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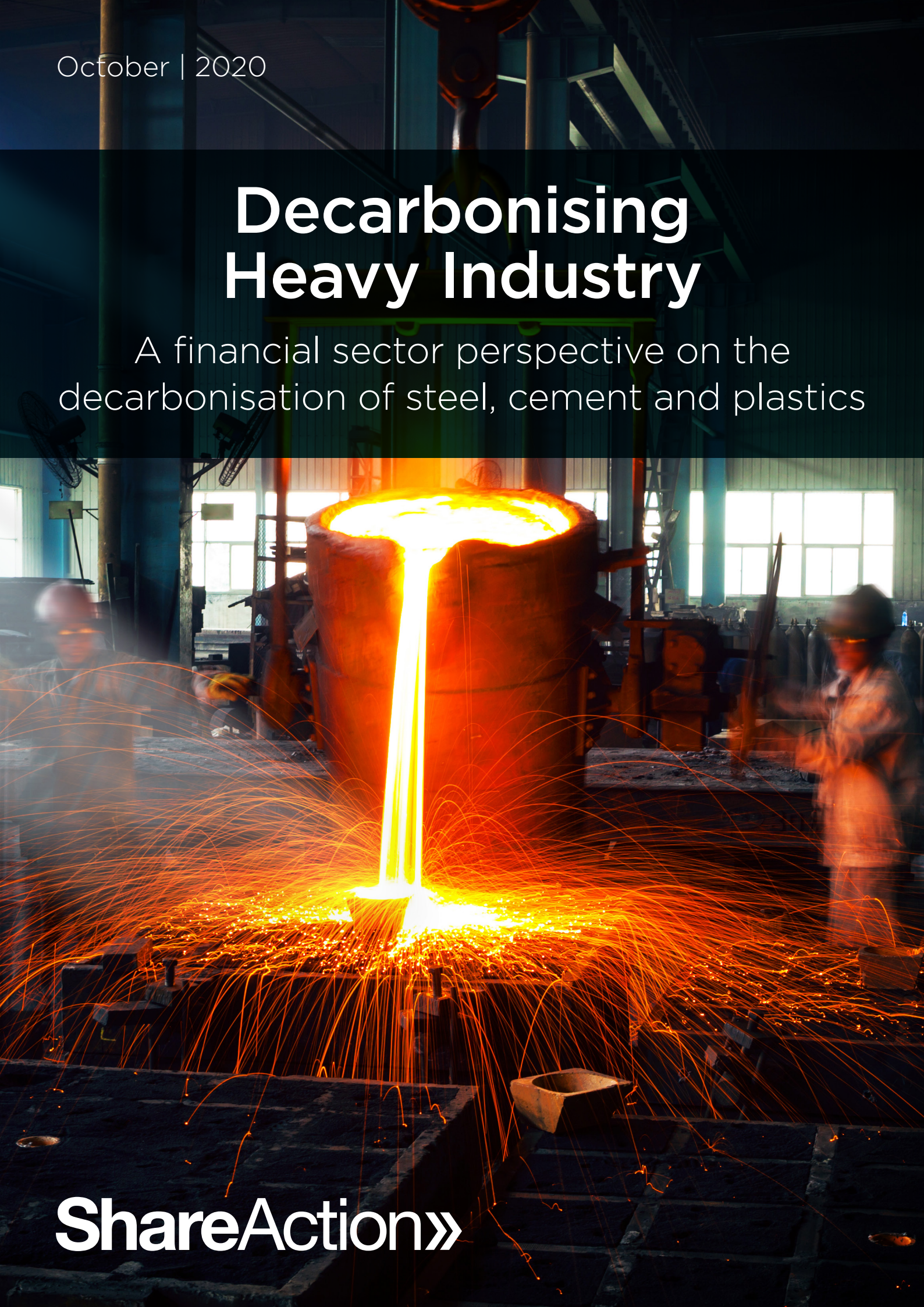
Decarbonising Heavy Industry

A financial sector perspective on the decarbonisation of steel, cement and plastics



ShareAction»

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We are also immensely grateful to all our interview partners for giving their time and sharing their knowledge. We will not name you because we assured you of total anonymity.

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About ShareAction

ShareAction is a campaigning organisation pushing the global investment system to take responsibility for its impacts on people and planet, and use its power to create a green, fair, and healthy society.

We want a future where all finance powers social progress. For 15 years, ShareAction has driven responsibility into the heart of mainstream investment through research, campaigning, policy advocacy and public mobilisation. Using our tools and expertise, we influence major investors and the companies they invest in to improve labour standards, tackle the climate crisis and address inequality and public health issues.

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Introduction

'Almost every company has one or two shiny projects around circular economy or plastics recycling or something else. But that's obviously not enough. And it's an easy distractor.' – Investor participant

While the carbon transformation seems well under way, financial sector participants so far have focused on energy and transport, with relatively little attention given to industrial processes of industries like cement, steel and chemicals. Cement and steel alone are estimated to account for 15% of anthropogenic CO2 emissions.

The report *Industrial Transformation 2050 - Pathways to Net-Zero Emissions from EU Heavy Industry*[1] by *Material Economics* outlines how heavy industry is one of the sectors of the EU economy with stagnating CO_2 emissions abatement and significant fossil fuel use. Yet, while the report goes on to discuss the 'multiple possible pathways' the EU could pursue to achieve the full decarbonisation of its heavy industries by 2050[2], it does not address the significant role the **finance sector** has to play in ensuring this transition – both through investing in solutions and by using investor power to influence more rapid progress towards net zero.

With support of the European Climate Foundation (ECF), ShareAction ran a scoping project that was designed to provide an overview of financial market actors' readiness to support ambitious transition pathways in heavy industries, and the obstacles they see, and to identify what needs to happen to harness the power of the finance sector in order to accelerate transition of the HTA sectors.

- We started by analysing the last 10 years' finance flows into the three sectors (steel, cement and plastics) through new equity, bonds and syndicated loans.
- We then conducted semi-structured interviews with 14 financial market participants and experts.
- In order to structure the interviews, we asked participants to fill in a short survey with questions designed to shed light on the subject.

We spoke with participants from a wide range of institutions, domiciled across the EU. All participants were selected to have at least some expertise of and professional interest in the subject.

Figure 1: Interview partners – statistics

Type of organisation	#
Asset owner	3
Investment Manager	4
Debt Capital Markets	2
Development Bank	1
Expert/Academic	3
Bank	2

Domicile of organisation	#
France	3
Finland	1
Netherlands	2
Norway	1
Sweden	1
UK	7

Source: ShareAction

Interviews were conducted between 21 April 2020 and 10 June 2020.

1 https://materialeconomics.com/material-economics-industrial-transformation-2050.pdf?cms_fileid=303ee49891120acc9ea3d13bbd498d13

2 https://materialeconomics.com/material-economics-industrial-transformation-2050.pdf?cms_fileid=303ee49891120acc9ea3d13bbd498d13

The Financing Situation Of Hard-To-Abate Sectors

In this part of the report, we look at the three hard-to-abate (HTA) sectors steel, cement and plastics in Europe to see how these sectors are financed, what asset classes are involved, which currencies are used, who is raising funds and who is arranging the fundraising.

We are focusing on public equity, public bonds and syndicated loans, leaving out bilateral bank loans for lack of data.[3]

In the following, each of the three sectors is discussed in turn, looking at the industrial background, EU ownership, financing and active parties. We also look in detail at financing currencies and instruments.

