Bank	Canada	468
International financial institutions / multilateral banks		
	EIB	
	World Bank	



Source: Company reports, World Bank, EIB, Bloomberg, Reuters, FT, TCFD, SB1 Markets

Climate screening is not a Norwegian or U.S. phenomenon. Rather the contrary

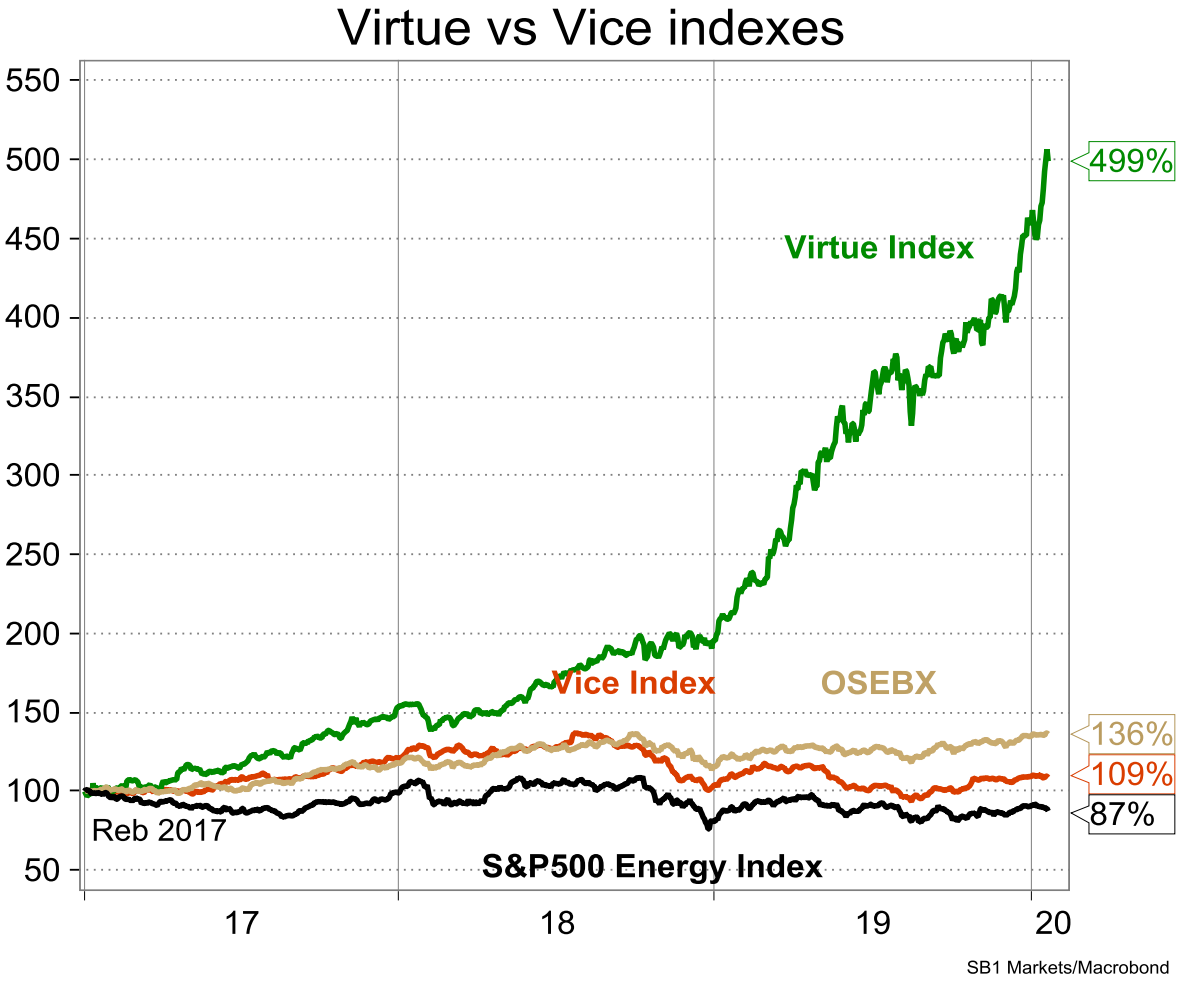
Norway, Saudi and the U.S. have a large proportion of deniers. Other survey shows Norwegians are least concerned about the consequences (Travel here now and you'll understand why…).



Source: Yougov.co.uk, SB1 Markets.

Resulting in a lot of money chasing the same few “virtue shares”

While the horrendous Vice stocks get what they deserve…Greenwashing the key driver, but also ESG Funds, retail momentum investors.



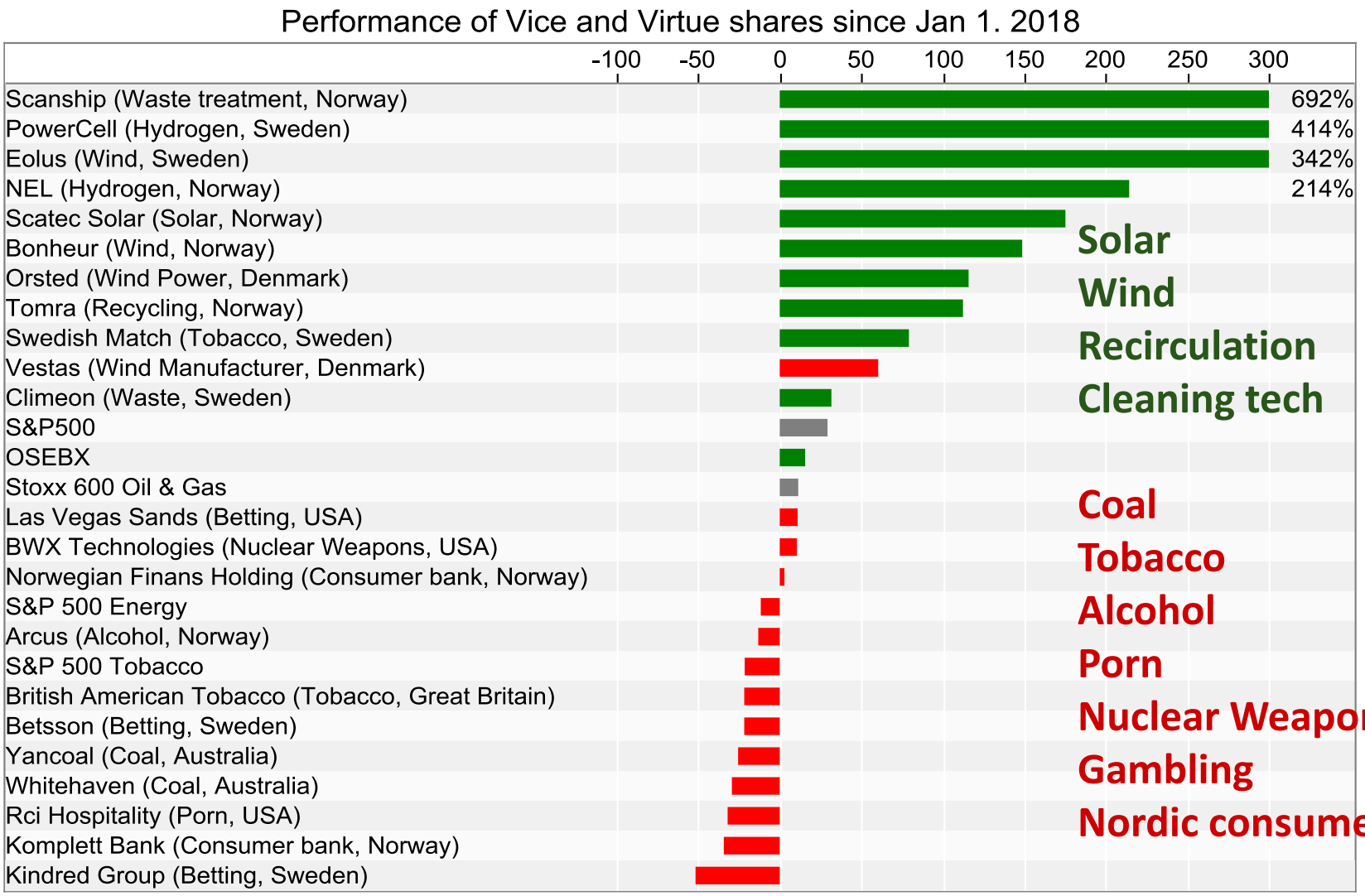
- **Virtue**: Based on Nordic companies with the strongest E profile (Actively doing good):
  Solar: Scatec Solar
  Wind Power: Bonheur, Ørsted,Eolus
  Wind Equipment: Vestas
  Hydrogen: NEL, Powercell
  Recycling, waste: Tomra, Scanship, Climeon

- **Vice:**
  Based on largest pure play companies, in or close to Norway:
  Coal: Yancoal and Whitehaven
  Betting: Kindred, Betsson and LVS
  Porn: RCI Hospitality
  Consumer banks: NOFI and KOMP
  Tobacco: S&P 500 Tobacco, Swedish Match
  Alcohol: Arcus
  Nuclear weapons: BWX Technologies

Indexes are equally weighted and rebalanced quarterly

All virtue shares have been strong, all Vice shares weak

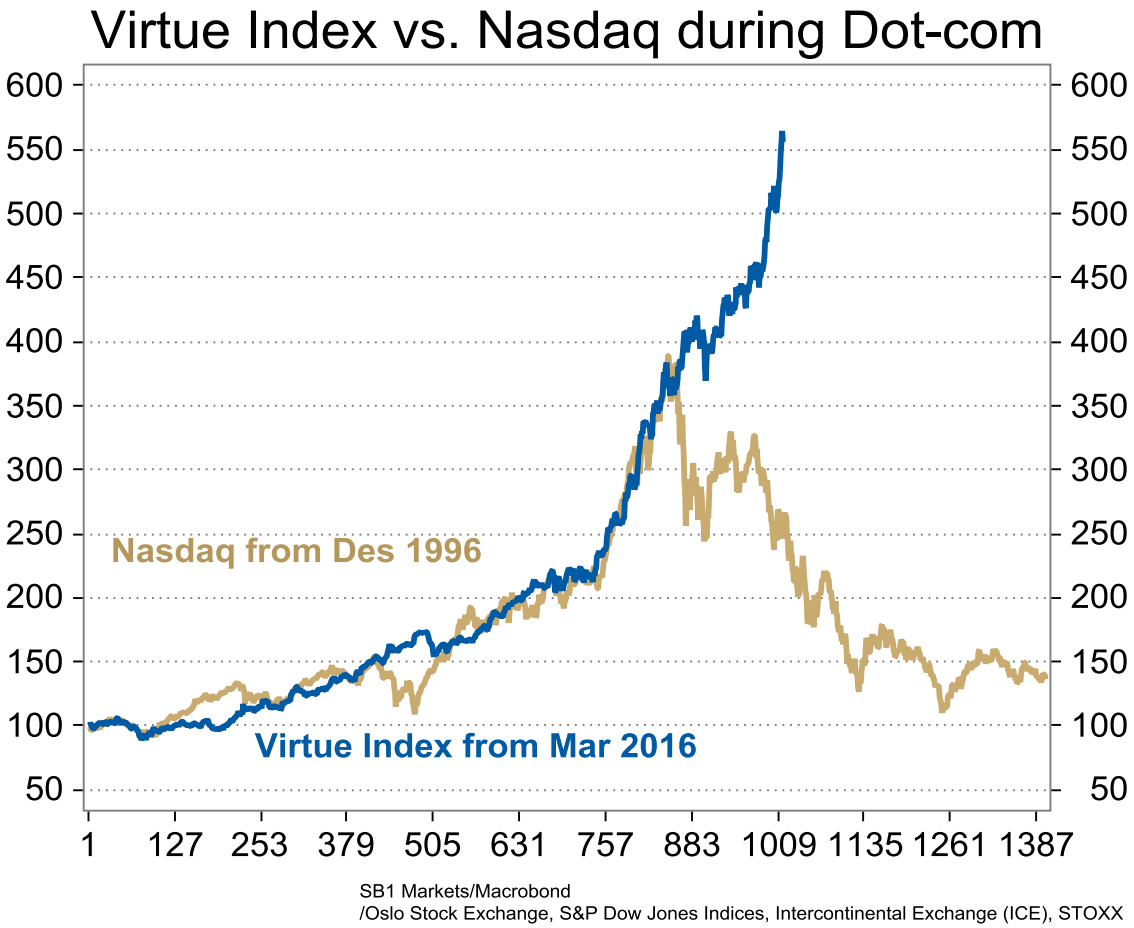
Green Virtue shares, red Vice (Sin) shares



SB1 Markets/Macrobond

The biggest change in investor perspective since dot.com has given similar rally

Like dot.com the rally started with fundamentals, but both may end in a bubble

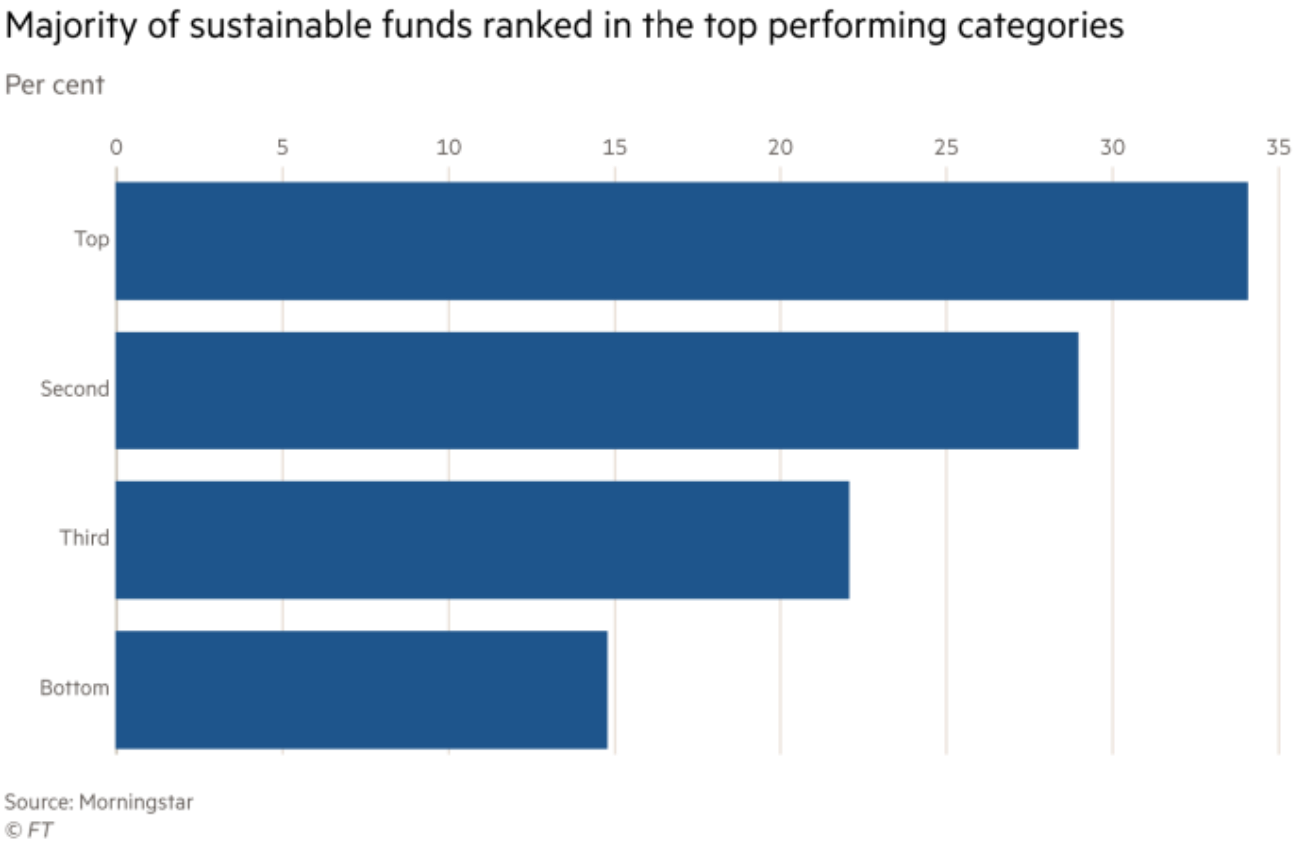


SB1 Markets/Macrobond
/Oslo Stock Exchange, S&P Dow Jones Indices, Intercontinental Exchange (ICE), STOXX

Initially, a self reinforcing prophecy: ESG funds are becoming winners

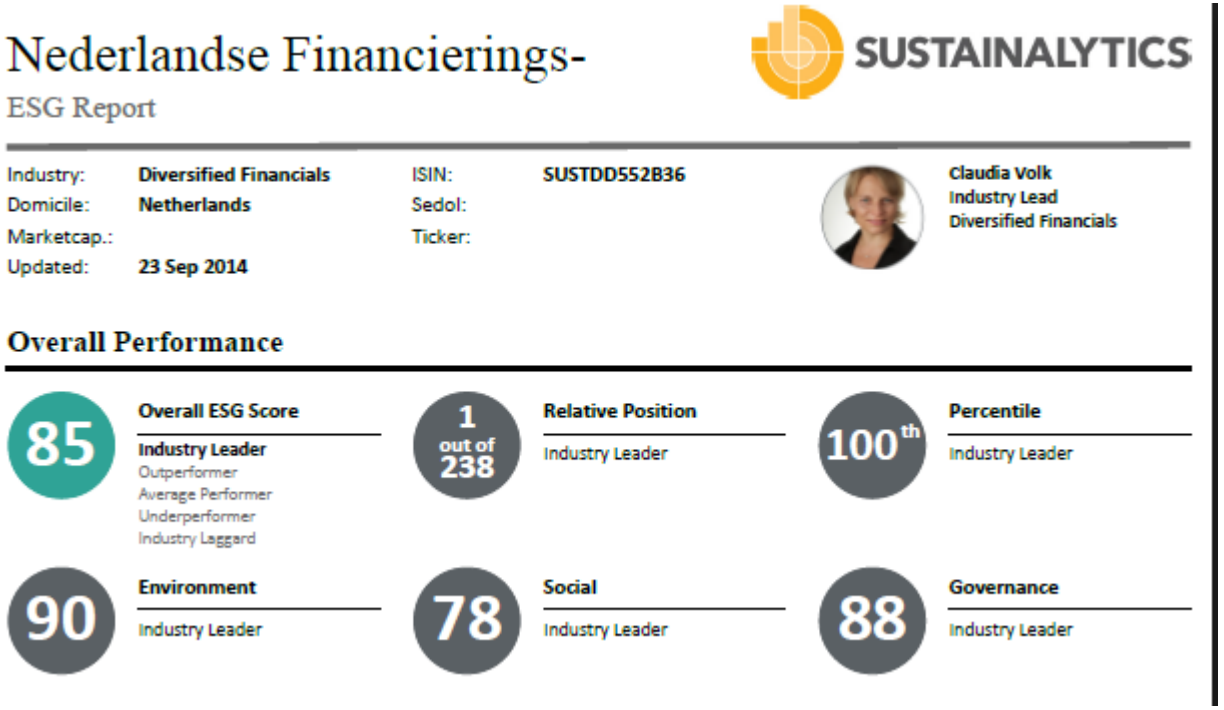
More money in ESG funds = More buyers of ESG shares = higher ESG share prices = better ESG fund performance = even more money in ESG funds. Soon: “ESG not only morally sound, but also more profitable”