1 Steel

1.1 Industry background and research methodology

The Steel industry plays a significant role in the EU economy, supporting 2.6 million jobs and providing approximately EUR 148 billion of Gross Value Added according to consultancy Oxford Economics.[4]

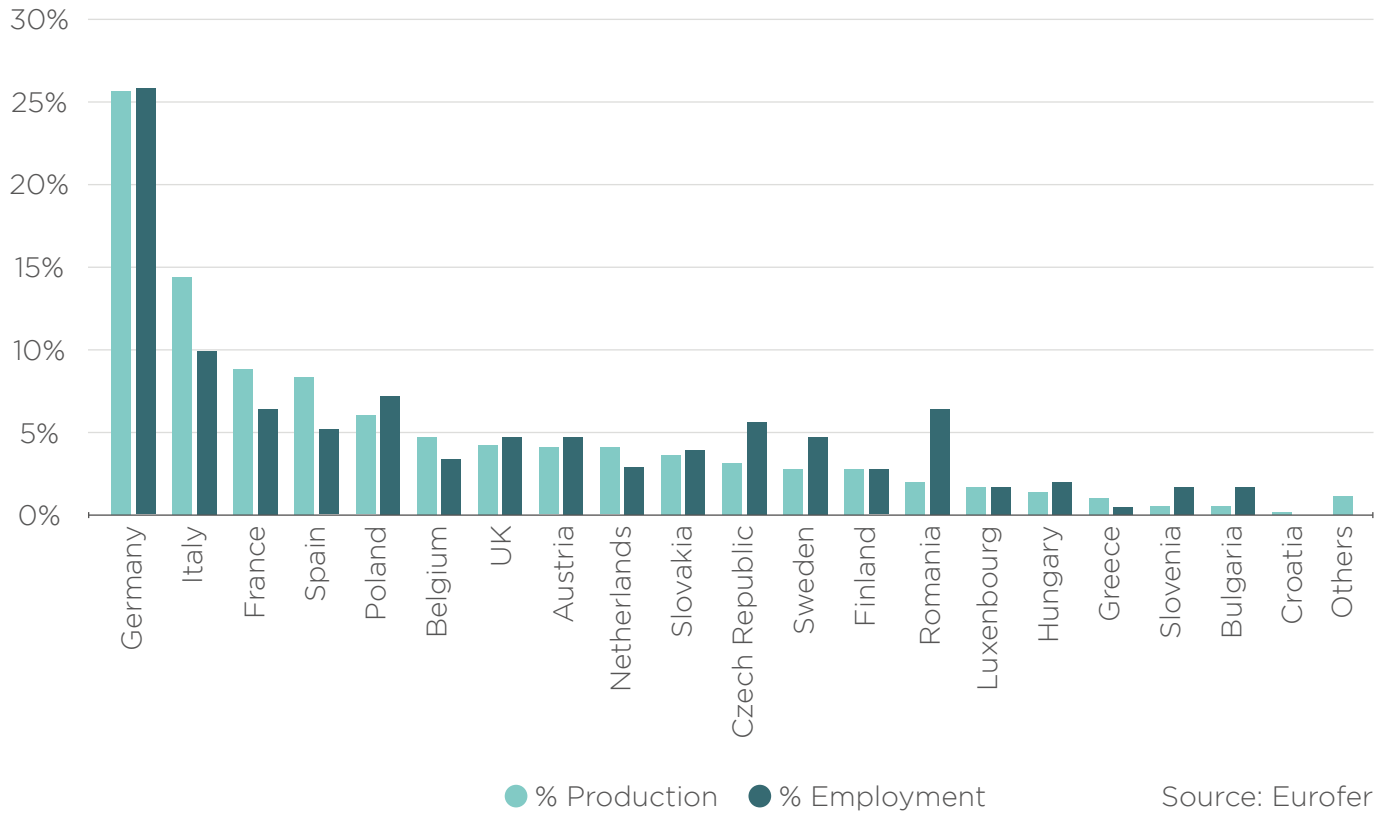
Production is concentrated, with the top five producers accounting for 64% of production. Employment is marginally more evenly distributed between member states in absolute terms (Figure 2).

In recent years, a historical trade surplus in finished steel products has flipped to a deficit (Figure 3). A driving force has been imports from Asia, as well as Russia and Turkey, where imports have doubled in recent years due to cheap prices.

3 While bilateral loans are understood to be large in numbers, they are generally assumed to be of significantly smaller size than syndicated loans. We therefore assume that treating bilateral bank lending out of scope will not materially distort the analysis, but acknowledge that bilateral lending may have a role to play in motivating borrowers to decarbonize.

4 https://www.oxfordeconomics.com/recent-releases/The-impact-of-the-European-steel-industry-on-the-EU-economy

Figure 2: EU Countries' share of steel production and employment (2018)



Source: Eurofer

Figure 3: EU Steel trade balance and employment

Source: Eurofer

Membership of European Steel Association (Eurofer) was used to represent EU steel producers, which according to the association covers the entirety of EU steel production. By mapping membership against data sourced from Refinitiv Eikon, a list of 43 steel companies was generated. Using company reporting, articles, industry reports, and manual web scraping, an estimate for the EU productive capacity of these companies was obtained at 194mt. As many companies operating EU steel plants are owned by larger entities, Eikon was used to find intermediate and ultimate parent companies. This analysis therefore looks at ownership and financing throughout the capital structure, rather than at just the EU subsidiary level.

1.2 Steel shareholder structure and domicile

Figure 4: Ownership

	Public	Private
Eurofer Member	21%	79%
+ Immediate Parent	33%	67%
+ Ultimate Parent	35%	65%
Total Production Capacity (mt)	120	75
% of Capacity	62%	38%

Source: Refinitiv Eikon

As shown by Figure 4, when taking into account parent companies, 35% of EU steel companies are controlled by publicly listed entities. Although in the minority, these entities control the majority of EU production capacity (a figure which we estimate at approximately 60%). However, Figure 5 shows that in some instances, European shareholders do not control a majority of shares*. For example, Asian investors hold the bulk of shares in Tata Steel and ArcelorMittal, two of the largest EU producers. This could present a challenge, as attitudes towards responsible investment differ across geographies. Nevertheless, it is clear that there are points of leverage for European investors to robustly engage with EU steel producers.

Figure 5: Largest steel companies in Europe

Name	Listing	EU Production (mt)	Free Float	European Ownership*
ArcelorMittal	Netherlands	46.0	65%	19%
ThyssenKrupp	Germany	14.5	57%	72%
Tata Steel	India	12.5	67%	3%
Erdemir	Turkey	9.6	39%	91%
voestalpine	Austria	7.8	70%	88%
Salzgitter	Germany	7.0	71%	68%
United States Steel	USA	4.5	98%	10%
Acerinox	Spain	3.5	59%	61%
Outokumpu	Finland	3.3	73%	90%
Novolipetsk Steel	Russia	3.1	19%	99%
Aperam	Netherlands	2.5	59%	35%
Schmolz & Bickenbach	Switzerland	2.3	25%	99%
Comeco	Poland	1.3	-	-
CSN	Brazil	1.1	47%	3%

*Where Eikon shareholdings sum to less than 100%, a pro rata figure is calculated.
Source: Refinitiv Eikon

1.3 Financing flows in the European steel industry

As shown in Figure 6, syndicated loans account for the majority of financing in the EU steel sector, totalling EUR104 billion during the period 2010-2019, equivalent to 62% of total financing. The split is present for most years in this period, as shown by Figure 7.

Equity markets are usually only considered as secondary trading activity. However, while dwarfed by debt financing, new equity raisings still totalled EUR 15 billion.

The syndicated loan market has greater breadth as well as depth relative to equity and bond finance, with 44% of EU steel producers accessing the market, representing 70% of production capacity. Given the minimum size requirements for issuing bonds, it is unsurprising that loans are servicing more EU producers.