“Sustainable funds more likely to be top performers, study shows”



Next step, there will be winners and losers within each sector

One winner in the ESG boom is the ESG rating agencies…



Nederlandse Financierings-

ESG Report

SUSTAINALYTICS

Industry:	**Diversified Financials**	ISIN:	**SUSTDD552B36**
Domicile:	**Netherlands**	Sedol:	
Marketcap.:		Ticker:	
Updated:	**23 Sep 2014**		

Claudia Volk
Industry Lead
Diversified Financials

Overall Performance

85 — **Overall ESG Score**
Industry Leader
Outperformer
Average Performer
Underperformer
Industry Laggard

1 out of 238 — **Relative Position**
Industry Leader

100th — **Percentile**
Industry Leader

90 — **Environment**
Industry Leader

78 — **Social**
Industry Leader

88 — **Governance**
Industry Leader

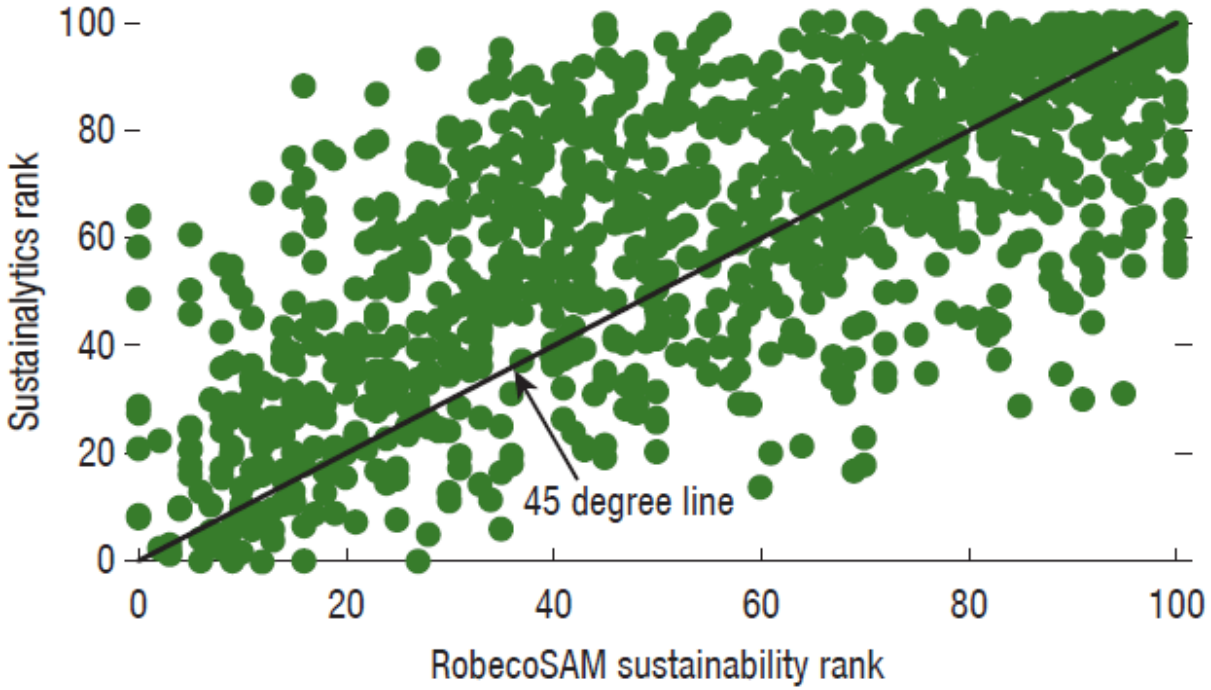
ESG er ikke forward looking

But till now, the picture is too inconsistent to have an effect

But consensus will change here, important to follow the trend

ESG scoring methodologies vary, partially reflecting the lack of a generally accepted ESG taxonomy ...

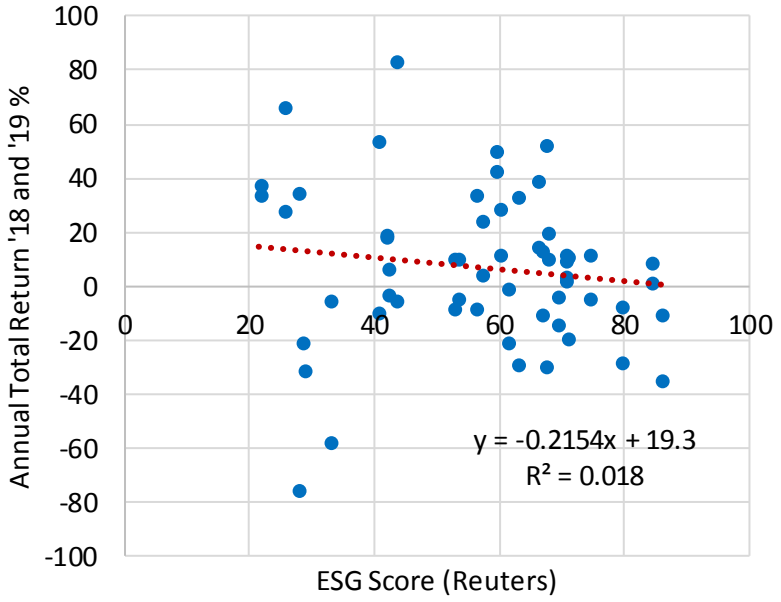
3. Relationship between ESG Score Ranks of Major Providers for Companies in the S&P 1200 Global Index



So we have seen no rerating of shares with high ESG score on Reuters

Key reason: Inconsistent ESG ratings, and market is chiefly rerating the 'E' in ESG, particularly emissions.

OSEBX shares: Total return vs ESG score



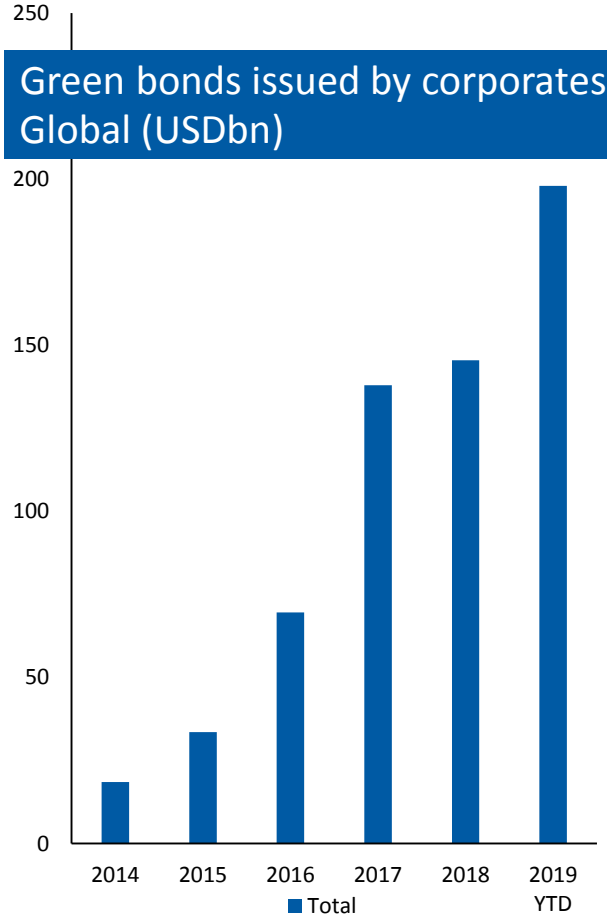
Reuters ESG score methodology

Pillar	Category	Indicators	Weight	Pillar weight
Environmental	Resource Use	19	11%	34%
	Emissions	22	12%	
	Innovation	20	11%	
Social	Workforce	29	16%	36%
	Human rights	8	4.5%	
	Community	14	8%	
	Product responsibility	12	7%	
Governance	Management	34	19%	31%
	Shareholders	12	7%	
	CSR strategy	8	4.5%	
		178	100%	100%

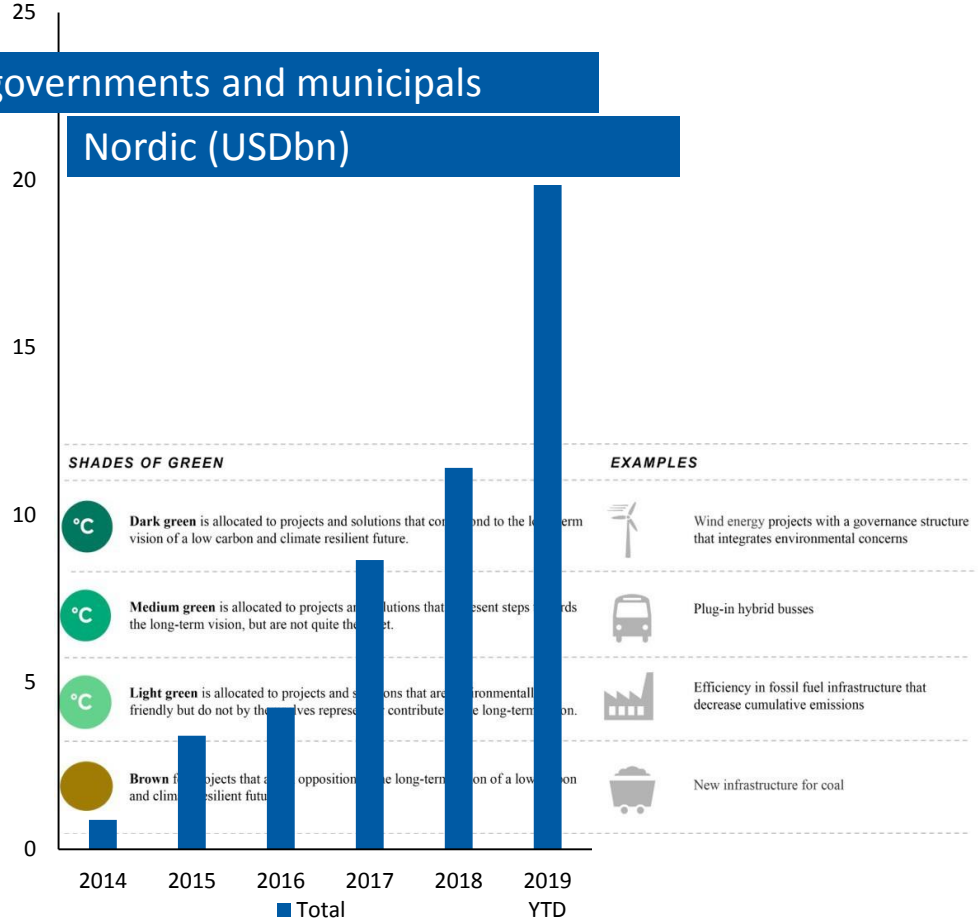
ESG is affecting bonds too, but small effect till now (2 bps?)

Increasing funds allocated to green purposes – widening pricing spread in the future? The most frequent green bond issuers in the Nordics at the moment are **utilities, real estate** and **banks**

Green bonds issued by corporates, governments and municipals
Global (USDbn)



Nordic (USDbn)



Norway 3.5 bn. Norwegian ISIN HY green bonds: Teekay, Småkraft, Stena Metall Finans, Scatec Solar, Vardar etc. Cicero

Source: Bloomberg. Criteria: Use of proceeds to be applied towards projects or activities that promote climate change mitigation or adaption, or other environmental sustainability purposes

Some possible ‘Next Steps’

- Emergence of an ‘industry standard’ with respect to ESG reporting

- More visible price differentiation between companies within a sector based on
- - ESG scores, if investors agree on how scoring should work
- - Easily identifiable parameters such as GHG emissions / tonne produced

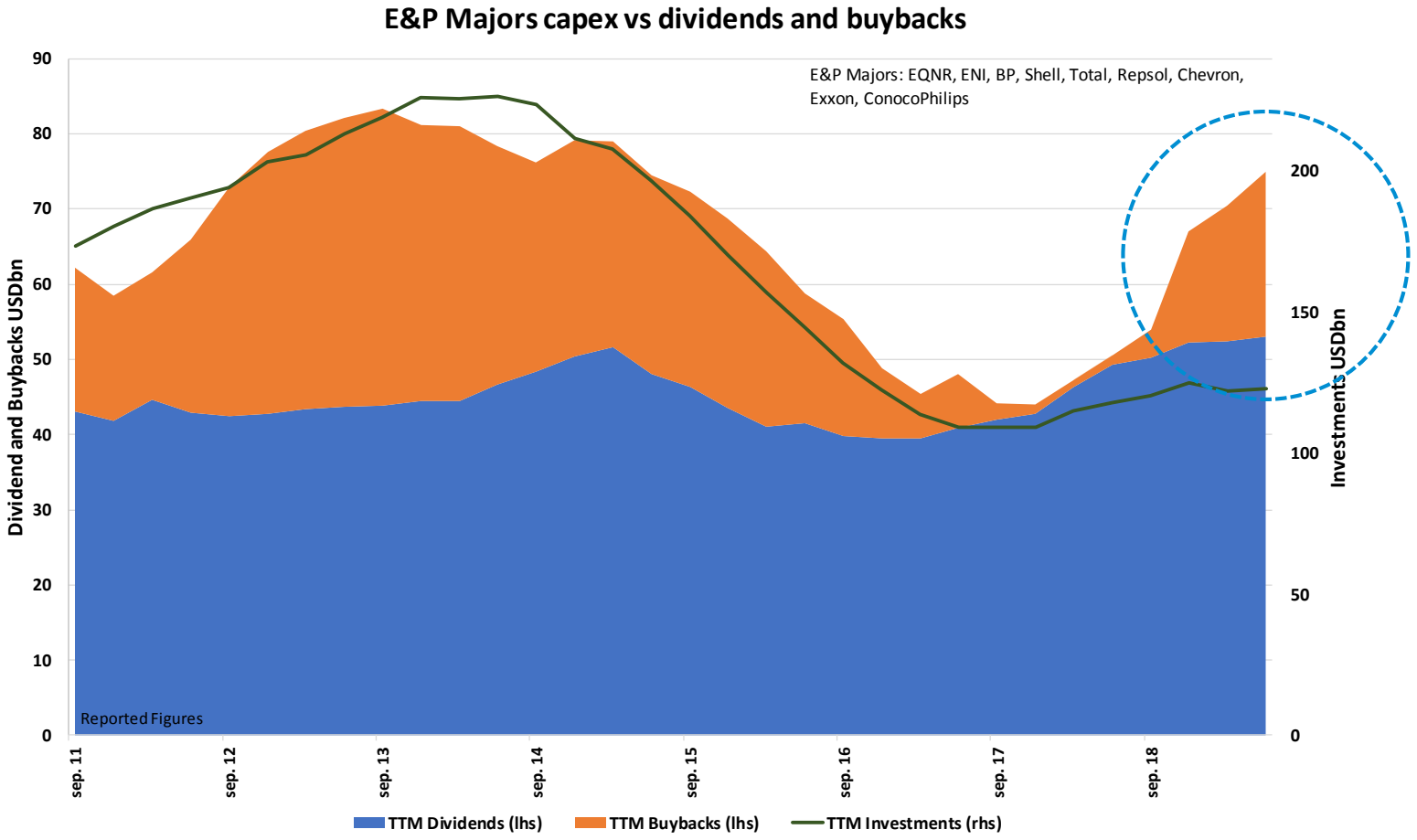
- More investors willing to invest in companies with low ESG score, but with an activist approach with respect to ESG once they are owners

- Or of course, the current trend could level out and reverse (Cyclical ESG focus?)

Oil E&P share implications

Energy investors are demanding dividends now rather than investments…

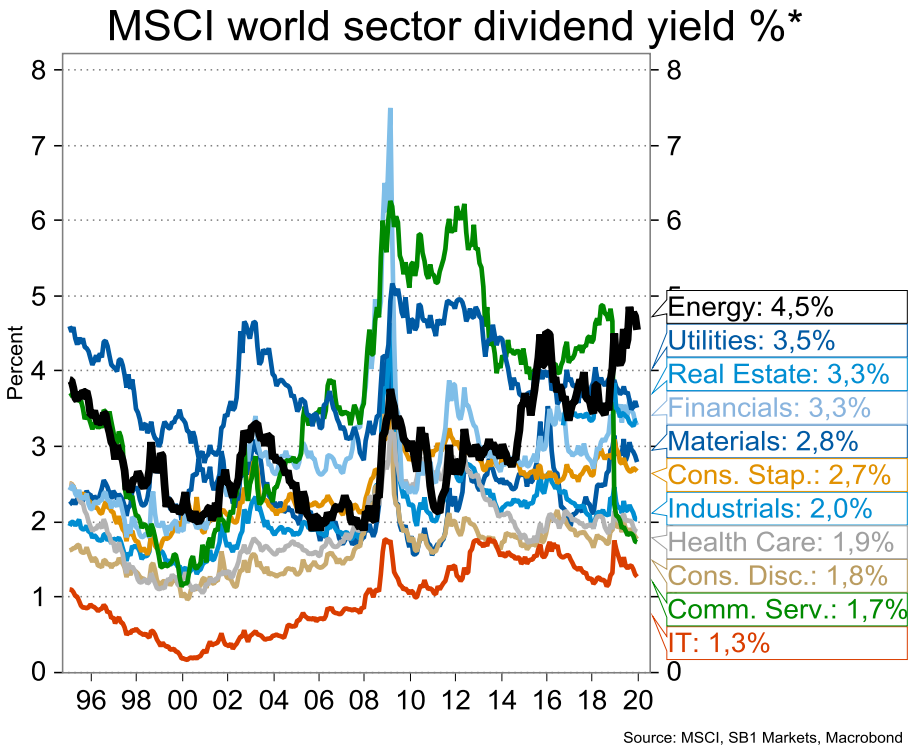
Companies are paying dividends and buying each other rather than investing



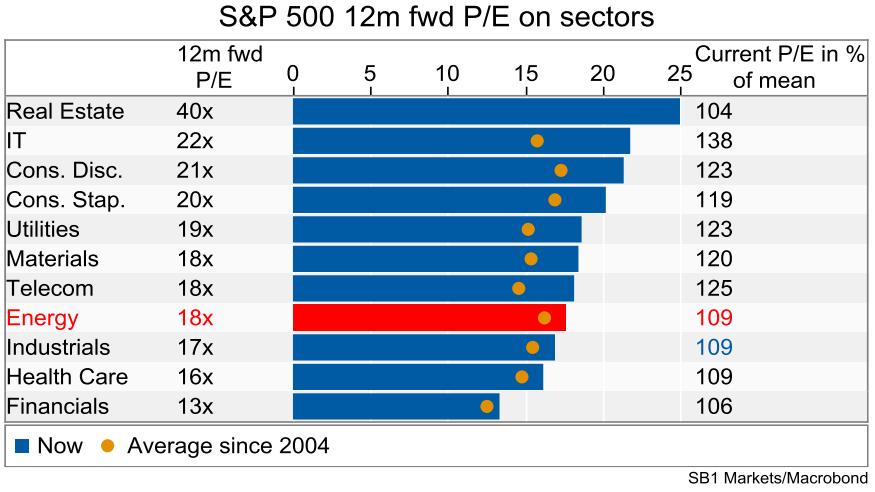
Source: Macrobond, OSE, SB1 Markets.

Energy has become unusually cheap…

Highest dividend yield. Lowest P/E and Shiller P/E compared to 15-year history



Source: MSCI, SB1 Markets, Macrobond



SB1 Markets/Macrobond

Source: MSCI, SB1 Markets, Macrobond.

…but may well become cheaper if investors sell out as they promise

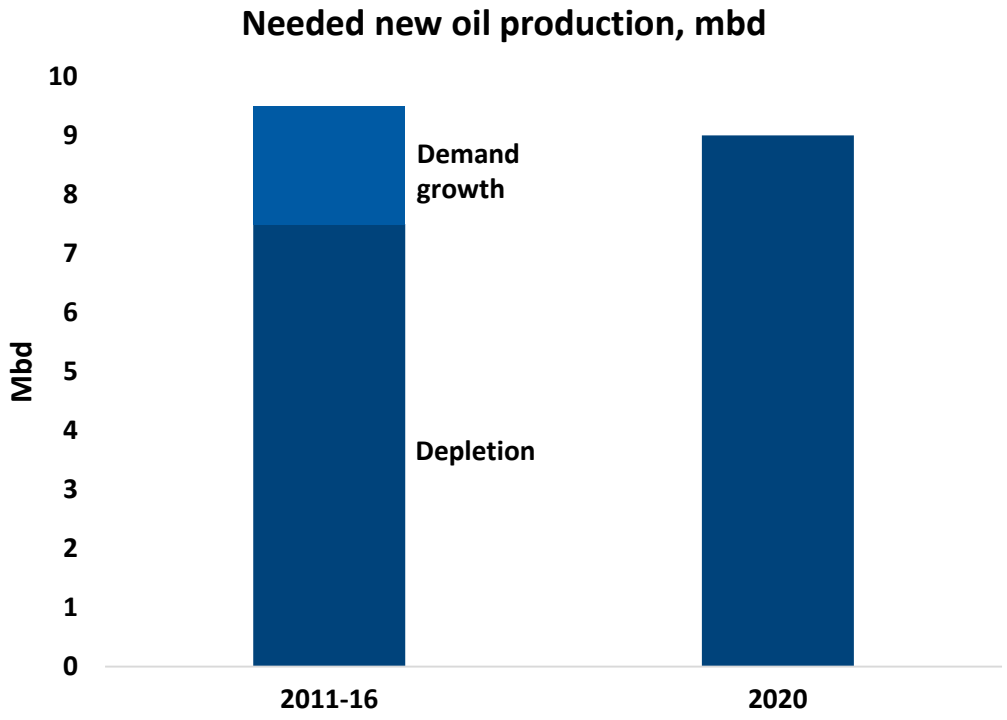
If 20% of funds become fossil free and 40% are indexed portfolios, remaining active managers must have a massive overweight position in energy of 9% vs. 6% in the index. Even lower fossil valuations than today?

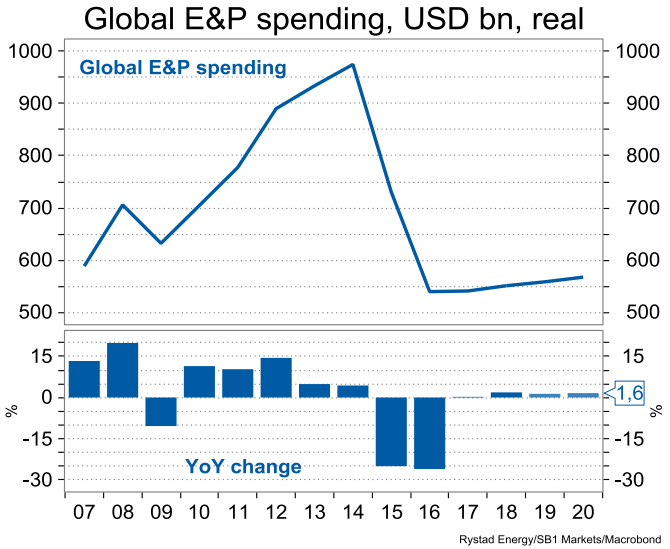
	Non-fossil	Index	All other	SUM
Share of assets	20%	40%	40%	100%
Fossil weight	0%	6%	9%	6%
Sum	0%	2.4%	3.6%	6%

Source += The Economist

Hard to maintain oil production long term after 35% lower E&P spending

Most new production just replaces depletion. Depletion has increased due to shale and a larger production base (8% to 9%). So needed new production is almost unchanged

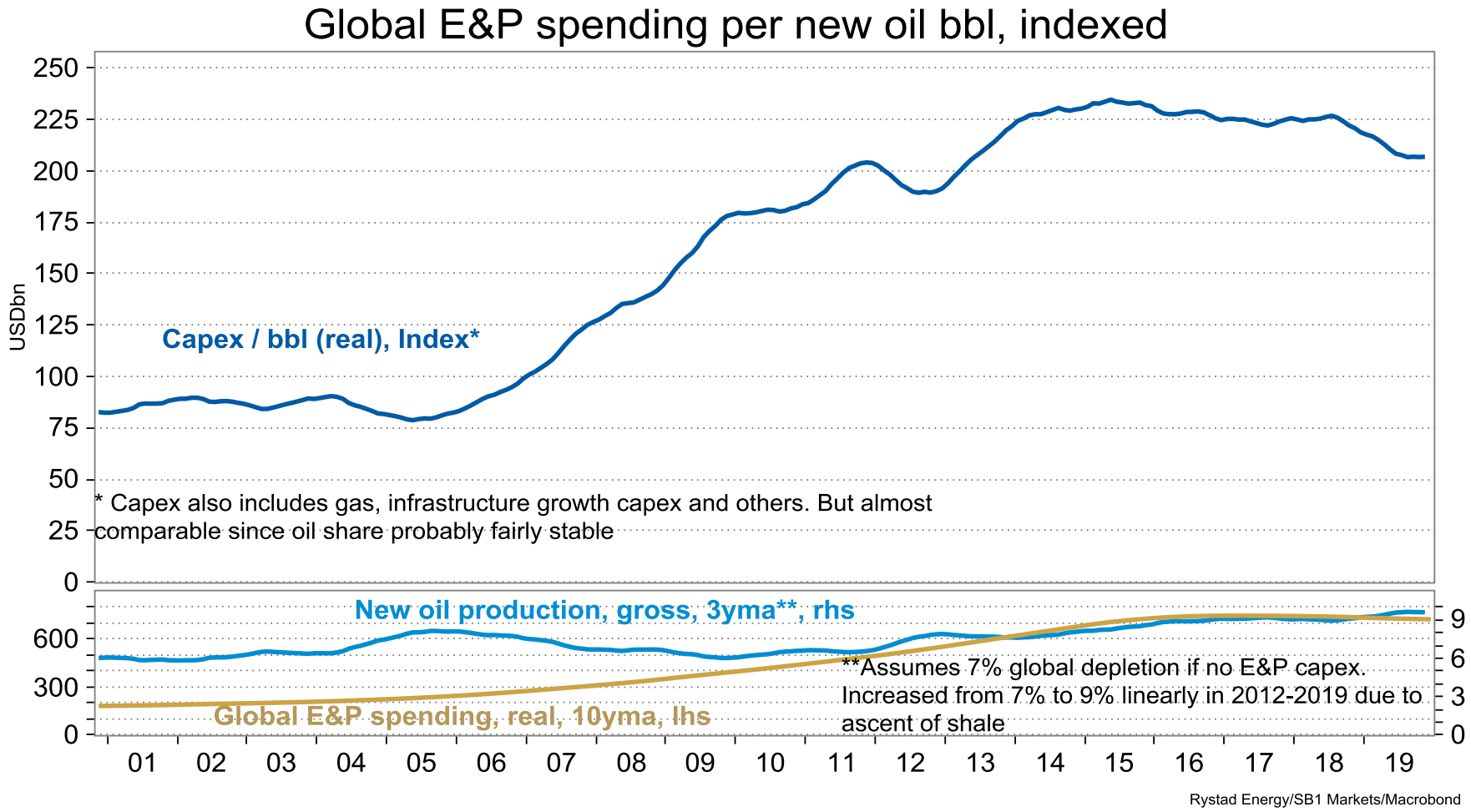




	2011-2016	Now	Diff
Global E&P Capex, USD bn	861	559	-35%
Depletion 7.5-9% @ zero capex, Mbbl	7.5	9	
Demand growth, Mbd	2	0	
Needed new oil, Mbd	9.5	9	-5%

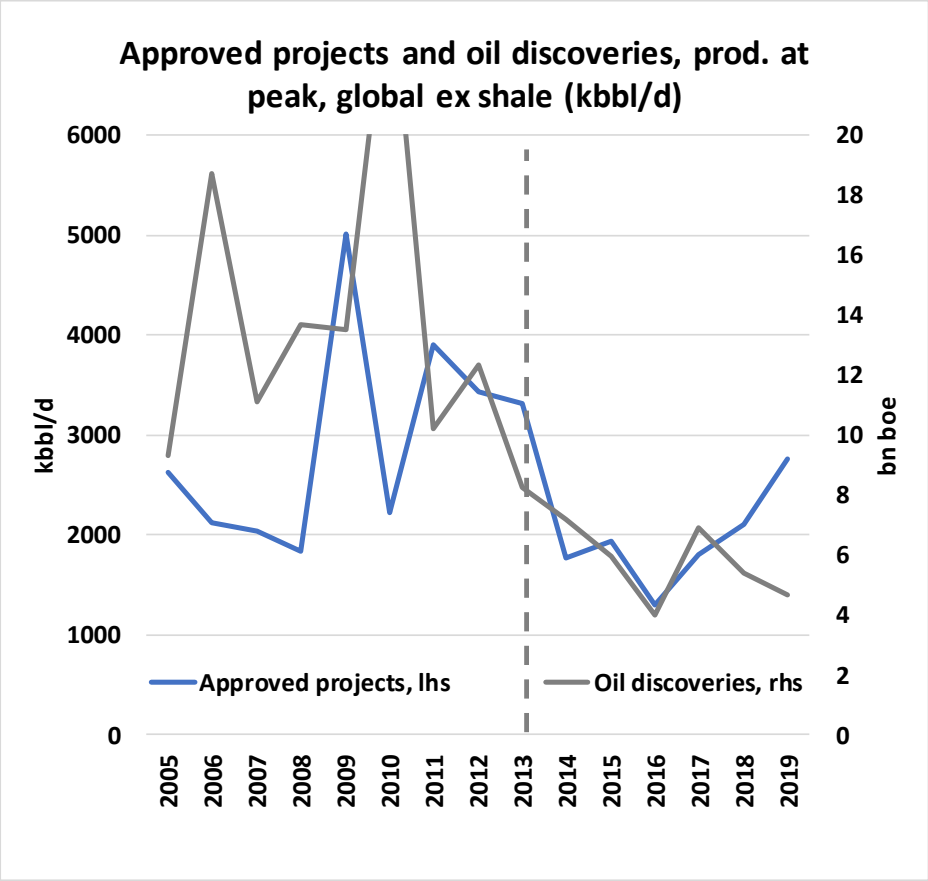
Historically, we have needed to spend more USD per new barrel, not less

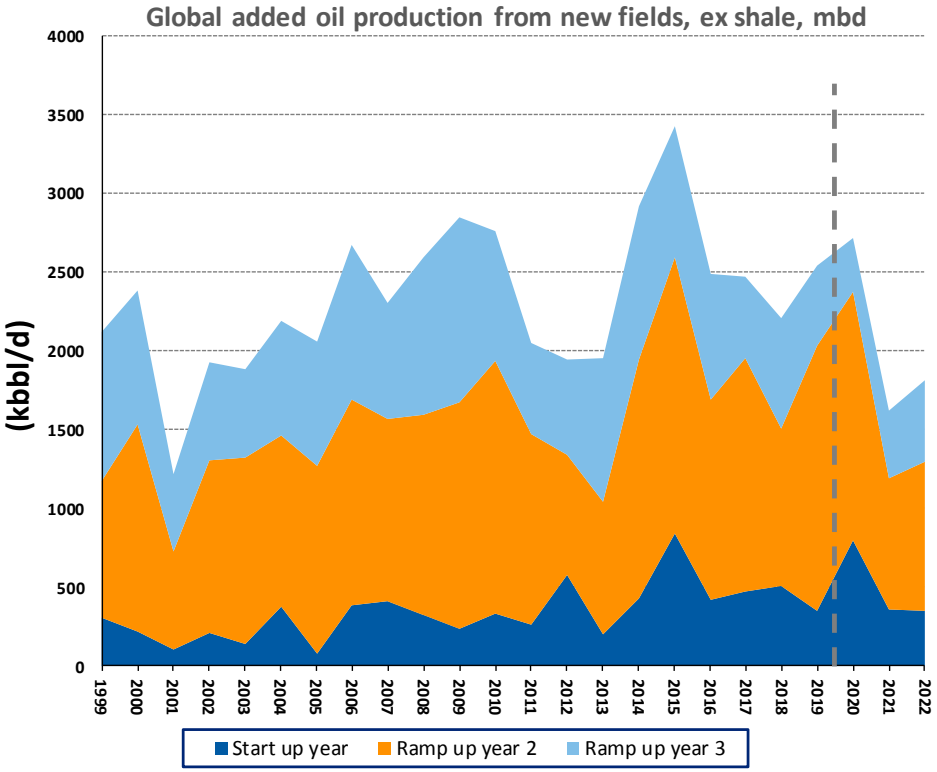
Geology has trumped technology



Project approvals + discoveries fell sharply from 2014. Effect visible from 2021

Similar decline for global exploration wells

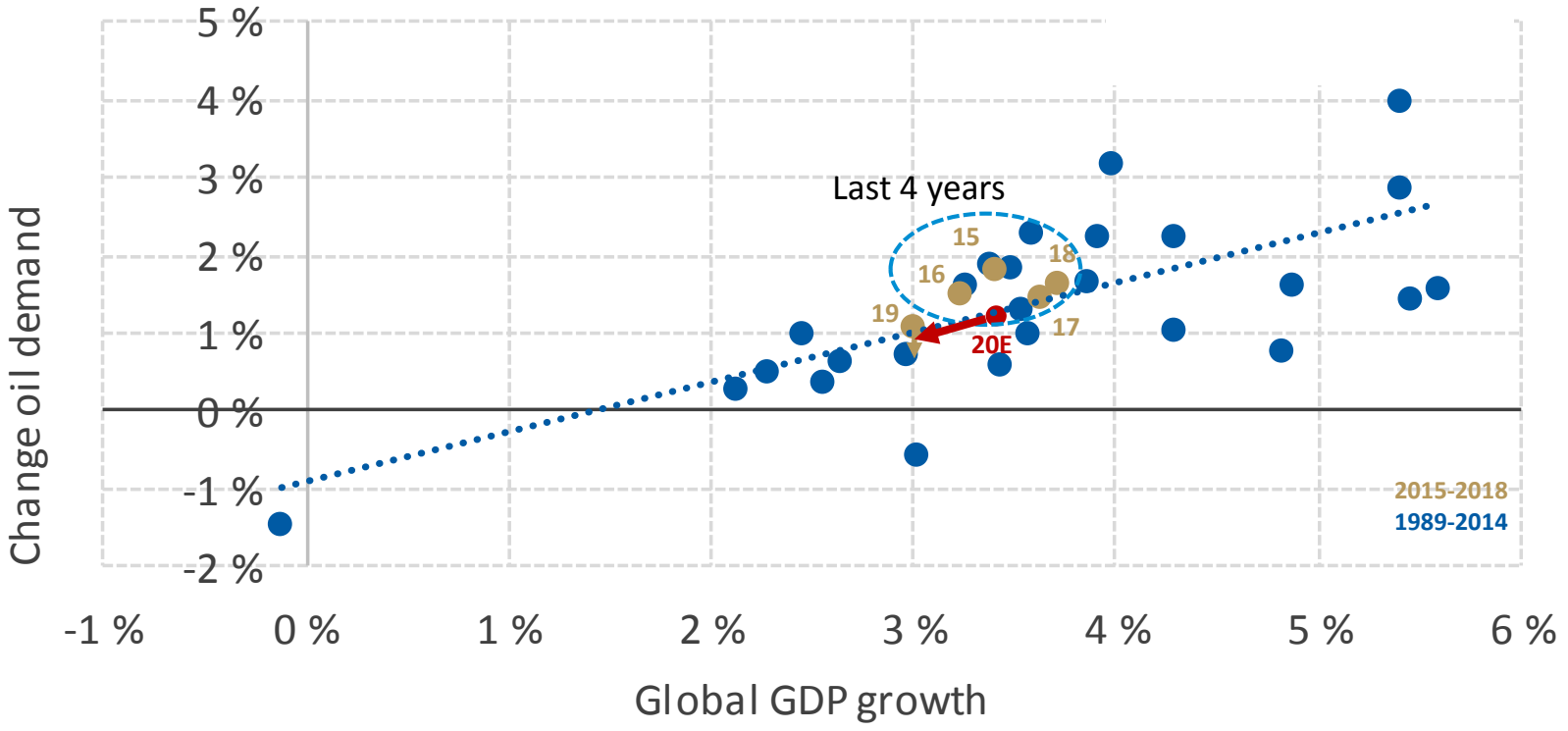




Legge inn global exploraion wells

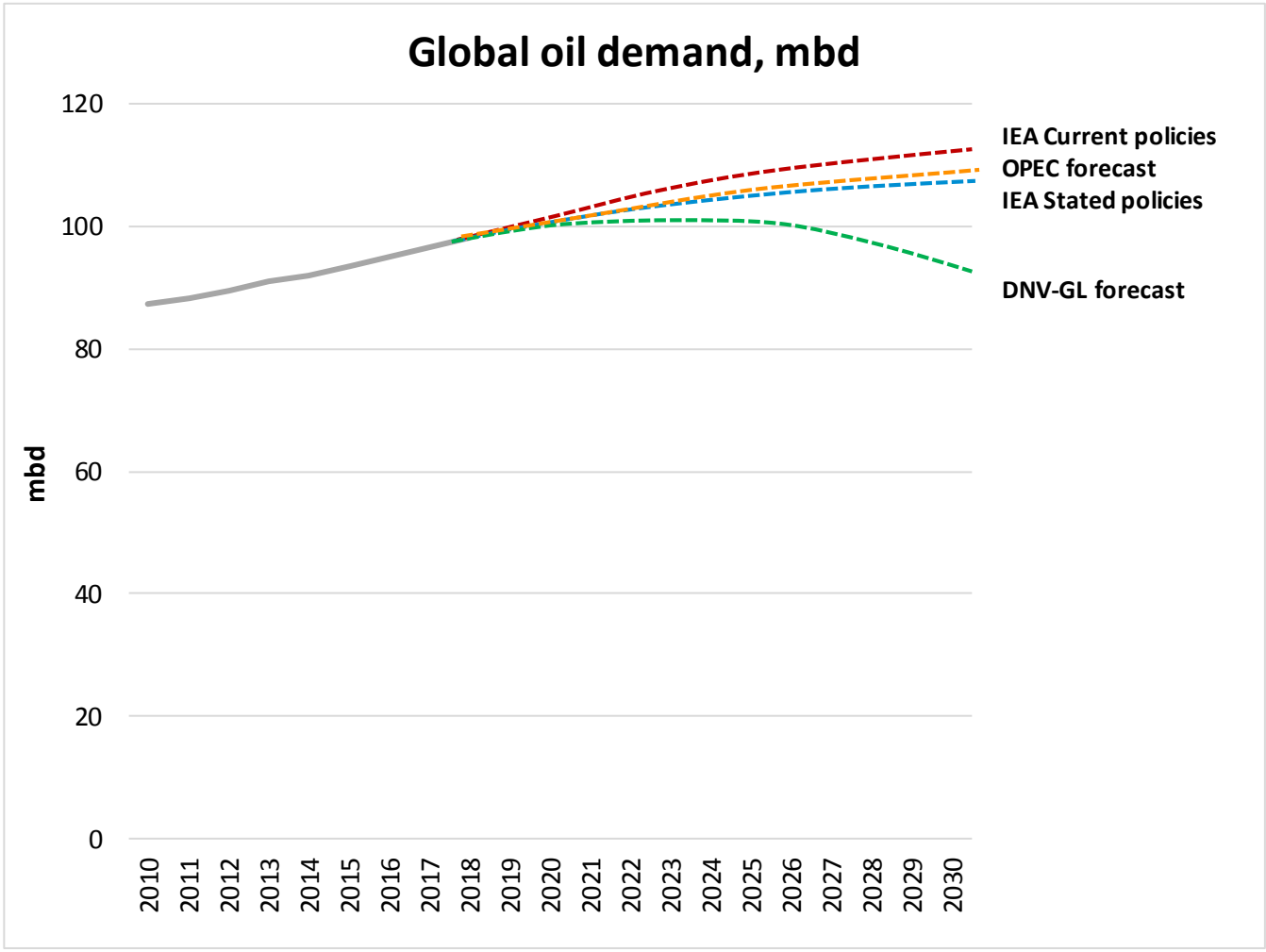
Large changes in investor behavior – no change in oil demand!