Figure 6: Financing by asset class

2010-2019	Financing (EUR billion)	% of companies Issuing	% of capacity issuing
Equity	15	23%	51%
Bonds	50	28%	52%
Syndicated Loans	104	44%	70%

Source: Refinitiv Eikon

Figure 7: Financing flows by asset class over time

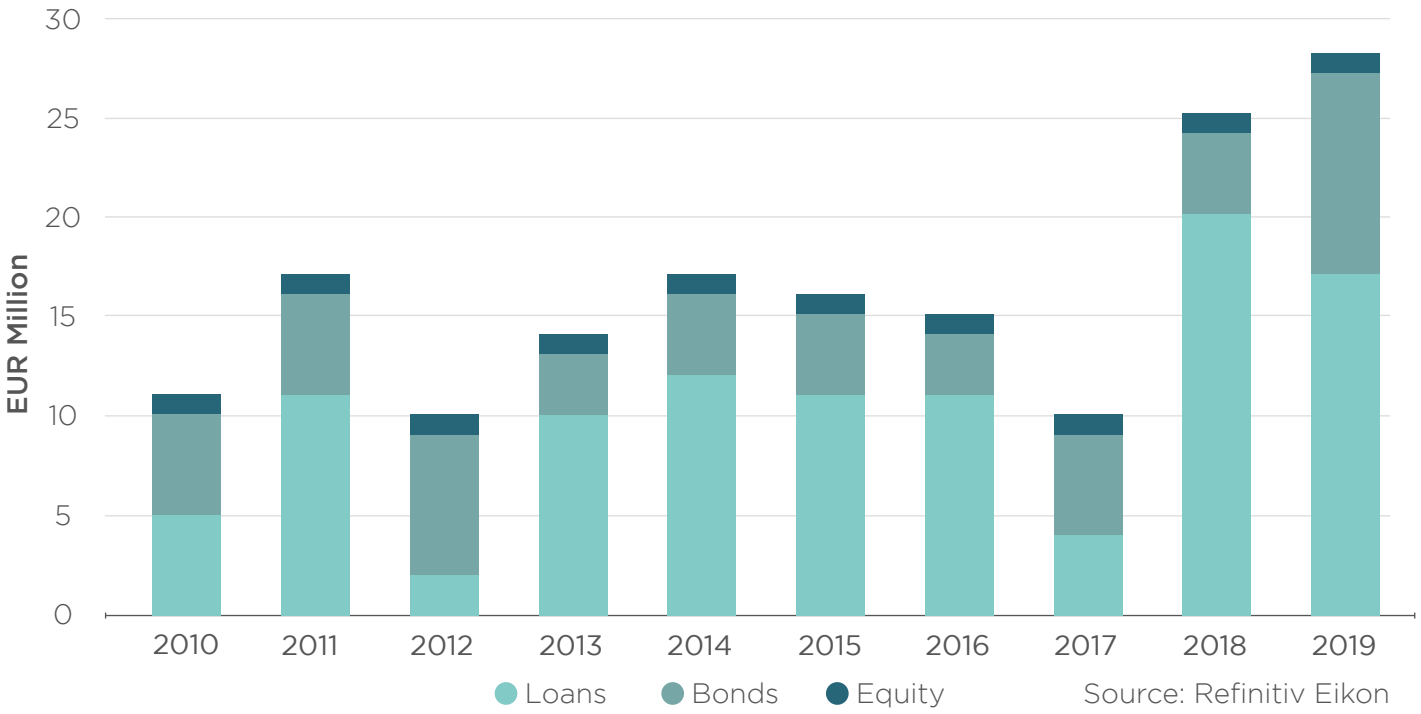
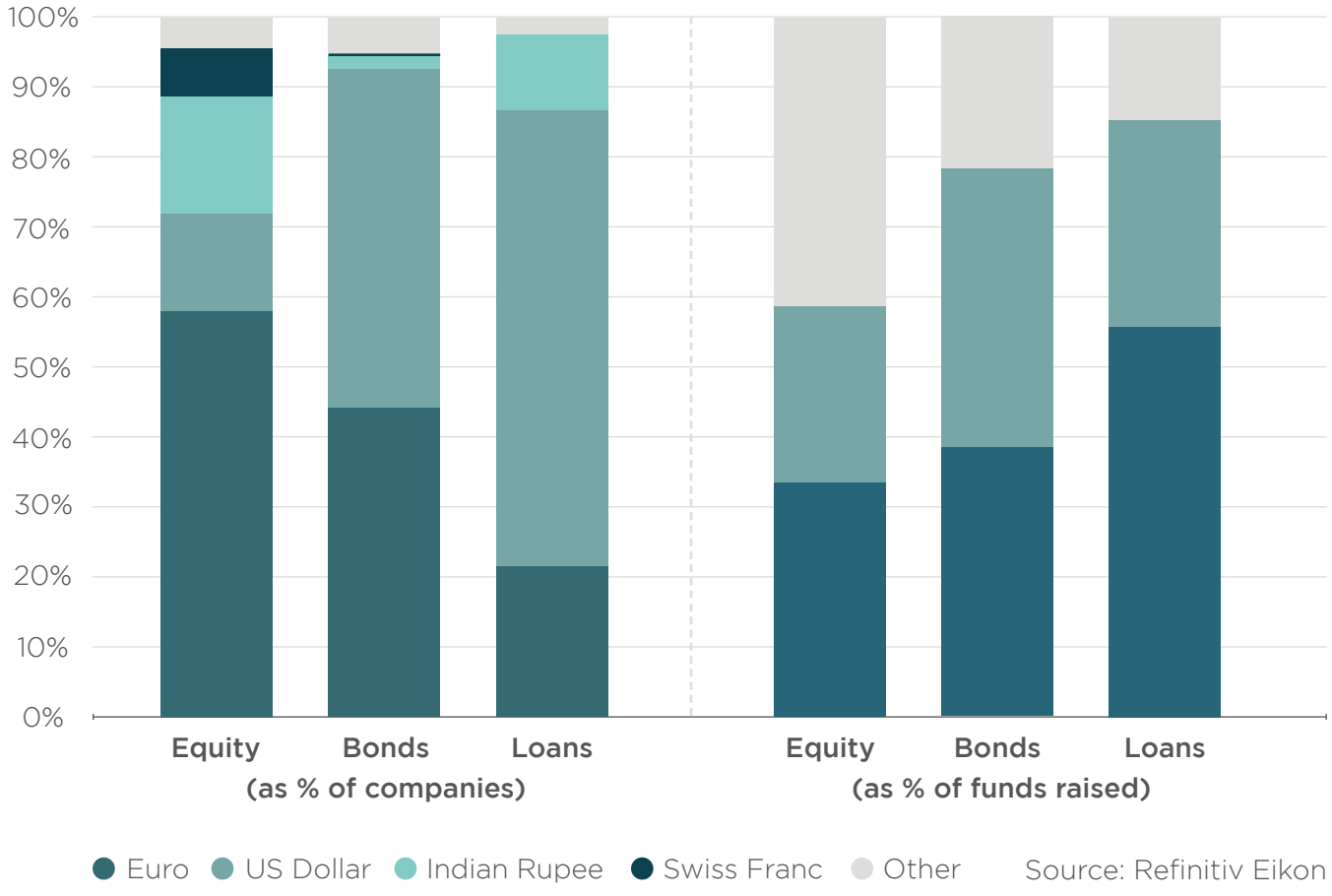


Figure 8 & 9: Choice of Currency (as % of companies) & Choice of Currency (as % of funds raised)

*If a company is issuing in more than one currency it is counted multiple times



As shown in Figure 4, a number of the largest EU steel producers are part of larger international firms. As a result, it is worth assessing the extent to which these companies access European markets for financing.

Figure 8 and Figure 9 break down total issuance in Euro terms across currencies. It is worth highlighting that due to the existence of the eurobond market, where bonds are issued in a currency different to that of the country or market of issuance, these figures are a only a proxy for the role European markets play in the EU steel sector.
In Figure 8, USD issuance outweighs Euro issuance for bonds and loans. This is more pronounced in loan markets, which is somewhat surprising given the documented reliance of European corporates on bank loans relative to the US, where bond markets are more developed.

Figure 9 looks at how many companies have issued in the respective currencies. A higher number of companies are accessing Euro dominated loans, yet the total issuance is lower relative to USD. This makes sense given the structure of the EU steel market, with many small players relying on Euro loans and few larger players accessing international markets for financing (Figure 6).

This underscores the important of banks in engaging with parts of EU steel that bond and equity investors cannot reach. Although these companies tend to be smaller, taken together, their production capacity is significant.