Zero signs that climate actions have affected oil demand, at least yet. If anything, demand growth has been higher than usual!



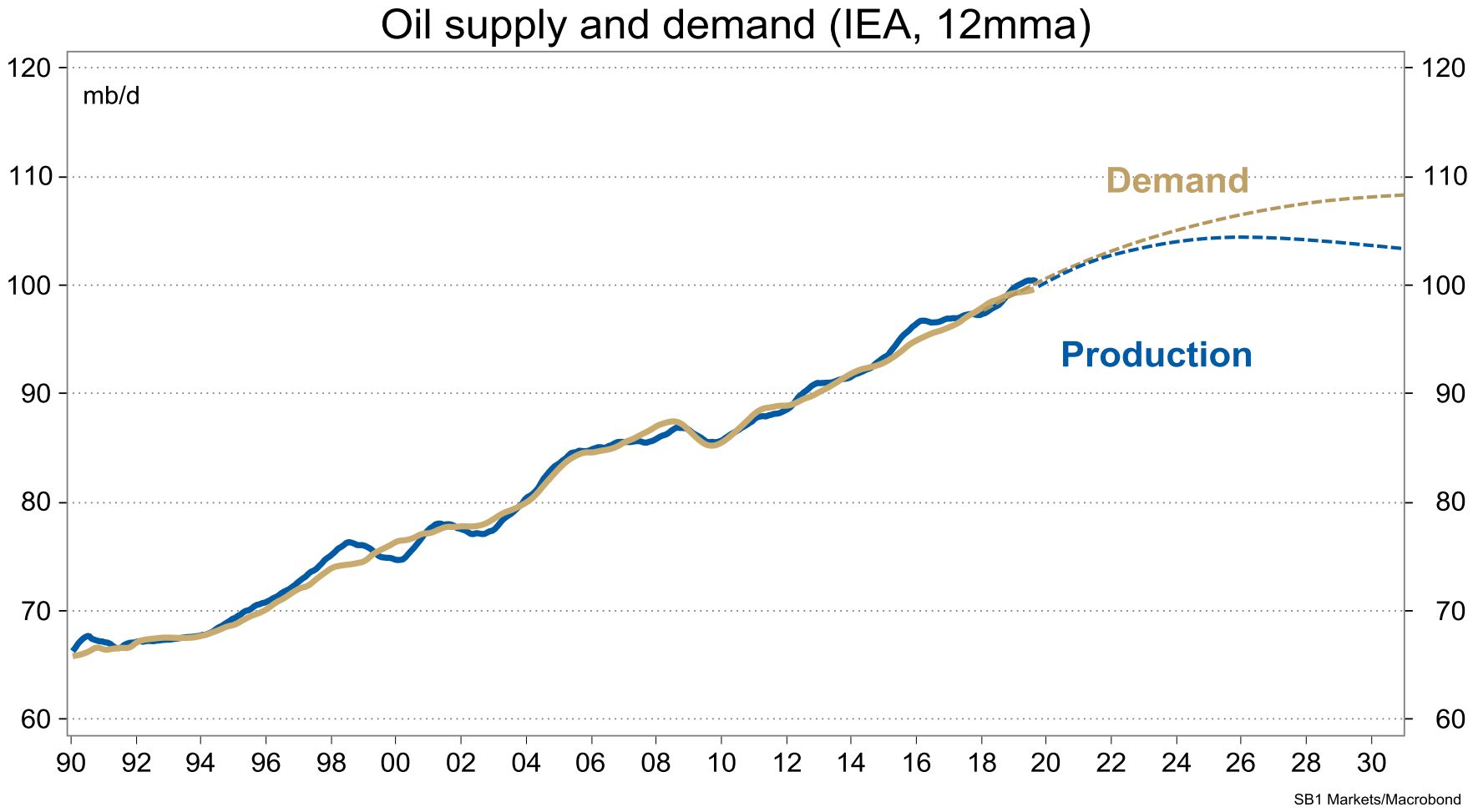
Most long term projections expect oil demand to keep growing past 2030

Decline in OECD more than offset by continuing growth in China, India, Africa and other EMS



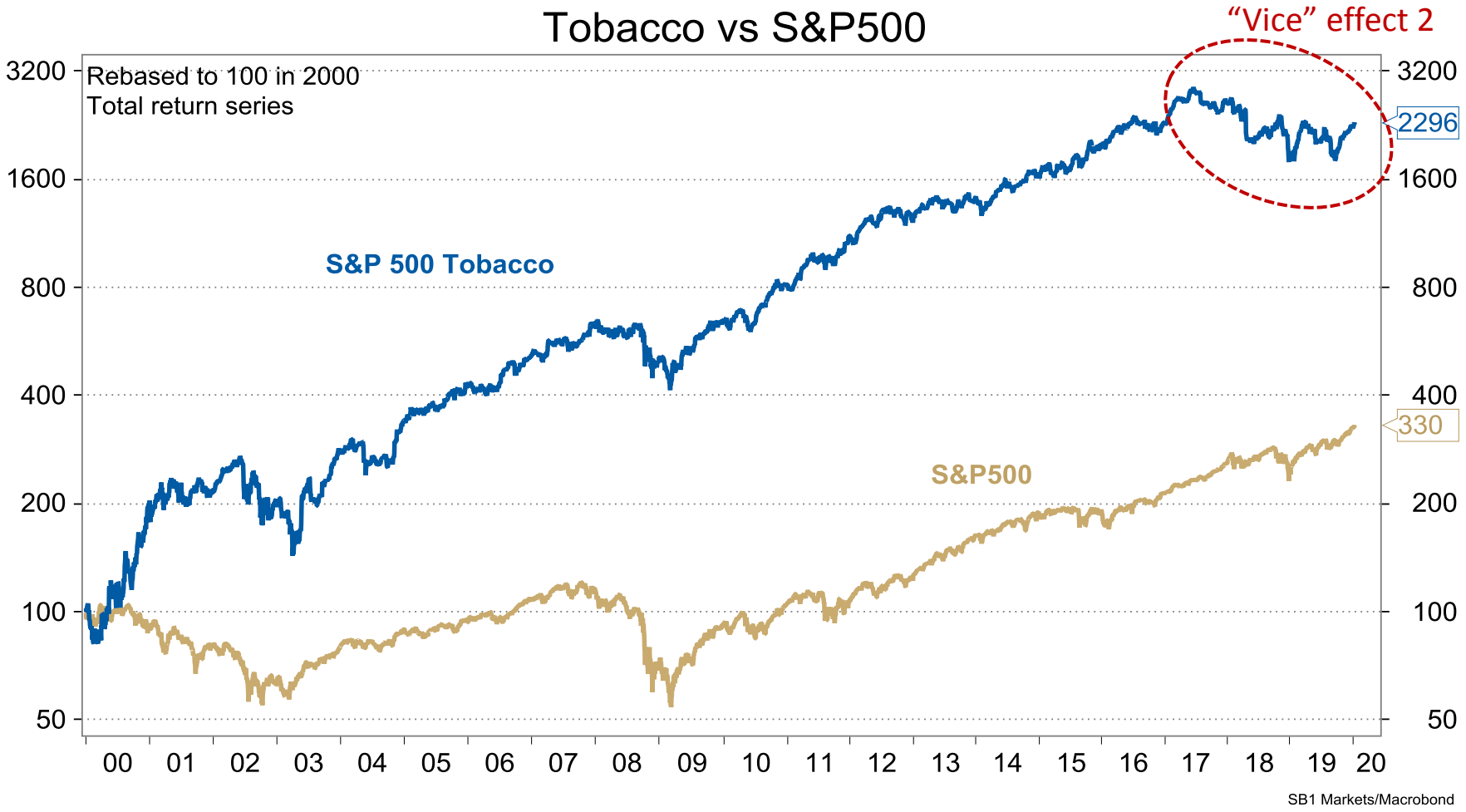
‘Win-Win’ for energy investors: Scarcity of oil gives high price

Leading to higher oil price, less oil consumption, great shareholder returns – and lower CO2 emissions!



If fossil fuels are the new tobacco…

There will be a great investment opportunity. Now, or soon. Tobacco 22x vs S&P 3.2x!



*Morningstar Consumer Defensive index

Property: Large tenants will not move to buildings with high emissions

- Companies have for a few years focused somewhat on office emissions due to corporate image
- As a new development, owners are now pushing for Scope 3 reporting – corporate emissions including indirect emissions from rented offices
- Companies will increasingly commit themselves to declining scope 3 emissions
- Commercial property is responsible for 40% of global GHG emissions
- In the near future, moving to lower-emission buildings will no longer be ‘nice to do’ but ‘need to do’

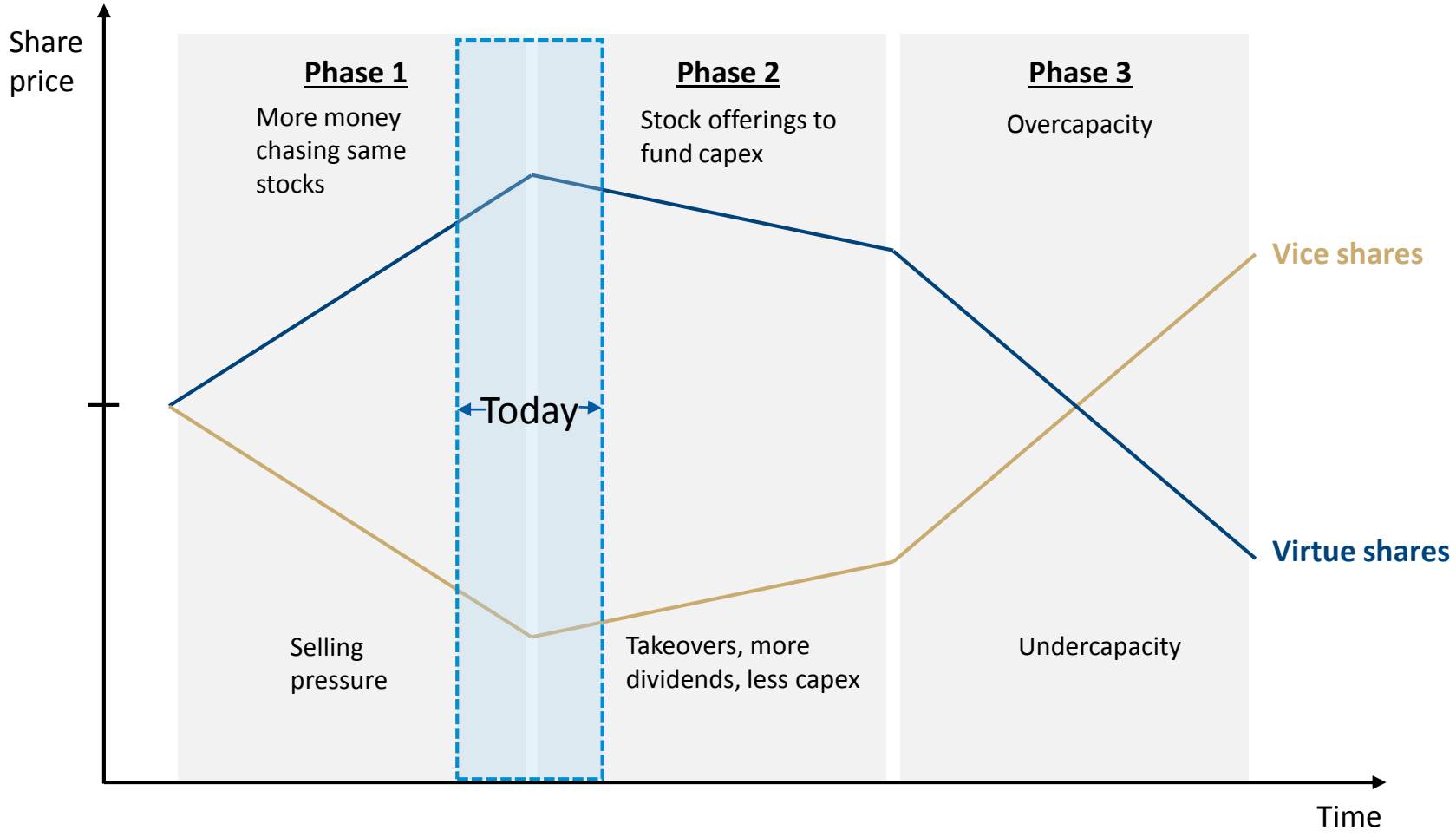
- Emissions will clearly affect rental level and vacancy rate, particularly for large one-tenant buildings. More important in 2 years than today

Source: SB1 Markets.

Expected share price development

ESG investors may end up helping save the world, but not their wallets

ESG Subsectors with low entry barriers will see low investment returns. If high barriers, high growth and sustained margins



Source: SB1 Markets

The Nordics are leading the way in repricing Virtue and Vice shares. But others are following, and should become more similar to the Nordics

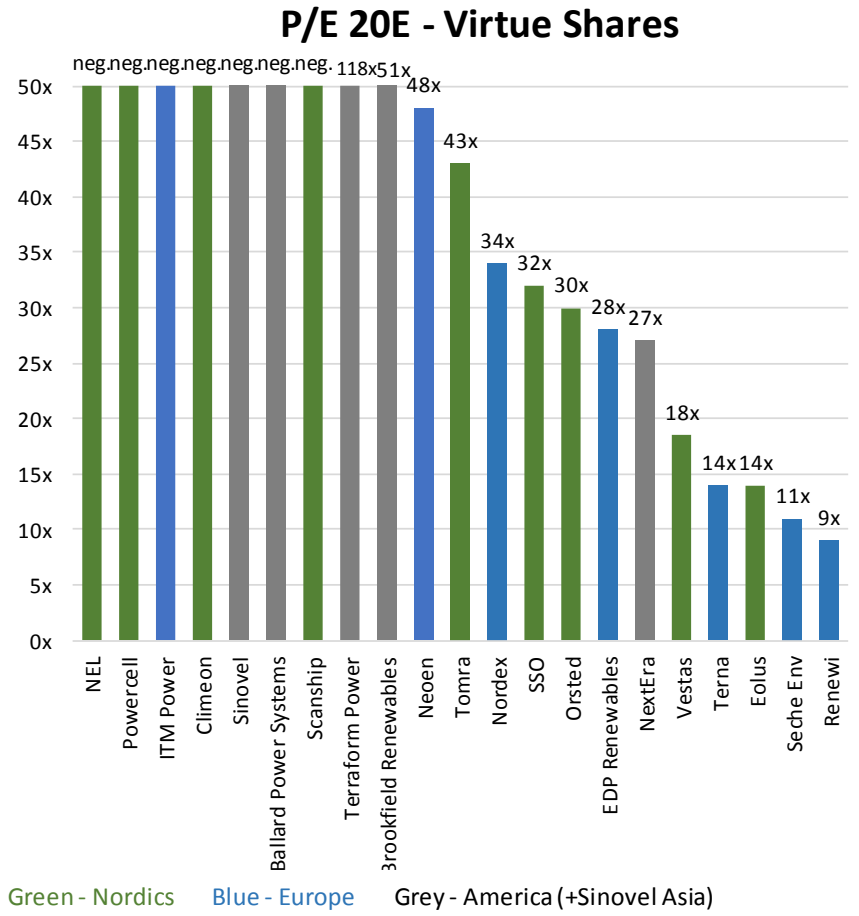
Share price performance 2018-2019

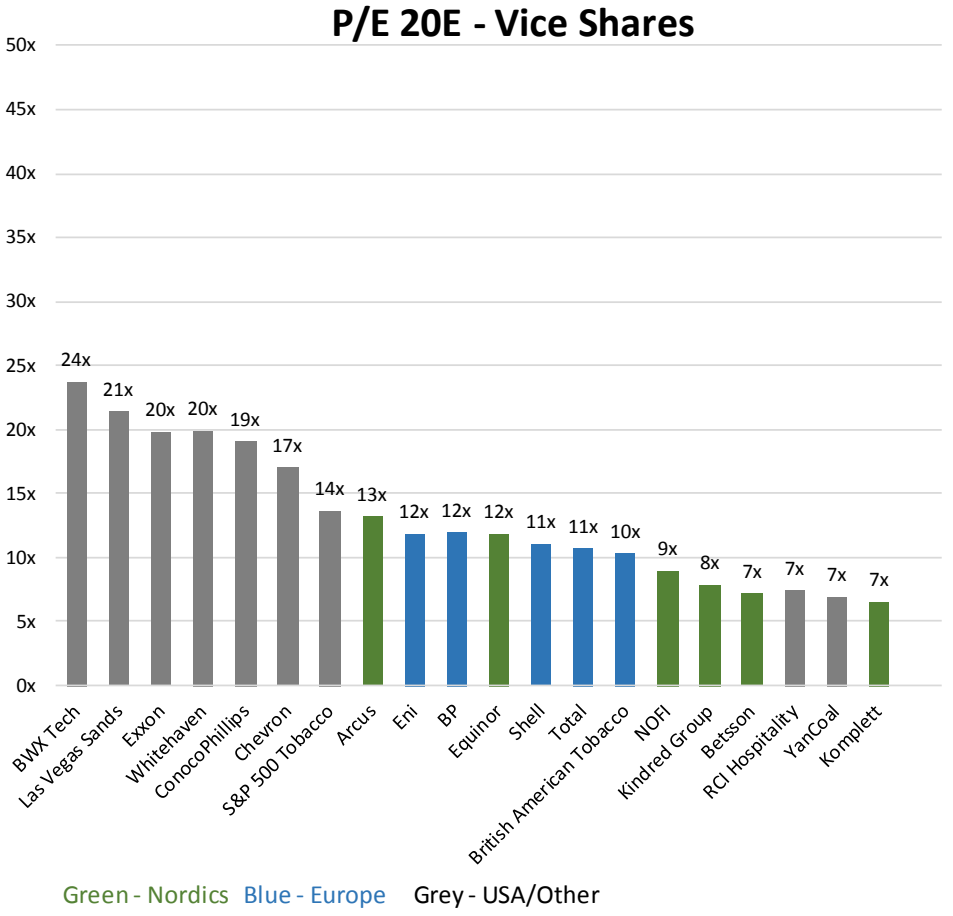
Region	Virtue	Vice
Nordics		
Europe		
USA		

- Virtue share revaluation has been most prominent in the Nordics.
- Logically we should see Nordic Virtue companies acquire peers in the U.S.
- Vice revaluation has been more parallel, but more likely that U.S. Vice companies will buy European peers than Vice versa

Largest valuation difference in the Nordics

Nordics in green are at top among the Virtue shares, bottom among the Vice shares





Source: SB1 Markets.