Figure 10, 19 & 29 Currency Key

AUD = Australian Dollar
BGN = Bulgarian Lev
BRL = Brazlian Real
CAD = Canadian Dollar
CHF = Swiss Franc
CNY = Chinese Yuan Renminbi
COP = Colombian Peso
CZK = Czech Koruna
HKD = Hong Kong Dollar
INR = Indian Rupee
JPY = Japanese Yen
MAD = Morrocan Dirham
MXN = Mexican Peso
NGN = Nigerian Naira
NOK = Norwegian Krone
NTD = New Taiwanese Dollar
NZD = New Zealand Dollar
PHP = Phillipine Peso
PKR = Pakistani Rupee
RUB = Russian Ruble
SAR = Saudi Riyal
SEK = Swedish Krona
SGD = Singapore Dollar
THB = Thai Baht
TRY = Turkish Lira
ZAR = South African Rand

Figure 10: Steel – funds raised 2010-2019

Equity

Group	Currency	Transaction Type	Amount (EUR m)	Capacity
Outokumpu Oyj	EUR	Follow-on	1,868	3.3
ThyssenKrupp AG	EUR	Follow-on	3,888	14.5
Tata Steel	INR	Follow-on	2,590	12.5
Acerinox SA	EUR	Follow-on	259	3.5
SCHMOLZ + BICKENBACH AG	CHF	Follow-on	1,019	0.65
Eregli Demir & Celik Fabrikalari Tas	TRY	Follow-on	401	9.6
United States Steel Corp	USD	Follow-on	391	4.5
Cia Siderurgica Nacional	BRL	Follow-on	88	1.1
ArcelorMittal SA	EUR, USD	Follow-on	4,117	46
Novolipetskii Metallurgicheskii	USD, RUB	Follow-on	499	3.1

Currency	Capital Raised (EUR m)	% Total
EUR	8,792	58%
INR	2,591	17%
USD	2,083	14%
CHF	1,019	7%
TRY	401	3%
RUB	147	1%
BRL	88	1%
Total	**15,120**	

Bank	Deal Value	Number of Transactions
Commerzbank AG	1,698	9
JP Morgan & Co Inc	1,481	6
Goldman Sachs International	1,154	6
Deutsche Bank	975	3
BNP Paribas SA	904	5
HSBC	624	2
Credit Agricole	550	3
Citi	516	5
SBI Capital Markets Ltd	481	4
Nordea PLC	479	3

Source: Refinitiv Eikon

Fixed Income

Group	Currency	Amount (EUR m)	Production
voestalpine AG	EUR	2,450	7.81
Outokumpu Oyj	EUR	1,150	3.3
ThyssenKrupp AG	EUR	10,236	14.5
Tata Steel	USD, INR, SGD	3,339	12.5
Acerinox SA	EUR	75	3.5
Schmolz+Bickenbach	EUR	758	0.65
US Steel	USD	2,965	4.5
Cia Siderurgica Nacional	USD, BRL	3,450	1.1
ArcelorMittal SA	USD, EUR, CHF	17,443	46
Novolipetskii Metallurgicheskii	USD, RUB	3,582	3.1
Aperam SA	USD	335	2.5
Metinvest BV	EUR, USD	3,749	0.6

Currency	Capital Raised (EUR m)	% Total
USD	24,086	49%
EUR	21,783	44%
BRL	1,189	2%
RUB	1,121	2%
INR	974	2%
CHF	214	0%
SGD	186	0%
Grand Total	**49,553**	

Bank	Deal Value	Number of Transactions
Citi	4,250	24
UniCredit	3,572	21
JP Morgan & Co Inc	3,151	22
Deutsche Bank	3,131	22
ING	3,071	26
BNP Paribas SA	2,722	21
Commerzbank AG	2,338	19
Credit Agricole	2,297	16
Bank of America Merrill Lynch	2,262	20
Societe Generale SA	2,051	16

Loans

Figure 10 (continued)

Group	Currency	Amount (EUR m)	Production
Acciaieria Arvedi Spa	EUR	675	4
AFV Accaierie Beltrame SpA	EUR	475	3.2
Aperam SA	EUR, USD	2,567	2.5
ArcelorMittal SA	USD, ZAR	50,552	46
voestalpine AG	EUR	3,330	7.81
Outokumpu Oyj	EUR	5,874	3.3
Salzgitter AG	EUR	1,060	7
ThyssenKrupp AG	EUR	4,300	14.5
Tata Steel	EUR, USD, BGN, INR	19,416	12.5
Acerinox	ZAR	491	3.5
SCHMOLZ + BICKENBACH AG	EUR	875	0.65
Eregli Demir & Celik Fabrikalari Tas	USD	9,248	9.6
United States Steel Corp	USD, EUR	5,235	4.5
Georgsmarienhütte	EUR	800	1.2
Cia Siderurgica Nacional	EUR	190	1.1
Novolipetskii Metallurgicheskii	EUR, USD	1,099	3.1
SIJ - Slovenian Steel Group	EUR	250	0.5
Metinvest BV	EUR, USD	5,073	0.6
Liberty House	USD	925	10

Currency	Capital Raised (EUR m)	% Total
USD	68,314	66%
EUR	21,926	21%
INR	11,579	11%
GBP	874	1%
ZAR	802	1%
BGN	7	0%
Grand Total	**103,502**	

Bank	Deal Value	Number of Transactions
ING	5,645	48
BNP Paribas SA	4,997	39
Credit Agricole	4,883	37
UniCredit	4,334	32
Societe Generale	4,226	27
Commerzbank AG	4,186	25
Bank of America	3,926	22
SBI Capital Markets Ltd	3,870	3
Citi	3,424	24
Deutsche Bank	3,382	33

Figure 10 gives, for the three primary markets equity, bonds and syndicated loans, the biggest issuers, the most important currencies of issuance, and the most important banks involved in arranging and syndicating financing deals for EU steel producers (where deals have multiple dealmakers, deal value is counted on a pro-rata basis.)

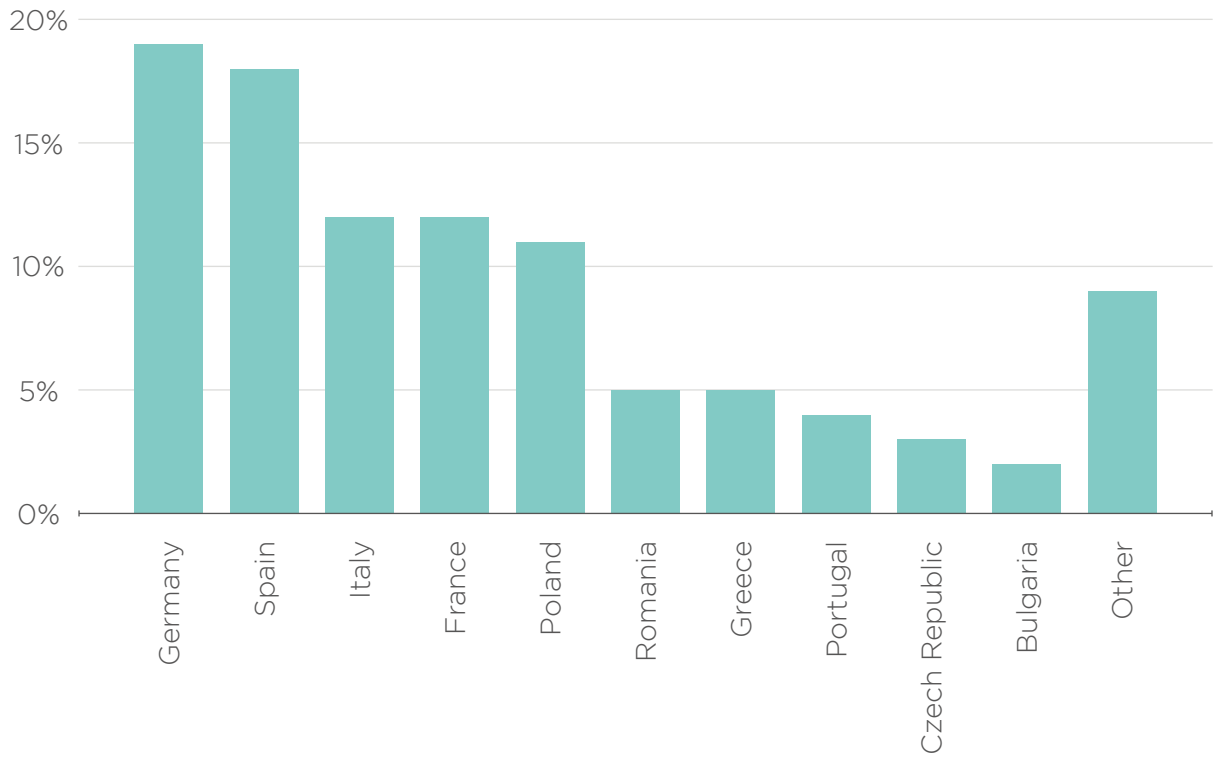
It is notable that loan origination in steel is dominated by European banks, while equity and bond underwriting is more equally distributed between US and European banks. USD dominates loans as an issuing currency, while EUR dominates equity issuance.