Some investment ideas – Vice portfolio

- **VICE**
  - » **Buy shares have been sold down on ESG criteria**, have low P/E, are a small part of the world index and have moderate expected changes in product demand
    - ARCUS, NOFI, BETSSON, BWX Technologies, British American Tobacco, RCI Hospitality
  - » **Await fossil fuel companies**, since portfolio exclusions means almost all unrestricted investors must have large overweight. We expect a great decade for Fossil shares, but maybe not 2020

- **VIRTUE:**
  - » Pick sector leaders, companies with business models that are hard to replicate (Benefit from higher demand, margins not destroyed by keen competition (Vestas, NEL?)
  - » **Avoid 'me too' investments** - competitive auctions and winner's curse will lead to poor profitability (Ørsted?)
  - » Pick companies that look decent on P/E (Bonheur, Eolus?)

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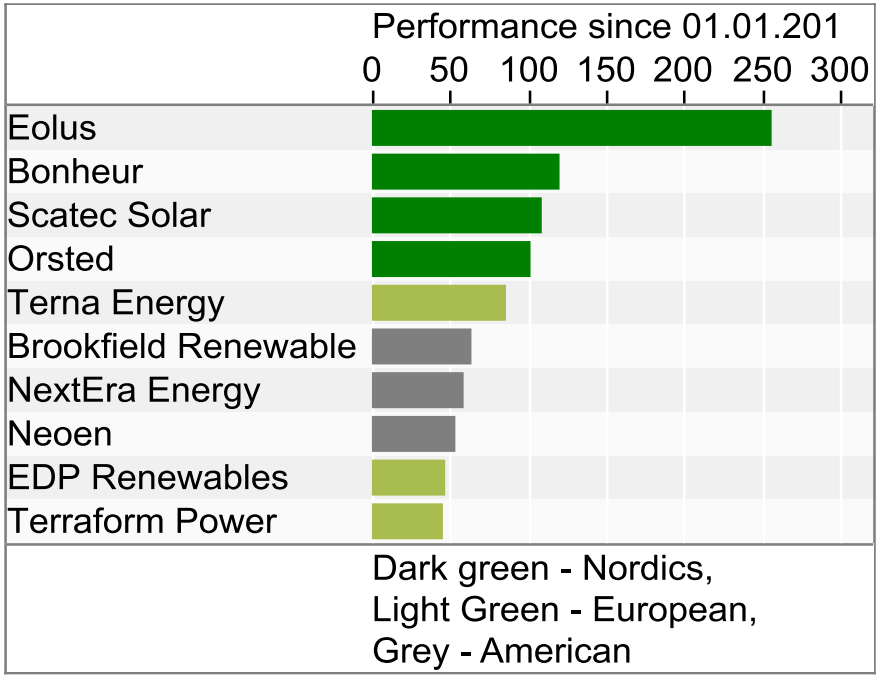
APPENDIX

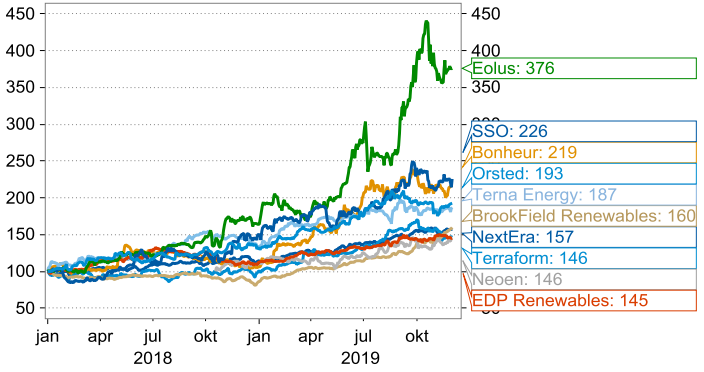
Hydro / Wind power producers: Large location based performance difference

All Nordics have performed great. Good to moderate in Europe and the U.S.



SB1 Markets/Macrobond

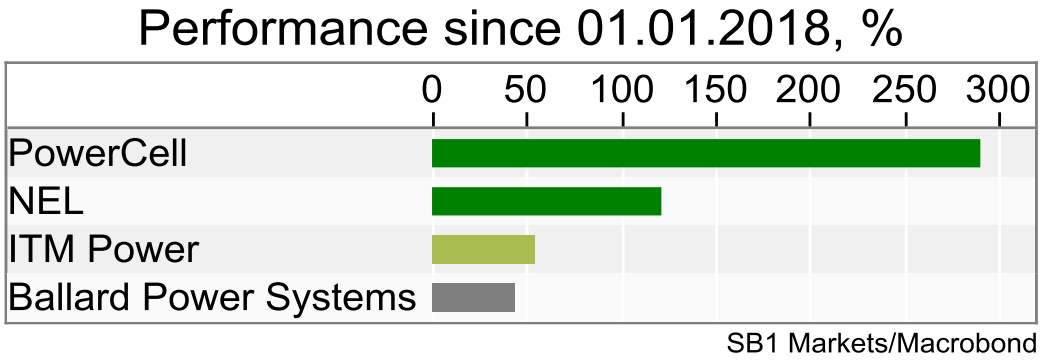
Company	Country	Mkt. Cap (USDbn)	P/E 19	P/E 20
NextEra	USA	114.3	28x	26x
Terraform Power	USA	3.5	neg.	60x
Brookfield Renewables	Canada	14.4	62x	48x
Terna Energy	Greece	0.9	17x	14x
Neoen	France	2.4	62x	39x
EDP Renewable	Portugal	9.5	25x	26x
SSO	Norway	1.4	180x	27x
Orsted	Denmark	38.5	41x	28x
BON	Norway	0.9	neg.	31x
Eolus	Sweden	0.3	16x	12x

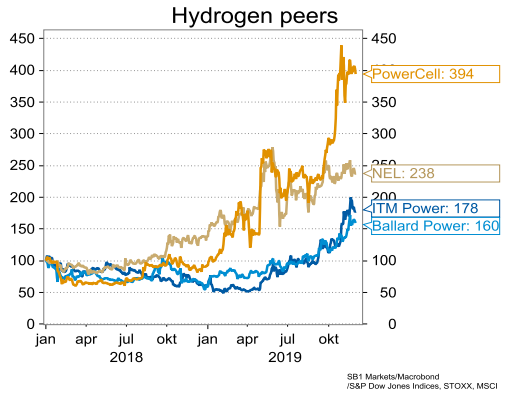


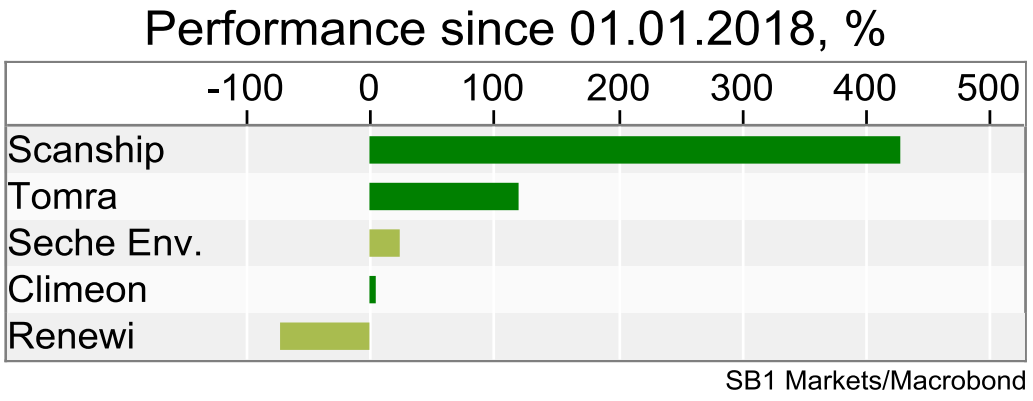
SB1 Markets/Macrobond
/S&P Dow Jones Indices, STOXX, MSCI

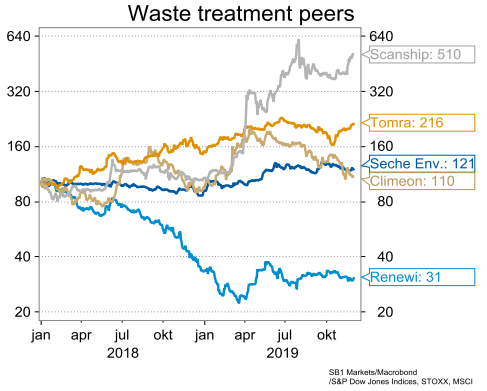
Similar trend within Hydrogen and cleaning

Again the Nordics are clear winners while peers have moderate returns on average





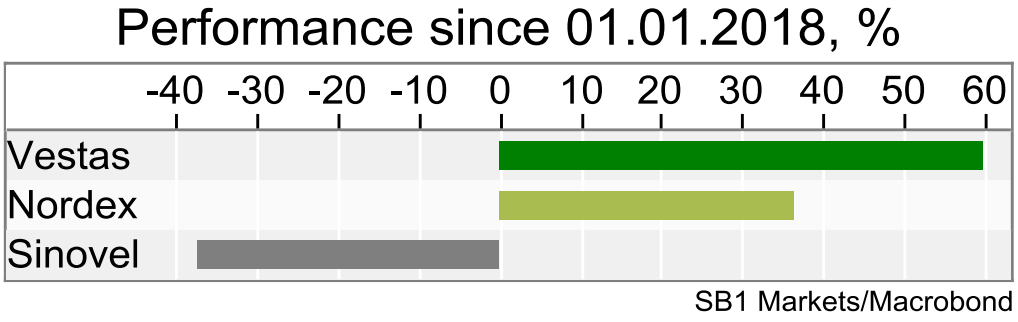


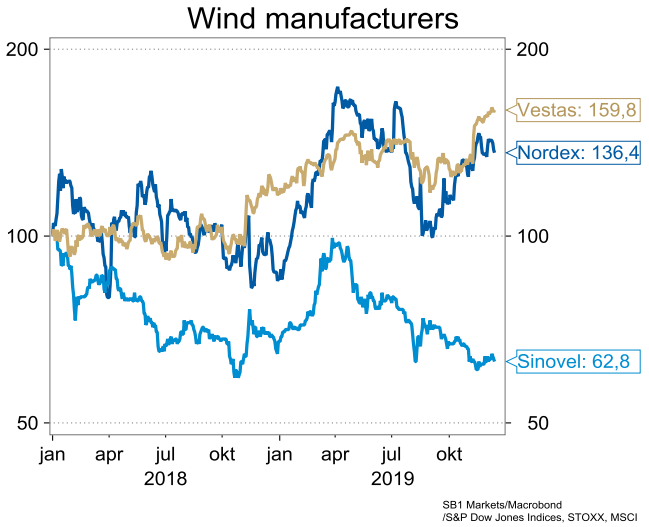


Source: SB1 Markets.

As well as for Wind power equipment manufacturers

Less stellar returns, but again the Nordic share has outperformed. Sinovel (China) weak



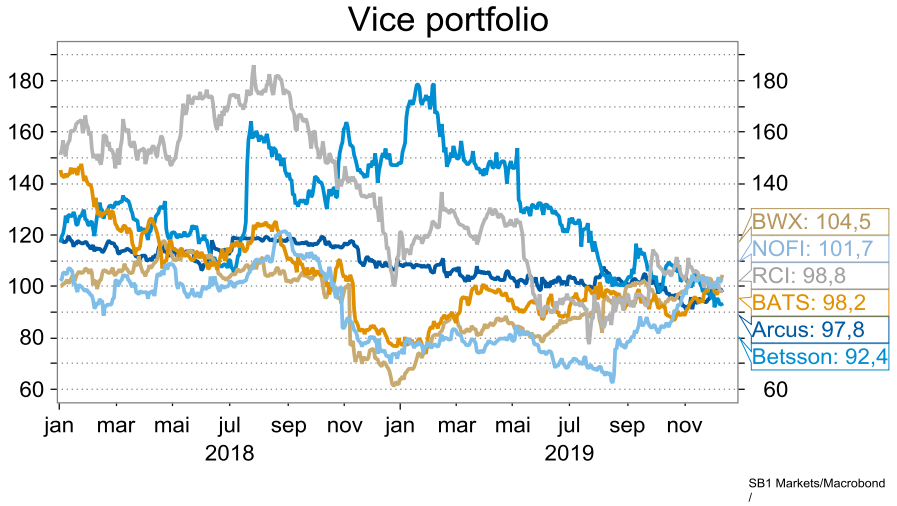


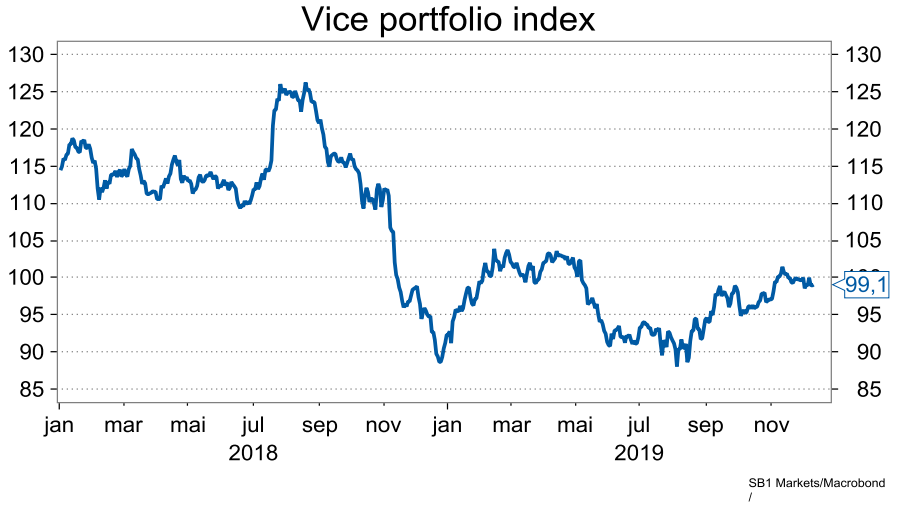
Source: SB1 Markets.

If you are after Financial gains, buy this portfolio

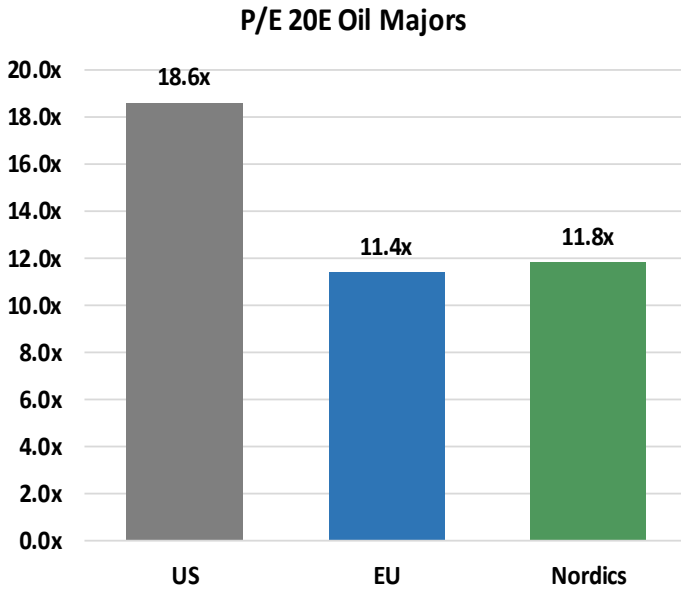
You may of course choose not to own some of these for moral reasons,

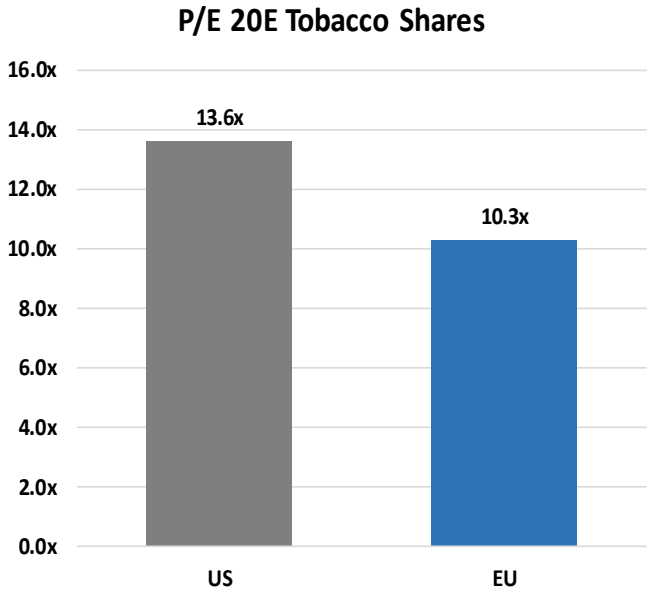
Vice Portfolio	Ticker	Price
BWX Technologies	BWXT	58.98
Betsson	BETS B	46.3
Arcus	ARCUS	36.2
RCI Hospitality	RICK	18.33
British American Tobacco	BATS	3050
Norwegian Finans Holding	NOFI	90.05

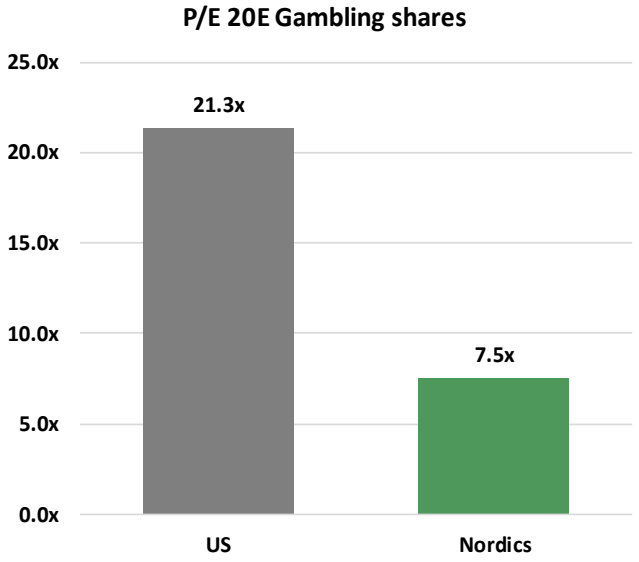




Source: SB1 Markets







Source: SB1 Markets.

Some investment ideas for corporates on how to maneuver in the Virtue space

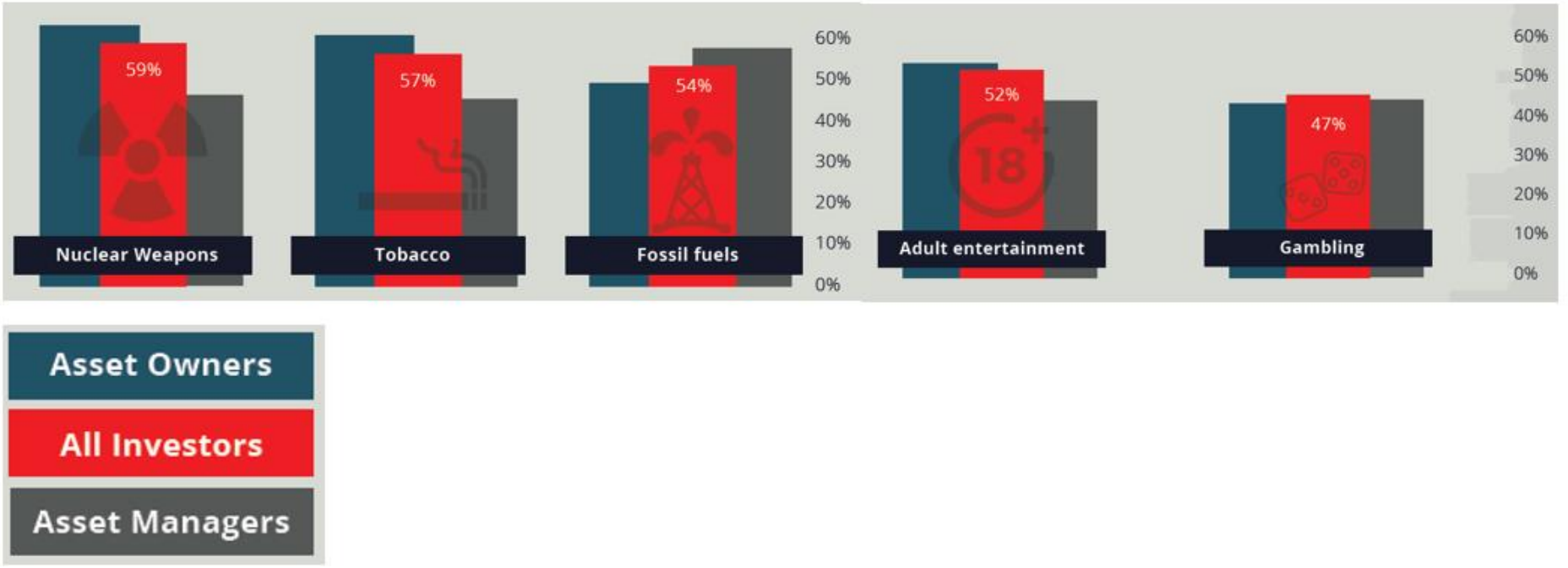
Investment strategy suggestions for portfolio managers, corporate and PE

- Take advantage of high demand growth in Virtue sectors – buy companies with business models that are hard to replicate
- Avoid ‘me too’ investments - competitive auctions and winner’s curse will lead to poor profitability

- For corporates: Investments that have marginal profitability may prove profitable longer term due to effect on corporate profile
- For corporates and PE: Carve out and spin off part og E - related activities, if any. Take advantage of high willingness to invest in even early phase E-related activities, at high prices.
- For corporates: Report on key ESG platforms and get rating (MSCI, Sustainalytics)?

More speculatively, 50% of investors say they expect to have exited Vice sectors by 2030

Share of investors expecting to have ceased investments in potentially harmful sectors, by 2030



The future of ESG investing August 2018 (281 respondents)

Extreme interest in Virtue companies, no interest in Vice shares

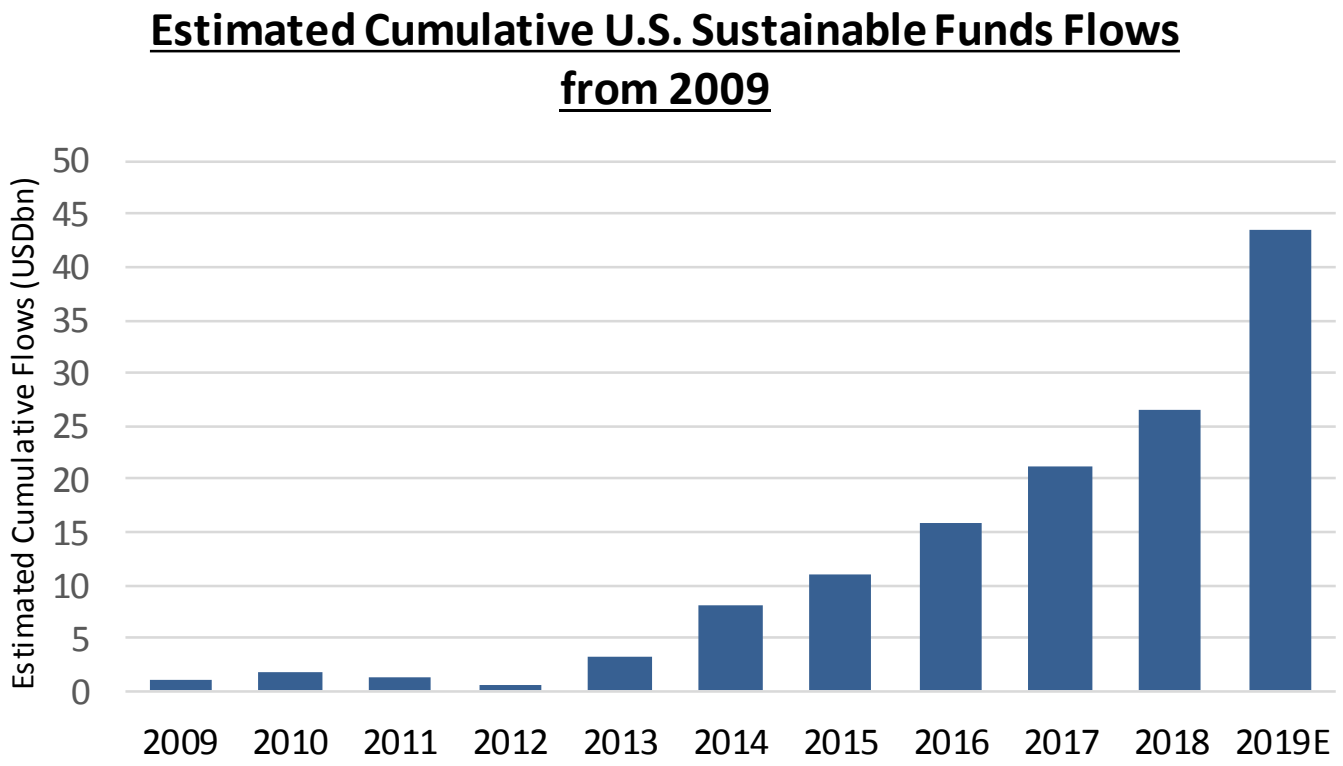
...

Virtue Ltd Company Presentation

Vice Ltd Company Presentation

Money flows into ESG funds, and out of 'Vice shares'

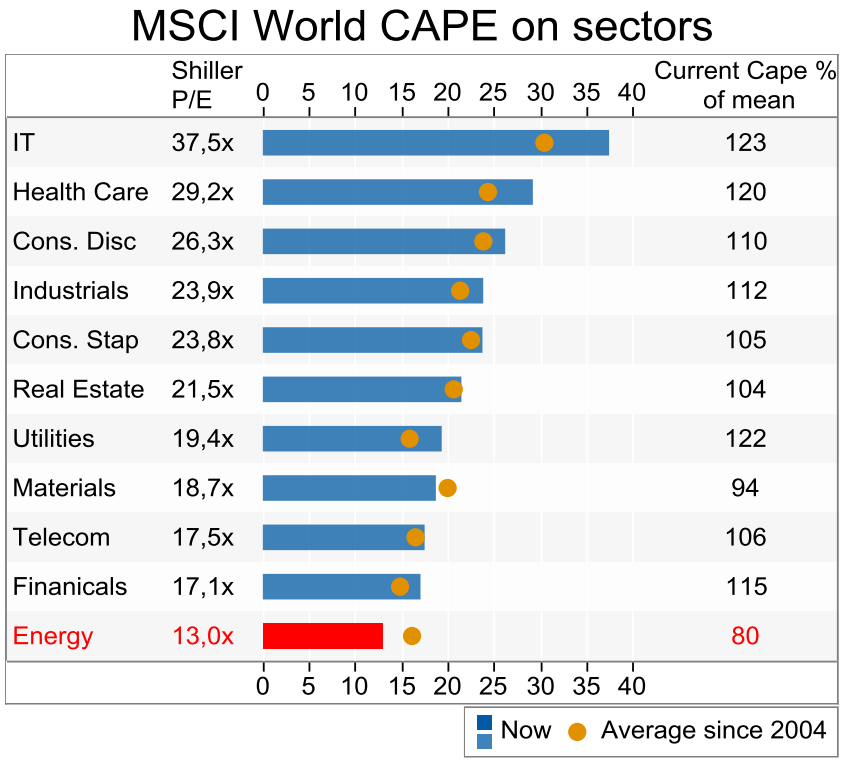
And the pace is accelerating. Fossil free funds manage $100bn globally



Source: Morningstar

Energy is by far the cheapest sector now…

Lowest vs historical average, both on CAPE forward P/E. Lowest CAPE overall



Source: MSCI, SB1 Markets, Macrobond.

“Oil is the new tobacco” – Former California Governor Arnold Schwarzenegger

March 2019

EARTH & ENERGY

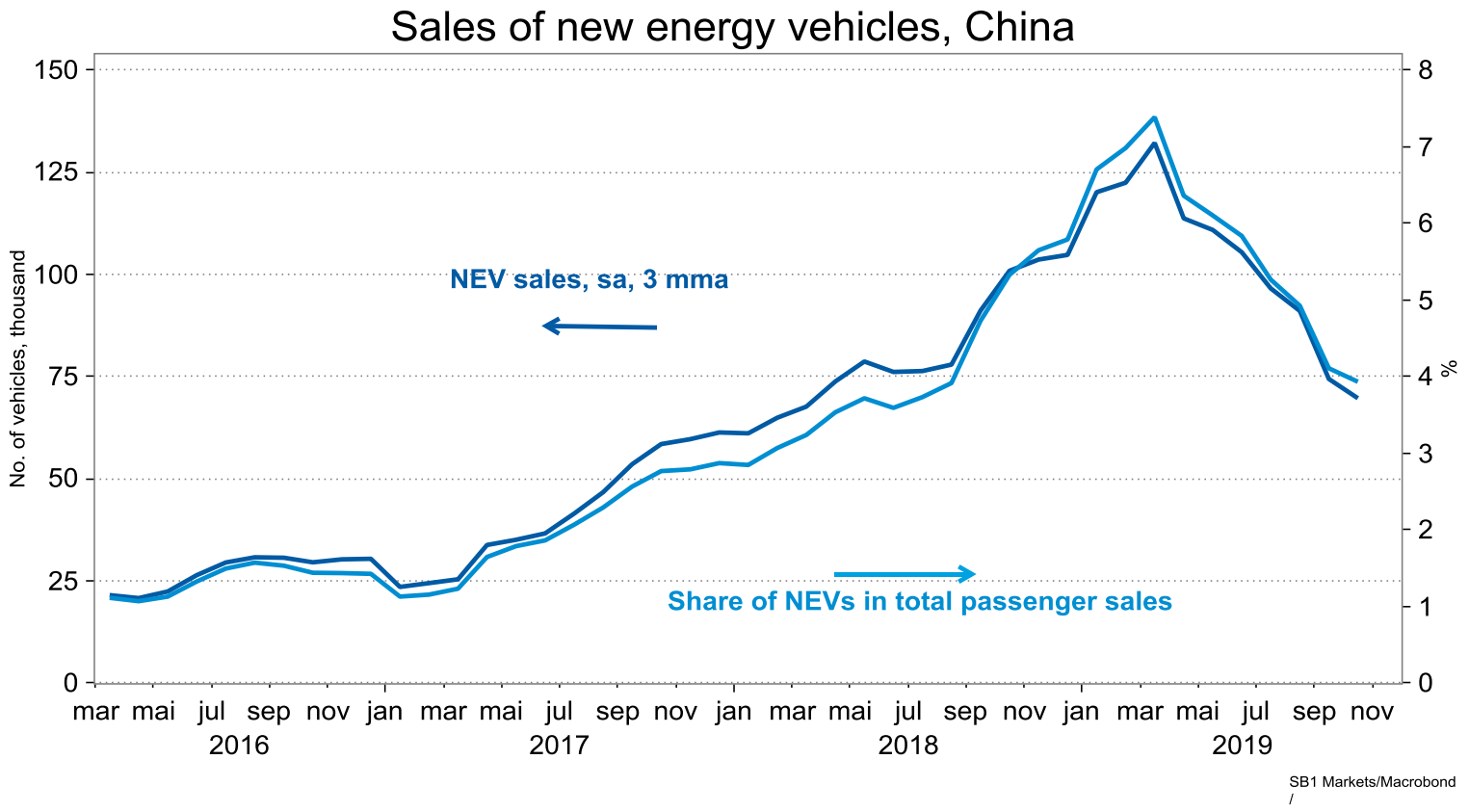
Arnold Schwarzenegger Is Suing Big Oil for Climate Change

«Schwarzenegger sees a direct parallel between what happened with the tobacco industry and what is now happening with the oil industry»

Source: Futurism, SB1 Markets

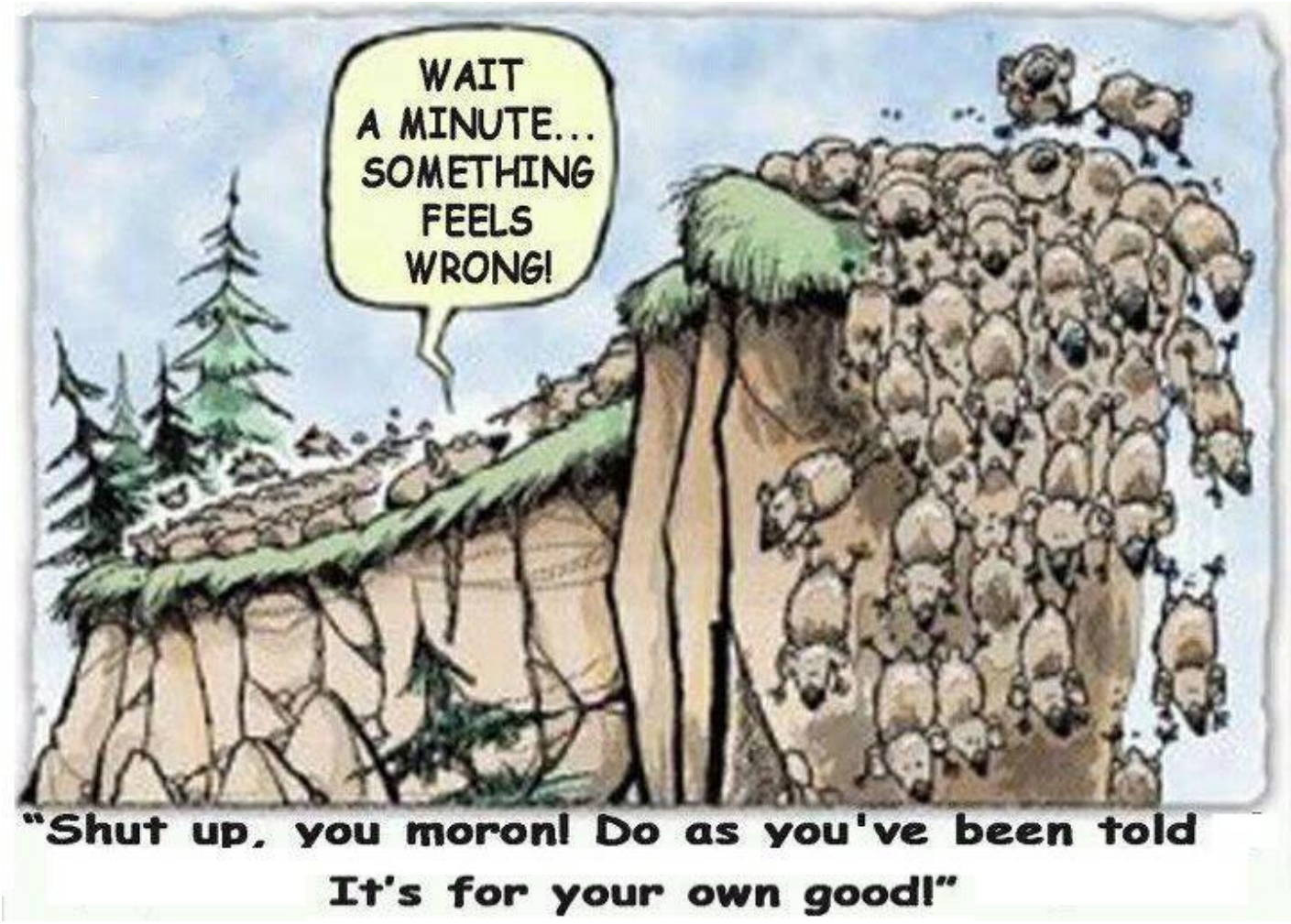
The growth in Electric Vehicle sales is not a straight line

Dependent on subsidies for many years. Sometimes those subsidies are cut back again, like in China now (World's by far largest EV market)



‘Me too’ ESG investors may be heading for the cliff

‘Win-lose’ for some ESG investors



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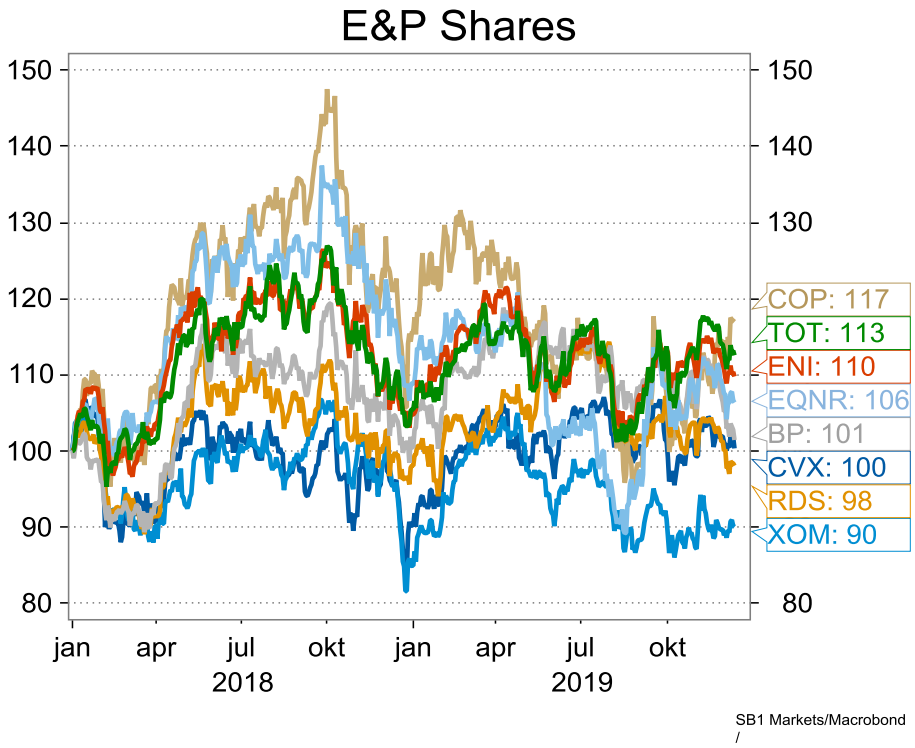
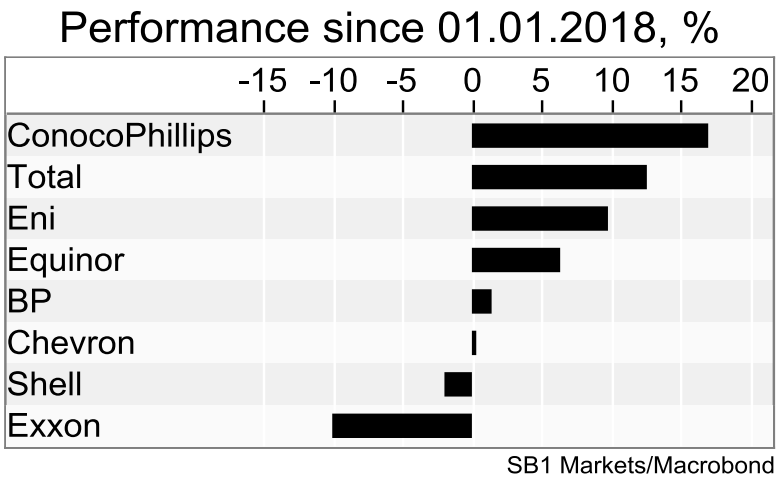
APPENDIX 2
NOT FOR PUBLICATION

Hvordan jobber fondsforvalterne med ESG?