2 Cement

2.1 Industry background and research methodology

The European Cement Federation estimates that in 2015, cement production in the EU amounted to 167 million tonnes, representing 4% of global production, placing the EU as the third largest producer behind India with a production of 270 million tonnes. China dominates global production with an estimated volume of 2.35 billion tonnes representing 51% of global production in 2015.
The EU cement and concrete industry is directly responsible for EUR20 billion in value added and indirectly for EUR 57 billion, which is linked to 1.1 million jobs. In the wake of the financial crisis in 2008, the trade balance flipped from deficit to surplus, and has stayed in surplus ever since.

Figure 11: European Cement production – Market Share 2016



Source: CSI Global Cement Database and GNR

Figure 12: European Cement trade balance

In order to profile the EU cement industry, the database of cement plants from *Cemnet Global Cement Report 2018* was used. This online database provides access to the ownership of individual plants in the EU. From this, after controlling for M&A transactions and parent subsidiary relationships, a list of 50 companies was obtained. An estimate of 340mt for the EU capacity of these companies was calculated through a combination of company reporting, articles, and industry reports. As estimate for EU capacity was obtained for 92% of companies studied.

As many companies operating EU cement plants are owned by larger entities, Eikon was used to find intermediate and ultimate parent companies. This analysis therefore looks at ownership and financing throughout the capital structure, rather than at just the EU subsidiary level.

2.2 Cement shareholder structure and domicile

The EU cement market appears even more concentrated than the EU steel industry, with the five largest companies controlling around 69% of total capacity. These five companies are publicly listed, and as a result, although only 30% of EU cement producers are publicly listed, they account for 78% of capacity (Figure 13).

Figure 13: Ownership

	Public	Private
Company	22%	78%
+ Immediate Parent	30%	70%
+ Ultimate Parent	30%	70%
Total Production Capacity	264	76
% of Capacity	78%	22%

Source: Refinitiv Eikon

Furthermore, apart from Cemex, which is listed is Mexico and has low European ownership, European shareholders control a significant proportion of these listed companies (Figure 14). Although it is worth highlighting that the free float is below 50% in half of these companies, which could limit shareholder leverage. However, as outlined in ShareActions recent report *Decarbonising Cement: The Role of Institutional Investors*[5], the cement industry should be a priority for investors looking to mitigate systemic climate risk in their portfolios.

Figure 14: Largest Cement companies in Europe

Name	Listing	% of EU Capacity	Free Float	European Ownership*
HeidelbergCement	Germany	23.9%	74%	61%
LafargeHolcim	Switzerland	21.7%	83%	62%
CRH	United Kingdom	8.0%	100%	53%
Buzzi Unicem	Italy	7.9%	43%	88%
Cemex	Mexico	7.3%	100%	19%
Vicat	France	2.6%	37%	92%
Titan Cement	Belgium	2.1%	58%	-
Cementir	Italy	1.6%	29%	96%
Semapa	Portugal	1.2%	23%	97%
Breedon Group	United Kingdom	0.6%	87%	98%
Cementos Molins	Spain	0.5%	7%	100%
Asamer Baustoffe	Austria	0.3%	-	-
Cimsa Cimento	Turkey	0.2%	36%	90%
Hoffmann Green Cement	France	-	23%	100%

*Where Eikon shareholdings sum to less than 100%, a pro rata figure is calculated.

Source: Refinitiv Eikon

5 https://shareaction.org/wp-content/uploads/2019/10/CementBriefingForInvestors.pdf

2.3 Financing flows in the European cement industry

As shown in Figure 15, syndicated loans account for the majority of financing in the EU cement sector, totalling EUR 64 billion during the period 2010-2019, equivalent to 61% of total financing. The split is present for most years in this period, as shown by Figure 16.

As with steel, equity markets are usually only considered as a secondary trading activity. Again, while dwarfed by debt financing, new equity raisings for cement still totalled EUR 8 billion (as for steel, about a third of bond issuance). Figure 15 also shows that the syndicated loan market has very low coverage within the EU cement industry, with only 26% of EU cement producers accessing the market. This could be due to smaller firms obtaining bilateral loans with banks that are not captured by Eikon.

Figure 15: Financing by asset class

2010-2019	Financing (EUR billion)	% of companies Issuing	% of capacity issuing
Equity	8	14%	63%
Bonds	33	14%	67%
Syndicated Loans	64	26%	82%