Basert på presentasjoner fra DNB, Storebrand og KLP

Aktivitet	Eksempler	Mulig sluttresultat
Krav til rapportering	Utslipp/kg produsert. Scope 3.	Bedre informasjons- og beslutningsgrunnlag
Standardsetting	Best practise utslipp	Krav til utslipp
Aktivt eierskap	Stemmegiving, valgkomite, dialog med selskapene	Selskap endrer atferd, bytt styre om de ikke vil høre
Investorsamarbeid	Carbon 100+ (40% av global AUM). Best effekt når **lokale** og **store** eiere	Endret atferd eller rapportering
Eksklusjoner	Utelukk selskaper og bransjer som ikke imøtegår minimumskriterier.	Eksklusjonslister a la NBIM. No-carbon indeksfond
ESG integrering	Samarbeid dedikert ESG analytiker og fondsforvalter.	Lavere multipler for lav-ESG selskaper pga. fremtidige reguleringer
Tematiske investeringer	Invester i selskaper som jobber aktivt for en bedre verden	Storebrand Global ESG, ESG+, Global Solutions

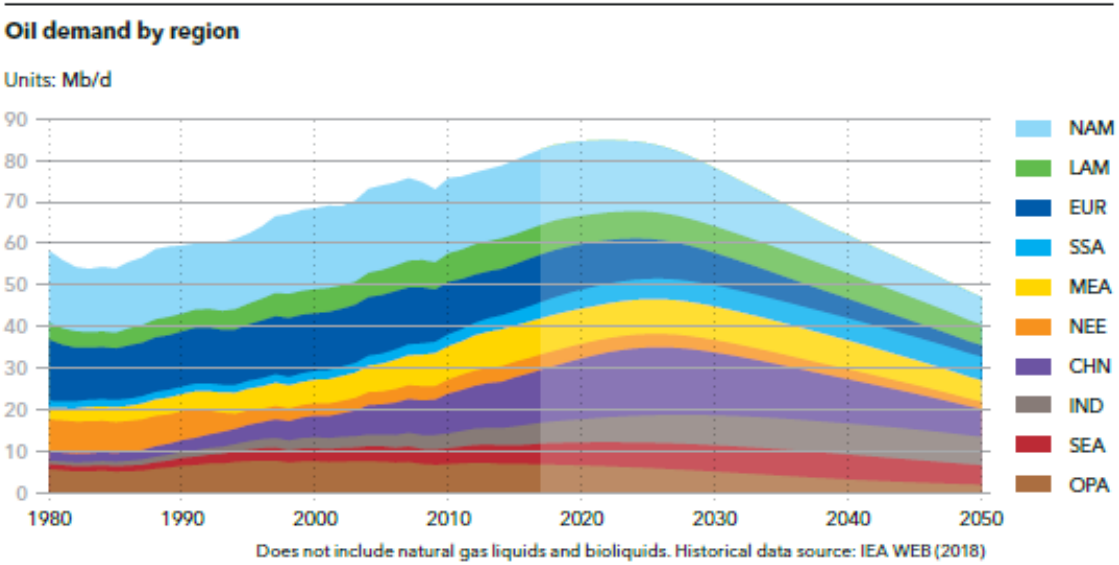


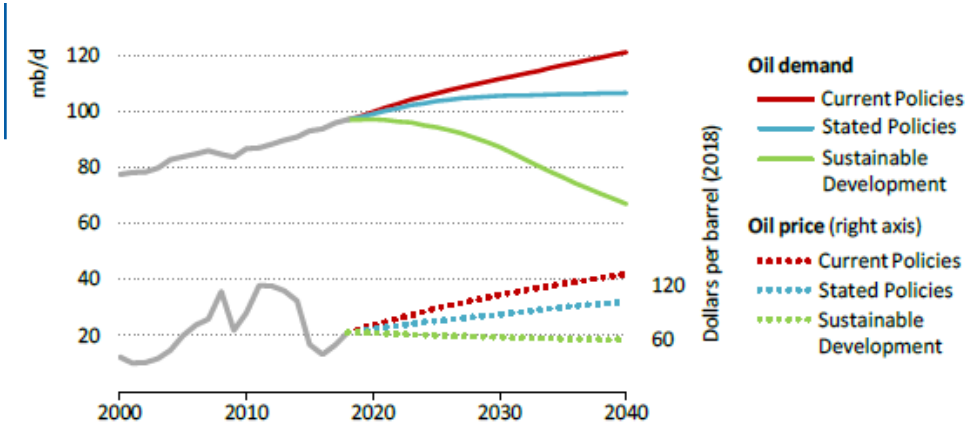


Source: SB1 Markets.

- Nov 19: For finansiell institusjoner i EU skal det bli helt stopp på alle investeringer i kull i løpet av 10 år.
- As part of the European Green Deal, the Commission will start work immediately on a carbon border tax on polluting foreign firms in an effort to shelter EU businesses striving to become environmentally friendly.
- Von der Leyen has said the new tax will comply with World Trade Organization rules and start on a “number of selected industries.” In October, steel giant ArcelorMittal Europe came out in favor of a carbon border tax, calling it “effective and fair.”
- She will also reform the EU’s emissions trading system, which taxes polluting industries, and will work to include the maritime and aviation sectors as well as the traffic and construction sectors.

Oil demand, long term estimates





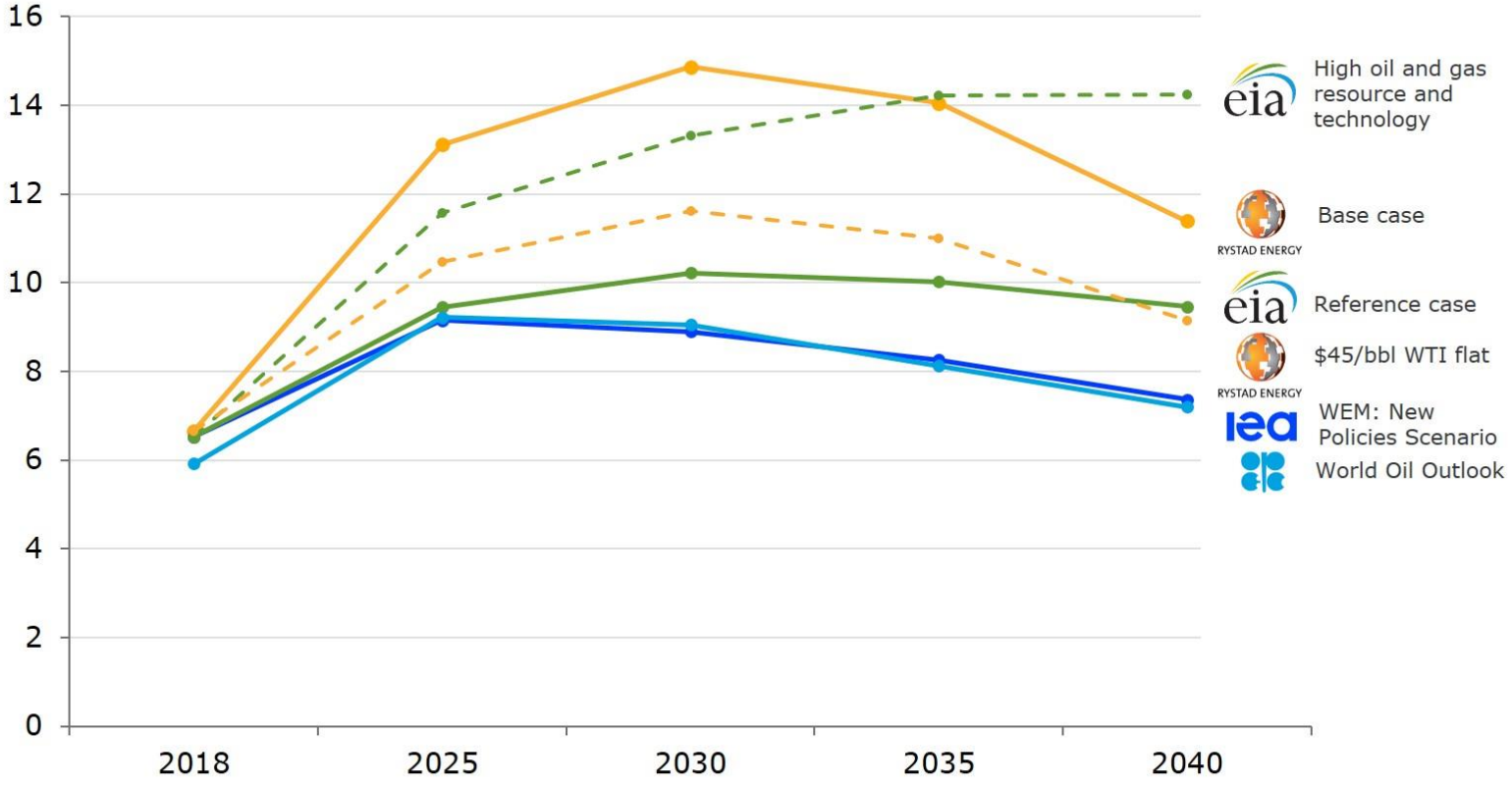
IEA, DNV, Shale graf

Shale oil cannot supply all the oil we need – no growth from 2025

And all relevant research points to slower growth starting today

Figure 1: Production forecast for US tight crude oil and condensate*

Million barrels per day (bpd)



*Projections of IEA and OPEC exclude condensate
Source: Rystad Energy research and analysis

Mer om Shale

Investeringsnivå innenfor fornybar energi

- «Renewable Energy investment in 2018 hit USD 288.9 bn»
  - 11% down vs. 2017 (Driven in part by falling solar costs)
  - Investment in Europe rose 39% to USD 61.2 bn
  - Does not include hydropower above 50MW (USD 16bn)
  - Solar: USD 139.7bn
  - Wind: USD 134.1bn
  - Biomass and waste-to-energy: USD 8.7bn (54% incr. YoY)

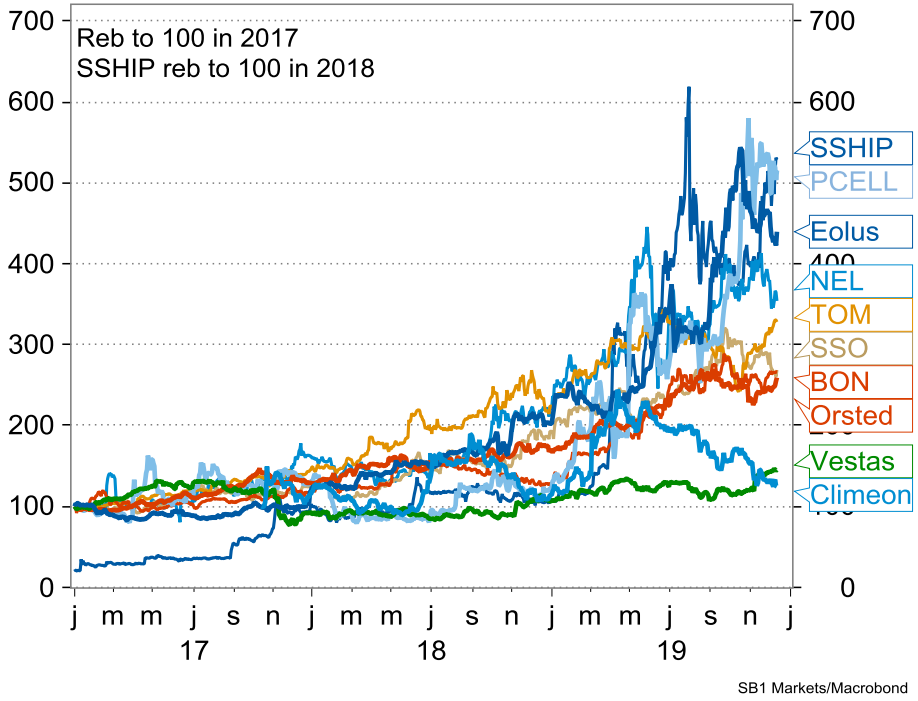
- China led investments worldwide at USD 91.2bn (7th consecutive year) 37% down from 2017
- Both Europe and US up YoY

Source: https://www.unenvironment.org/news-and-stories/press-release/renewable-energy-investment-2018-hit-usd-2889-billion-far-exceeding

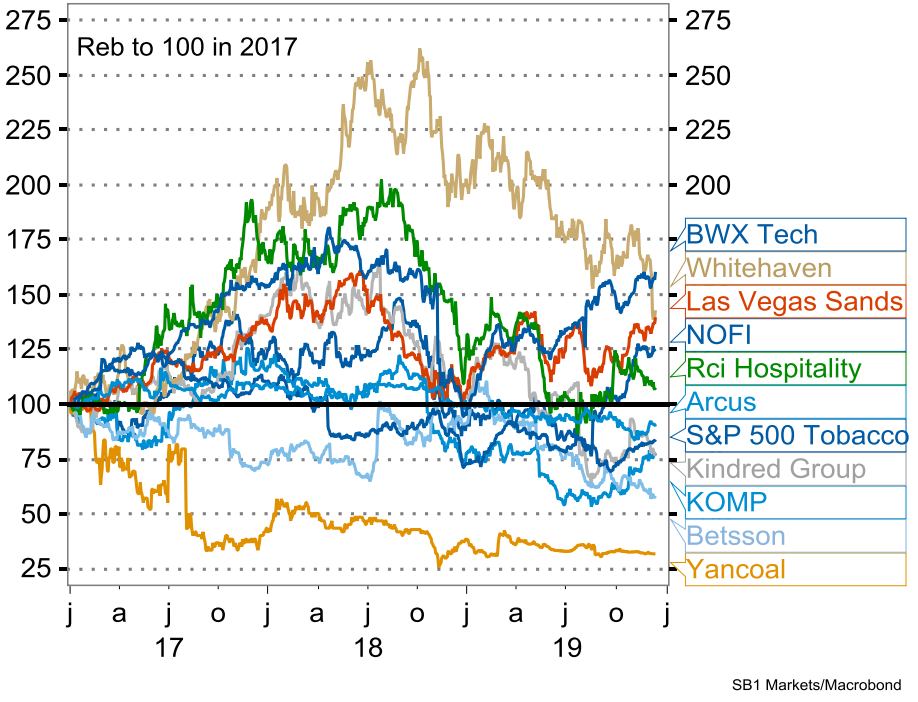
- Sammenlignet med oljesektoren:
  - IEA: USD 477bn upstream oil & gas supply investments 2018
  - IEA: USD 249bn downstream, midstream and refining (oil & gas supply investments)
  - Renewables IEA:
    - Renewable power: USD 304bn
    - Networks: USD 293bn

Source: https://www.iea.org/wei2019/

Virtue index constituents



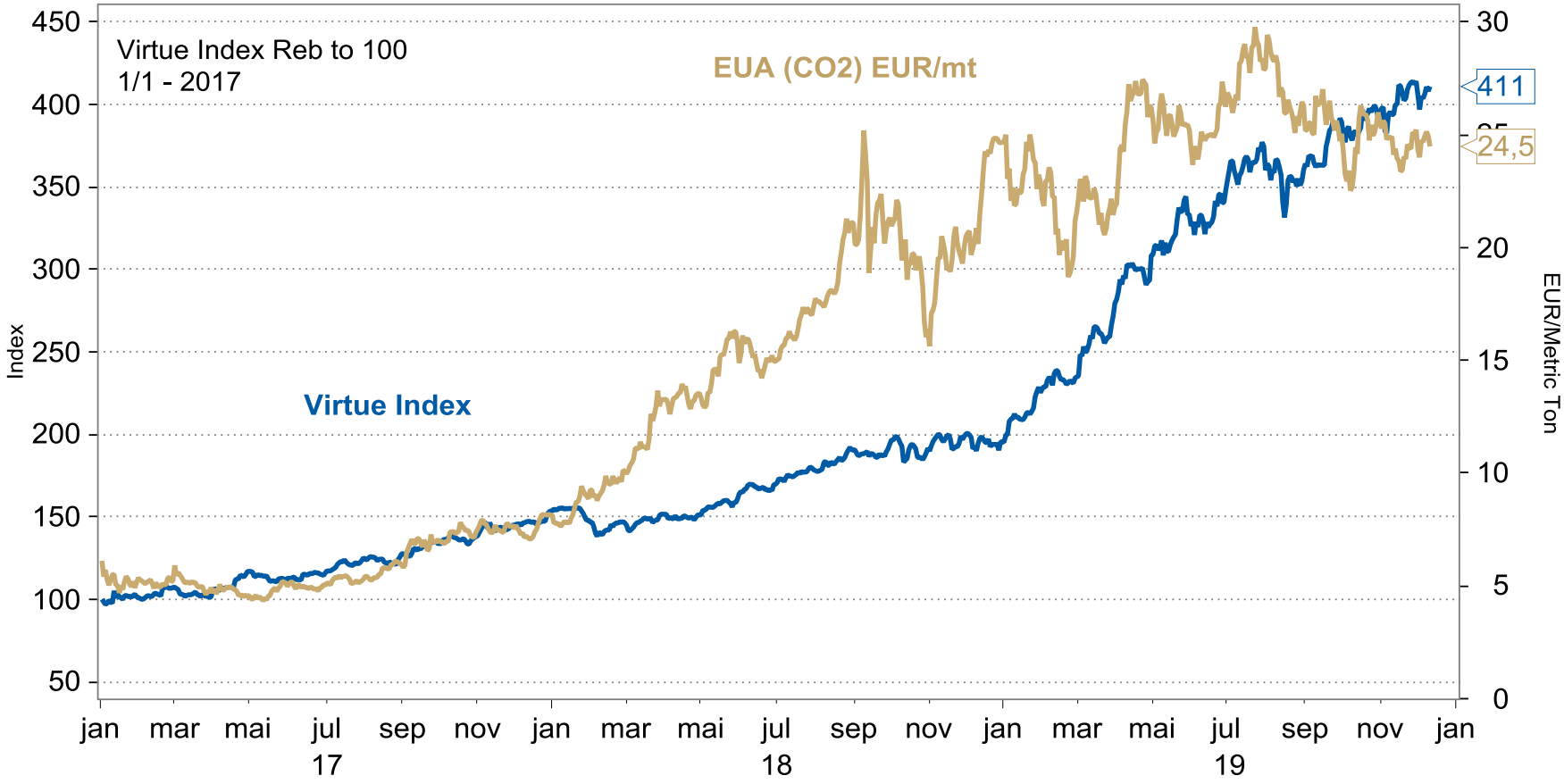
Vice index constituents



- **Virtue**: Based on OSEBX companies with a strong ESG profile
  SSO (solar), NEL (Hydrogen), TOM (recycling), SSHIP (waste treatment), PCELL (Hydrogen), Orsted (Wind), Eolus (Wind), Vestas (Wind)
  Vice:
  Based on largest pure play companies, in or close to Norway: Niche banks: NOFI and KOMP – Tobacco: S&P 500 Tobacco
  Betting: Kindred, Betsson and Las Vegas Sands - Coal: Yancoal and Whitehaven - Porn: RCI Hospitality – Alcohol: Arcus – Nuclear weapons: BWX Technologies