Source: Refinitiv Eikon

Figure 16: Financing flows by asset class over time

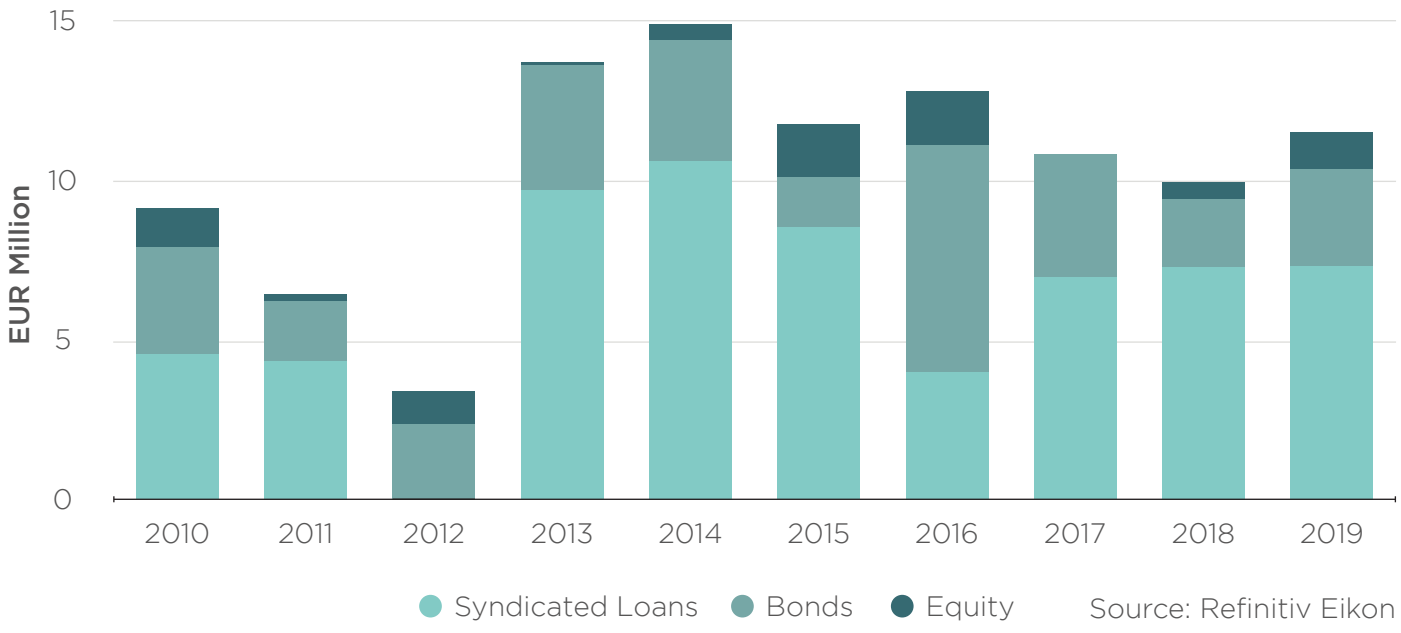
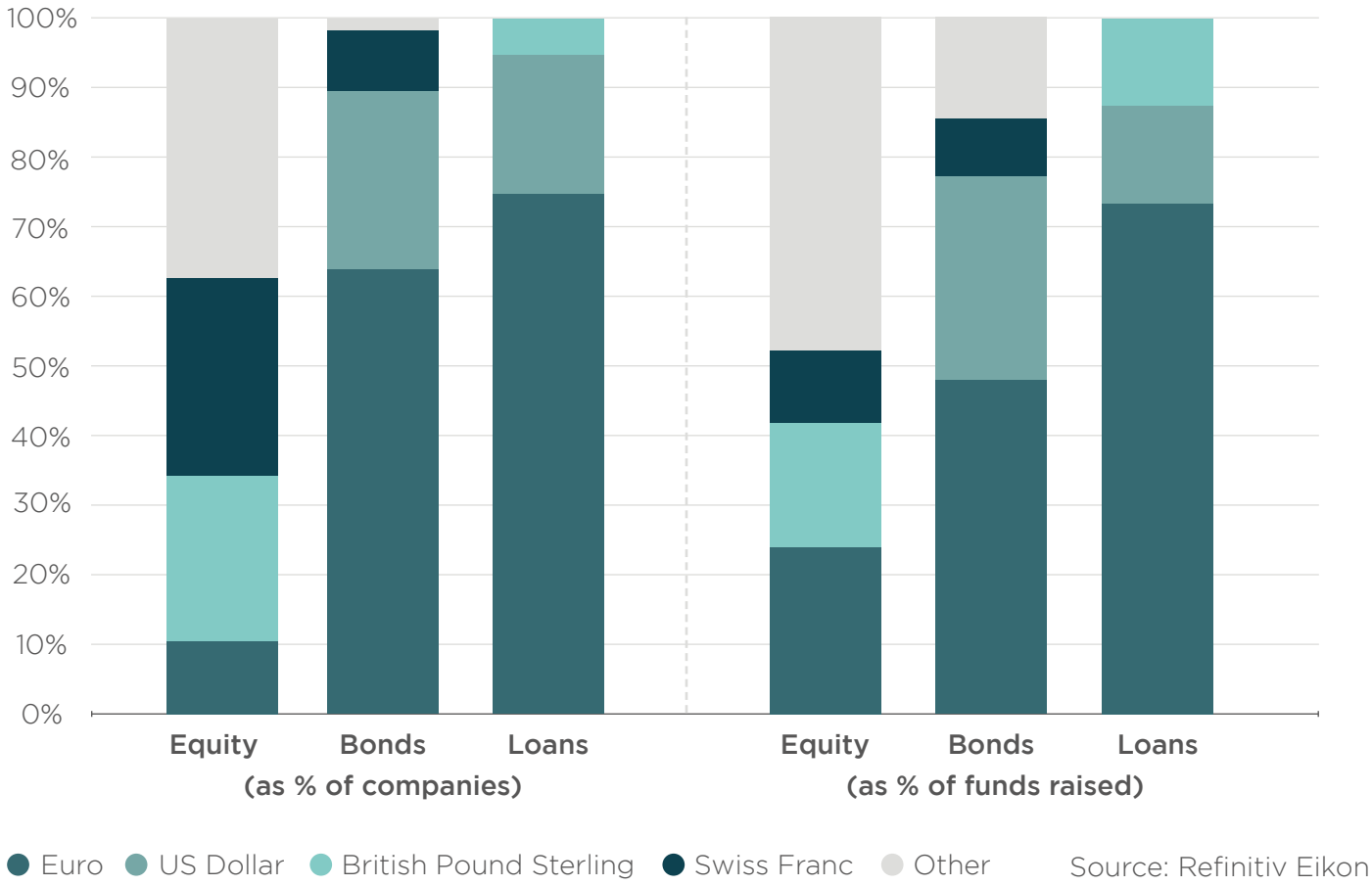


Figure 17 & 18: Choice of Currency (as % of companies) & Choice of Currency (as % of funds raised)

*If a company is issuing in more than one currency it is counted multiple times



Source: Refinitiv Eikon

As shown on Figure 14, only one EU cement producer is listed outside of Europe. As a result, we see the bulk of equity financing occurring in Euros, Sterling, and Swiss Franc.

According to Figure 12, over the past decade the EU has switched from being an importer to an exporter. As a result, the EU cement industry may have fewer requirements for foreign currency, as cement is no longer imported in large quantities.

Figure 17 and Figure 18 both show that European capital markets are critical for the EU cement industry. This differs from the EU Steel industry, where USD issuance plays a much larger role.

Figure 19 shows, for the three primary markets equity, bonds and syndicated loans, the biggest issuers, the most important currencies of issuance, and the most important banks involved in arranging and syndicating financing deals for EU cement producers (where deals have multiple dealmakers, deal value is counted on a pro-rata basis).

Figure 19: Cement – funds raised 2010-2019

Equity

* Aquired by HeidelbergCement

Group	Currency	Transaction Type	Amount (EUR m)	Production
HeidelbergCement AG	EUR, MAD	Follow-On	330	81.2
Titan Cement	EUR	Follow-On	68	7
CRH	GBP	Follow-On	1,620	27.1
Italcementi*	EUR	Follow-On	692	
LafargeHolcim	CHF, NGN, CNY	Follow-On	2,894	73.7
Breedon Group PLC	GBP	Follow-On	507	2
Cemex	MXN, COP, PHP	Follow-On, IPO	2,213	24.8
Hoffmann Green Cement Technologies SA	EUR	IPO	56	-

Currency	Capital Raised (EUR m)	% Total
GBP	2,127	26%
CHF	2,081	25%
MXN	1,010	12%
EUR	807	10%
COP	784	10%
NGN	607	7%
PHP	419	5%
CNY	205	3%
MAD	139	2%
Grand Total	**8,180**	**-**

Bank	Deal Value	Number of Transactions
UBS Investment Bank	1616	2
JP Morgan & Co Inc	763	4
Bank of America Merrill Lynch	601	2
Citi	575	4
Union Bank of Switzerland	435	2
Davy	405	1
UniCredit	346	2
Goldman Sachs International	312	1
Cenkos Securities PLC	292	4
Mediobanca SpA	250	1

Source: Refinitiv Eikon

Fixed Income

Group	Currency	Amount (EUR m)	Production
HeidelbergCement AG	EUR	10,072	81.2
Titan Cement	EUR	1,150	7
Italcementi*	EUR	1,250	
LafargeHolcim	EUR, USD, CHF, BRL	6,527	73.7
Cemex	EUR, USD	12,455	24.8
Buzzi Unicem SpA	EUR, USD	997	26.8
Semapa	EUR	450	4
Vicat	USD	401	9

Currency	Capital Raised (EUR m)	% Total
EUR	21,000	63%
USD	10,203	31%
CHF	1,949	6%
BRL	150	0.5%
Grand Total	**33,302**	**-**

Bank	Deal Value	Number of Transactions
BNP Paribas SA	2,827	23
Citi	2,770	18
Bank of America Merrill Lynch	2,720	20
ING	2,118	16
JP Morgan & Co Inc	2,025	14
HSBC Bank PLC	1,965	15
Morgan Stanley & Co	1,430	9
Credit Agricole (New York)	1,391	10
Deutsche Bank	1,257	10
RBS	1,216	10

Loans

Figure 19 (continued)

Group	Currency	Amount (EUR m)	Production
Vicat	EUR	1,870	9
HeidelbergCement AG	EUR	18,300	81.2
Titan Cement	EUR	455	7
CRH	EUR	13,900	27.1
Italcementi*	EUR	1,370	
Secil	EUR	100	4
Grupo Cementos Portland	EUR	1,920	11
Cementos Molins	EUR	180	1.6
LafargeHolcim	EUR, USD	7,681	73.7
Buzzi Unicem SpA	EUR	500	26.8
Dyckerhoff AG**	EUR	150	
Colacem	EUR	155	10
Breedon Group PLC	GBP	1,227	1
Cemex	USD, EUR, GBP	15,916	24.8
Ecocem	EUR	43	2.4

*Ex leverage buyouts, **Acquired by Buzzi

Currency	Capital Raised (EUR m)	% Total
EUR	48,567	76%
USD	13,185	21%
GBP	2,016	3%
Grand Total	**63,768**	

Bank	Deal Value	Number of Transactions
Citi	4,291	19
BNP Paribas SA	4,136	25
ING	4,107	24
HSBC Bank PLC	3,344	21
BankAmerica	3,241	16
JP Morgan	3,066	16
BBVA	2,981	13
Credit Agricole	2,470	18
Banco Santander SA	2,352	11
RBS	2,243	11

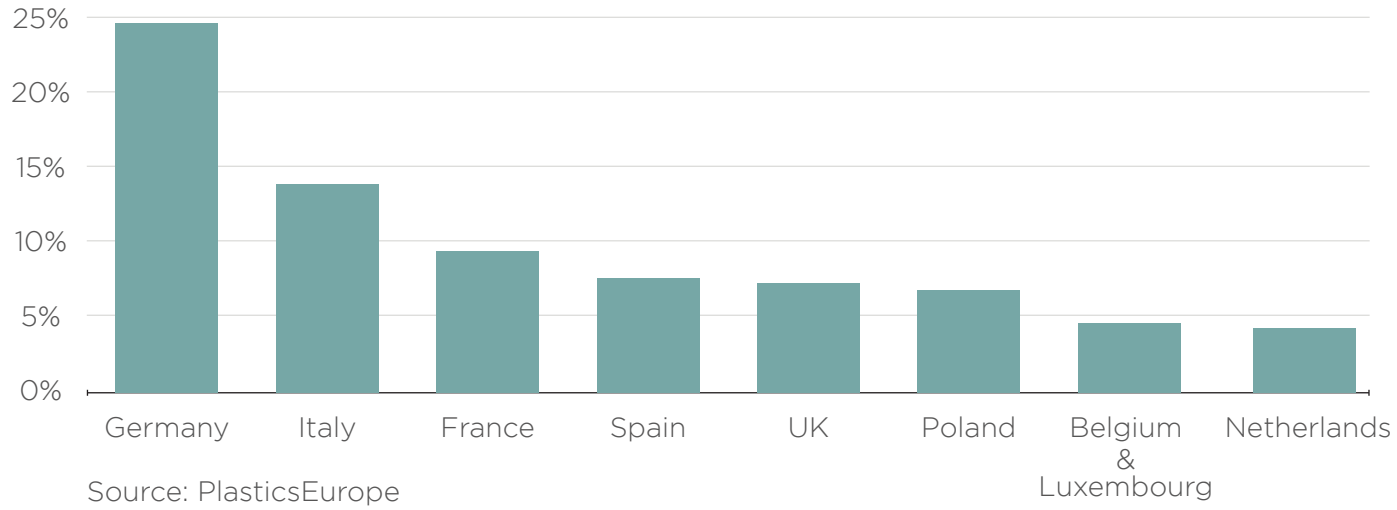
Unlike for steel, where European banks are leading in syndicated loans, arranging activity is more evenly split in cement is as distributed between US and European banks. The same is true for equity and bond underwriting. EUR is the dominating cement financing currency for fixed income (loans and bonds), while the biggest currency in cement equity issuance is GBP (driven by CRH).

3 Plastics

3.1 Industry background and research methodology

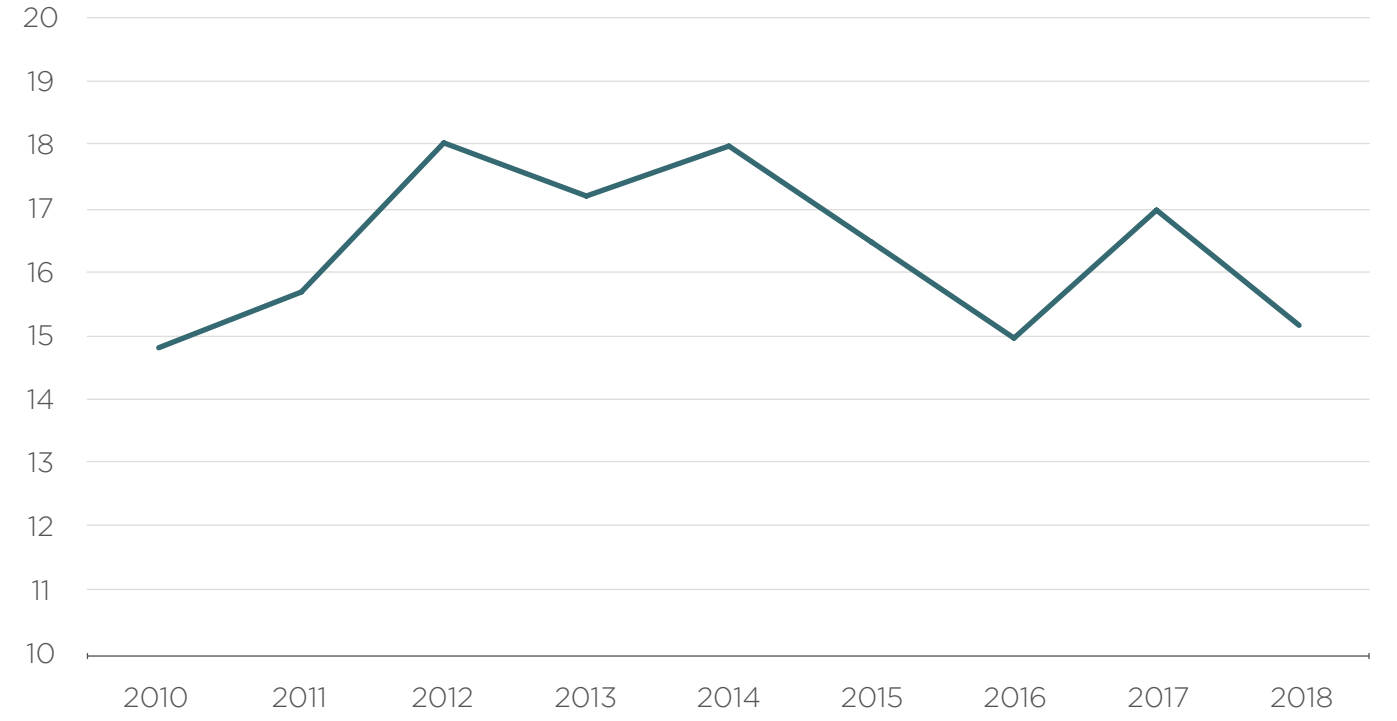
In 2018, the EU accounted for 17% of global plastic production. This industry provides 1.6 million direct jobs. Over the past decade, the EU plastics industry has had a continuous trade surplus. In 2018 this trade balance was EUR 15 billion.

Figure 20: EU Plastics demand



Source: PlasticsEurope

Figure 21: EU Plastics trade balance



Source: PlasticsEurope

To represent EU plastics industry, the membership of *PlasticsEurope* was used, representing over 90% of EU production. A list of 57 companies was obtained. In this instance, no production data was collected due to high variation in the type of plastics produced by different companies.

As many EU plastic producers are owned by larger entities, Eikon was used to find intermediate and ultimate parent companies. This analysis therefore looks at ownership and financing throughout the capital structure, rather than at just the EU subsidiary level. We looked at group level corporate financing for large oil producers, but excluded subsidiaries that are not related to plastics production.