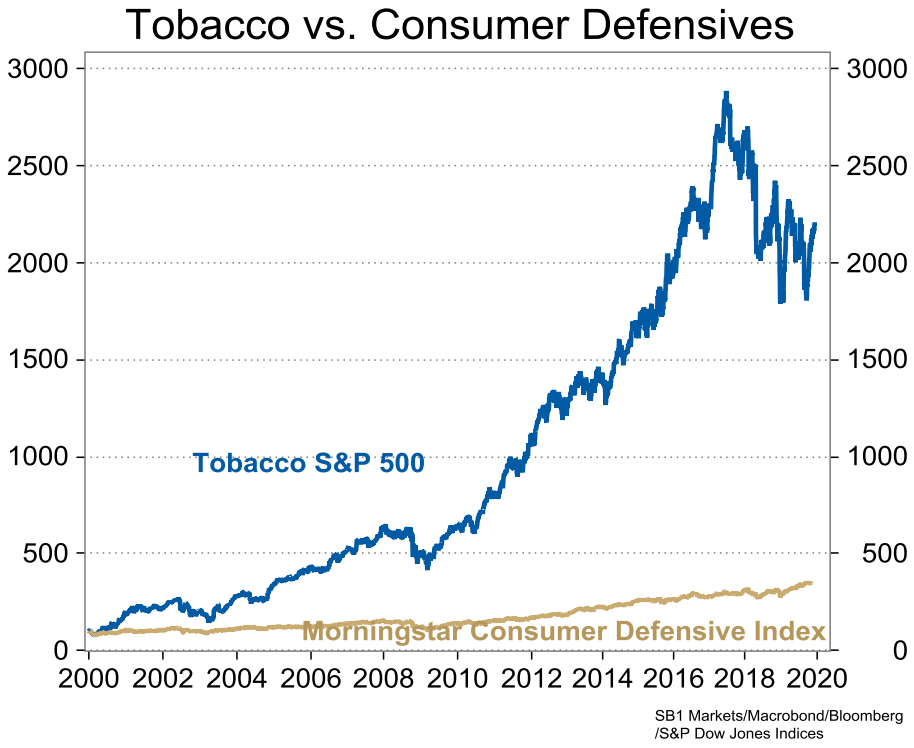
Source: SB1 Markets.

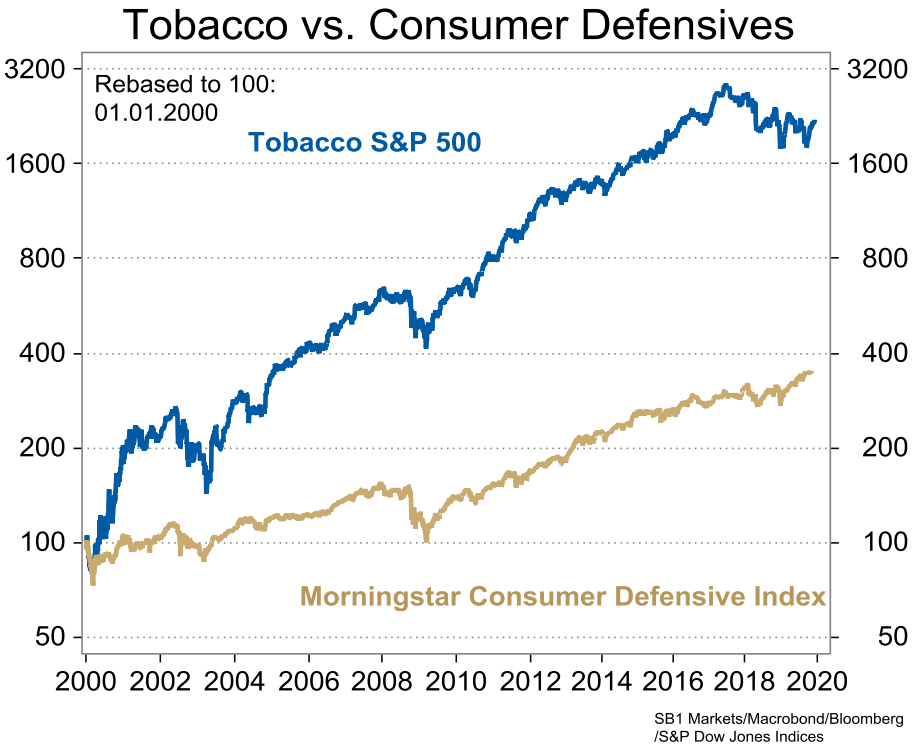
Virtue index vs EUA (CO2) cost, EUR/mt



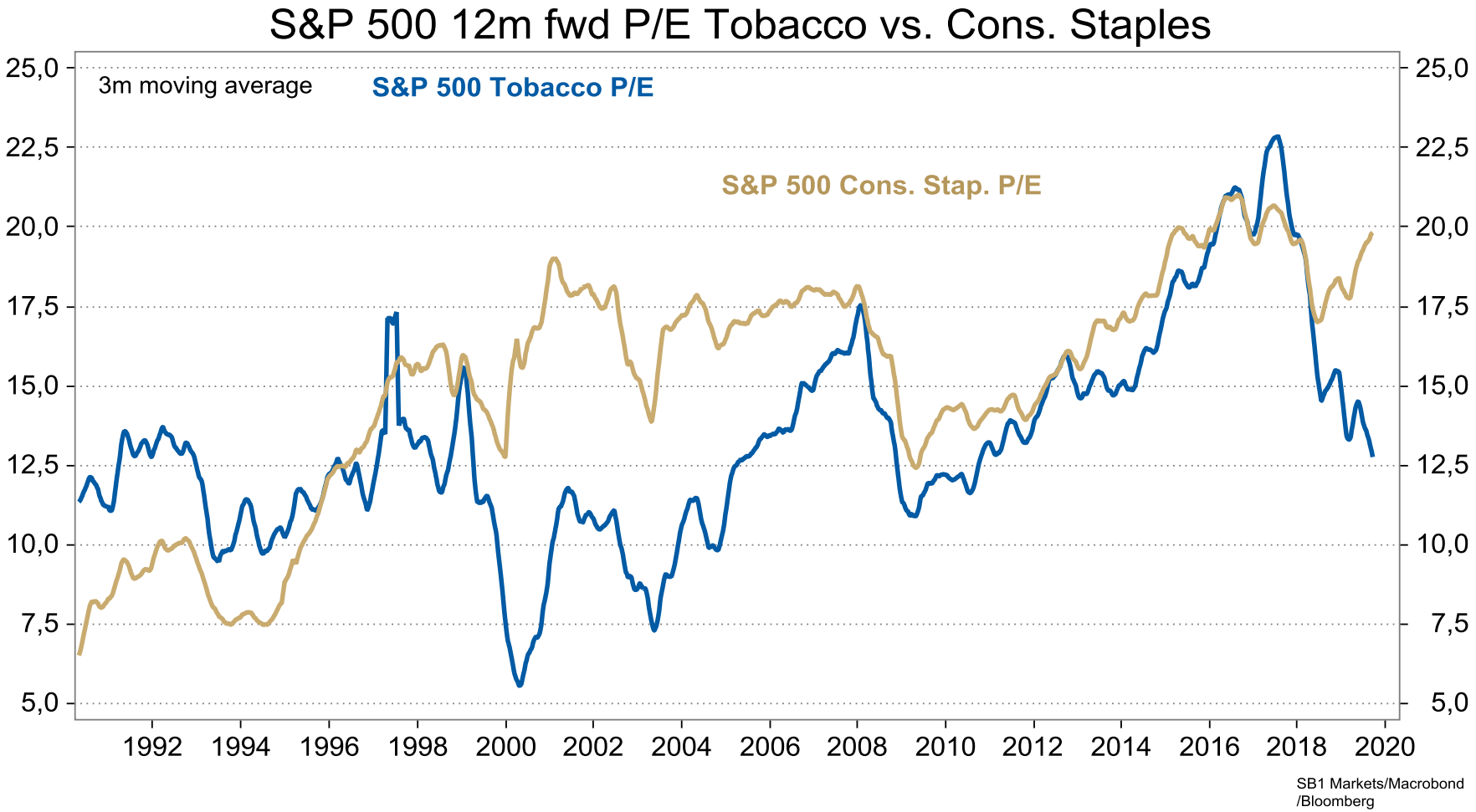
Source: ICE, S&P, SB1 Markets, Macrobond

Rebasert til 29000





Source: Bloomberg, SB1 Markets.


S&P 500 12m fwd P/E Tobacco vs. Cons. Staples
3m moving average
S&P 500 Tobacco P/E
S&P 500 Cons. Stap. P/E
25,0
22,5
20,0
17,5
15,0
12,5
10,0
7,5
5,0
1992
1994
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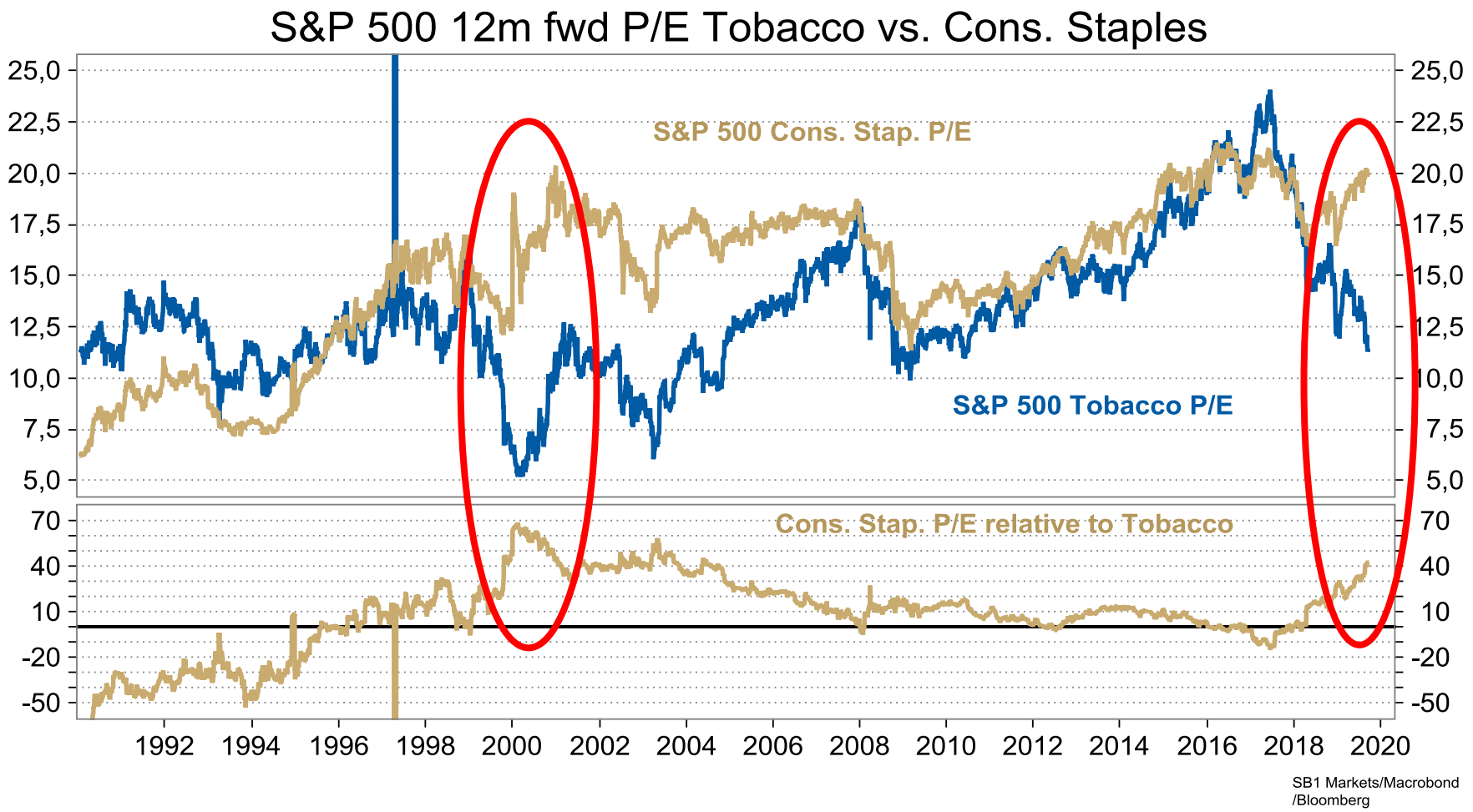
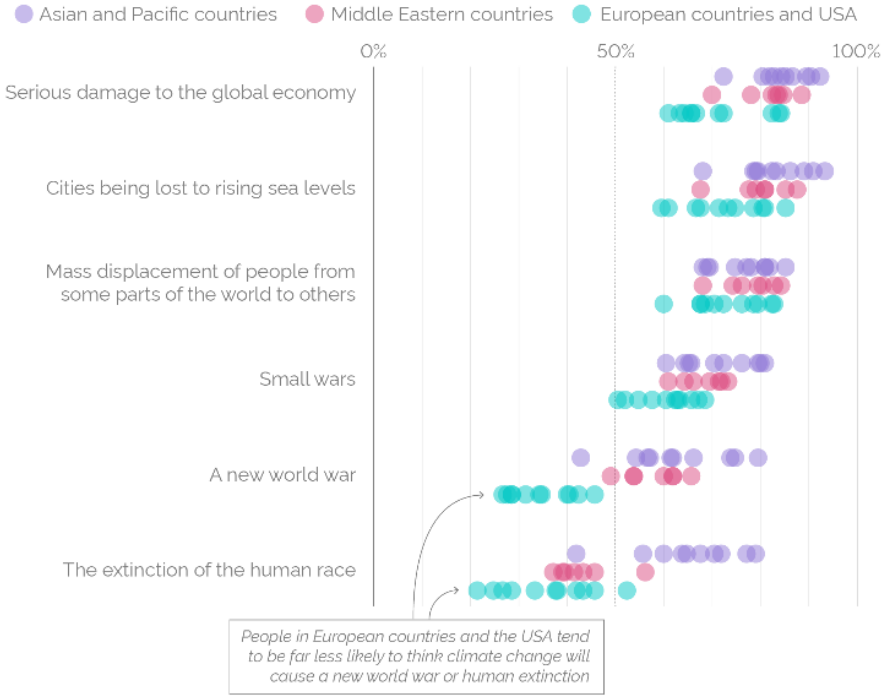
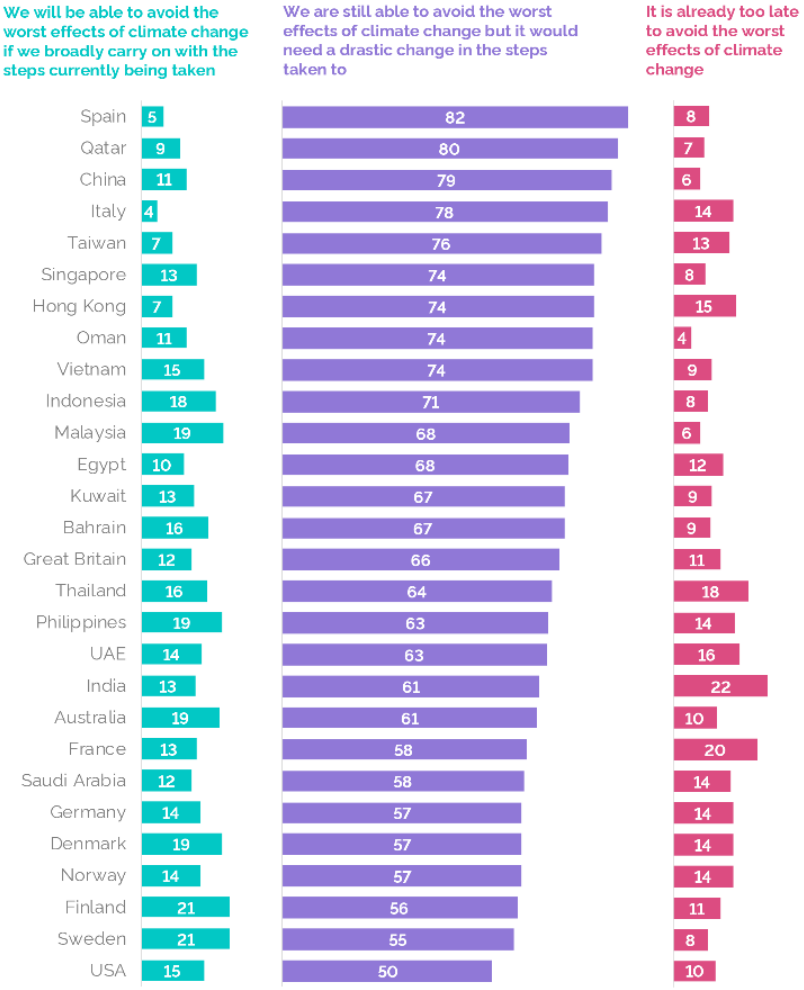
2020
SB1 Markets/Macrobond
/Bloomberg



Source: Macrobond, OSE, SB1 Markets.

The trend is not particularly strong in Norway





Source: Macrobond, OSE, SB1 Markets.