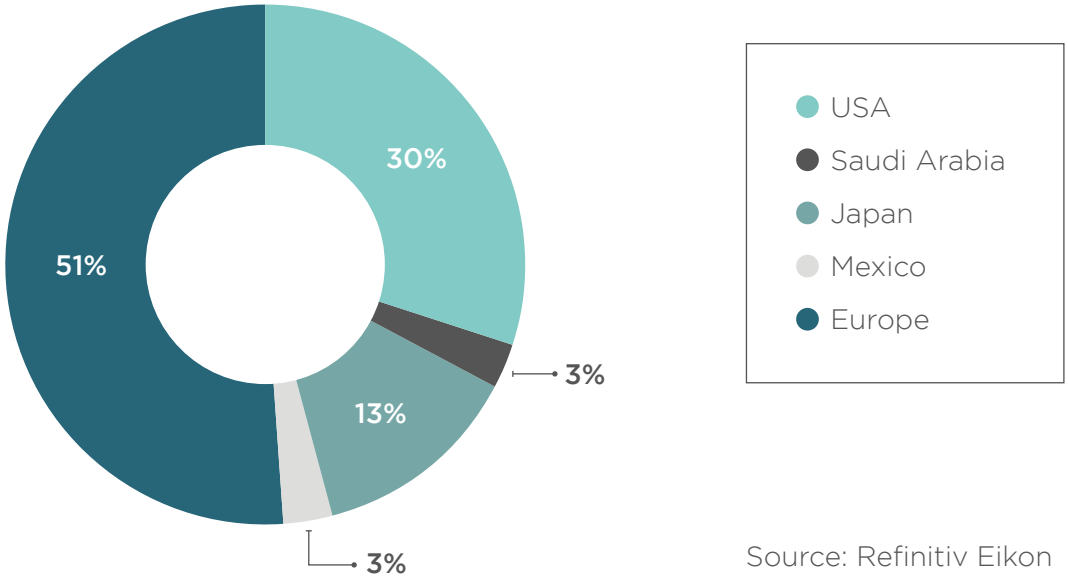
3.2 Plastics shareholder structure and domicile

Figure 22: Ownership

	Public	Private
Company	33%	67%
+ Immediate Parent	57%	43%
+ Ultimate Parent	60%	40%

Source: Refinitiv Eikon

Figure 23: Geographic Split of Listing



Source: Refinitiv Eikon

Unlike steel and cement, the majority of the EU plastic producers are controlled by a publicly listed companies. However, as shown in Figure 23, approximately 50% of the public companies in Figure 24 are listed outside of Europe, where ownership by European investors tends to be lower.

Figure 24: Largest Plastics companies in Europe

Name	Listing	Market Cap (billion EUR)	Free Float	European Ownership
Exxon Mobil	USA	188.4	100%	11%
Royal Dutch Shell	Netherlands	114.5	100%	49%
3M	USA	82.9	100%	14%
SABIC	Saudi Arabia	62.6	30%	1%
BASF	Germany	50.6	100%	46%
Shin-Etsu Chemical	Japan	43.3	98%	14%
Daikin Industries	Japan	39.8	92%	15%
Dupont De Nemours	USA	34.6	100%	9%
Eni	Italy	31.2	68%	80%
Dow	USA	28.4	100%	11%
LyondellBasell	USA	21.6	77%	34%
Koninklijke DSM	Netherlands	21.0	100%	46%
Ems Chemie Holding	Switzerland	15.3	29%	96%
Repsol	Spain	13.4	91%	65%
Evonik Industries	Germany	11.2	41%	92%
Celanese	USA	9.8	99%	9%
Solvay	Belgium	7.4	69%	81%
PKN	Poland	6.7	68%	90%
Covestro	Germany	6.3	92%	67%
AGC	Japan	6.2	89%	16%
Arkema	France	6.1	89%	70%
LANXESS	Germany	4.2	94%	54%
Braskem	Brazil	3.8	55%	2%
Huntsman	USA	3.7	89%	4%
Kuraray	Japan	3.5	98%	12%
Wacker Chemie	Germany	3.2	30%	96%
Orbia	Mexico	3.1	48%	11%
Chemours	USA	2.3	99%	7%
Victrex	United Kingdom	1.9	97%	62%
Olin Corp	USA	1.9	98%	4%
Ube Industries	Japan	1.7	98%	15%
Trinseo	USA	0.8	98%	24%
Hexion Holdings	USA	0.4	100%	-
Ercros	Spain	0.2	52%	88%
Radici Pietro	Italy	0.0	23%	-

Source: Refinitiv Eikon

3.3 Financing flows in the European plastics industry

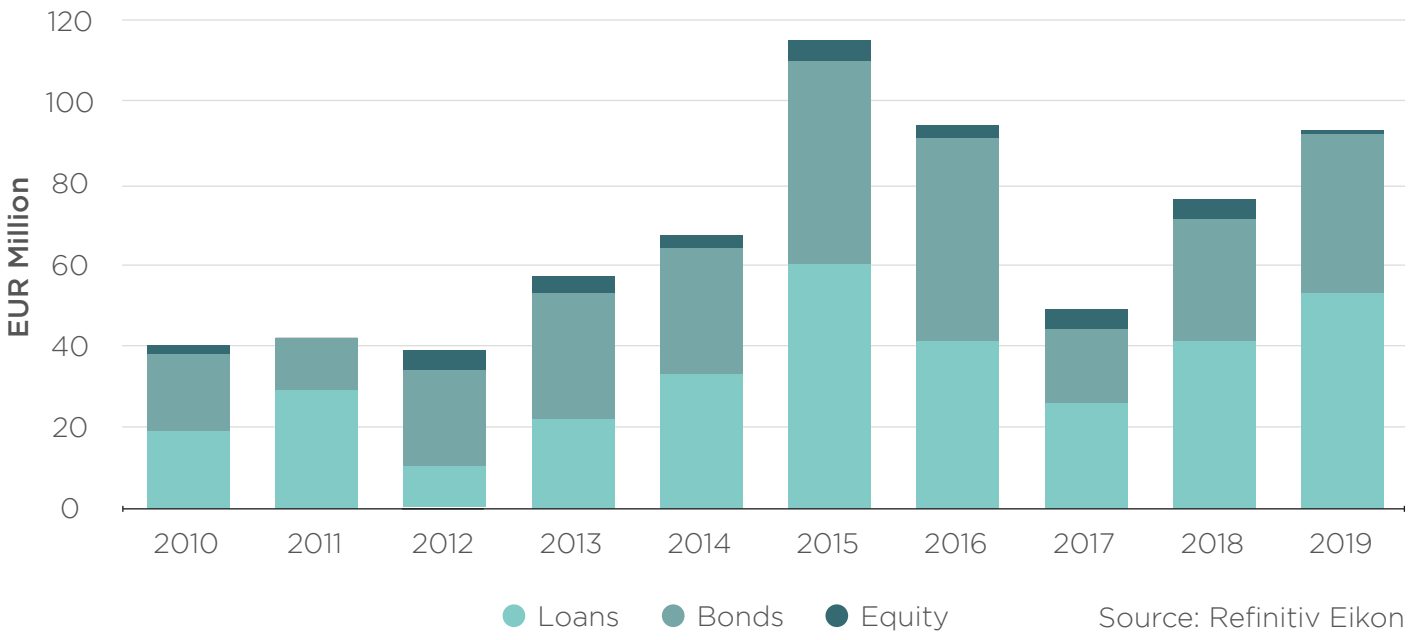
Unlike in the steel and cement industry, the companies controlling EU plastics production rely on almost an even split of bonds and syndicated loans (Figure 25 and Figure 26). The portion of new equity is very small. This may be due to the large number of US companies involved, which typically rely on bond finance, and are keen to avoid equity finance.

Figure 25: Financing by asset class

2010-2019	Financing (EUR billion)	% of Companies Issuing
Equity	33	25%
Bonds	304	58%
Syndicated Loans	333	68%

Source: Refinitiv Eikon

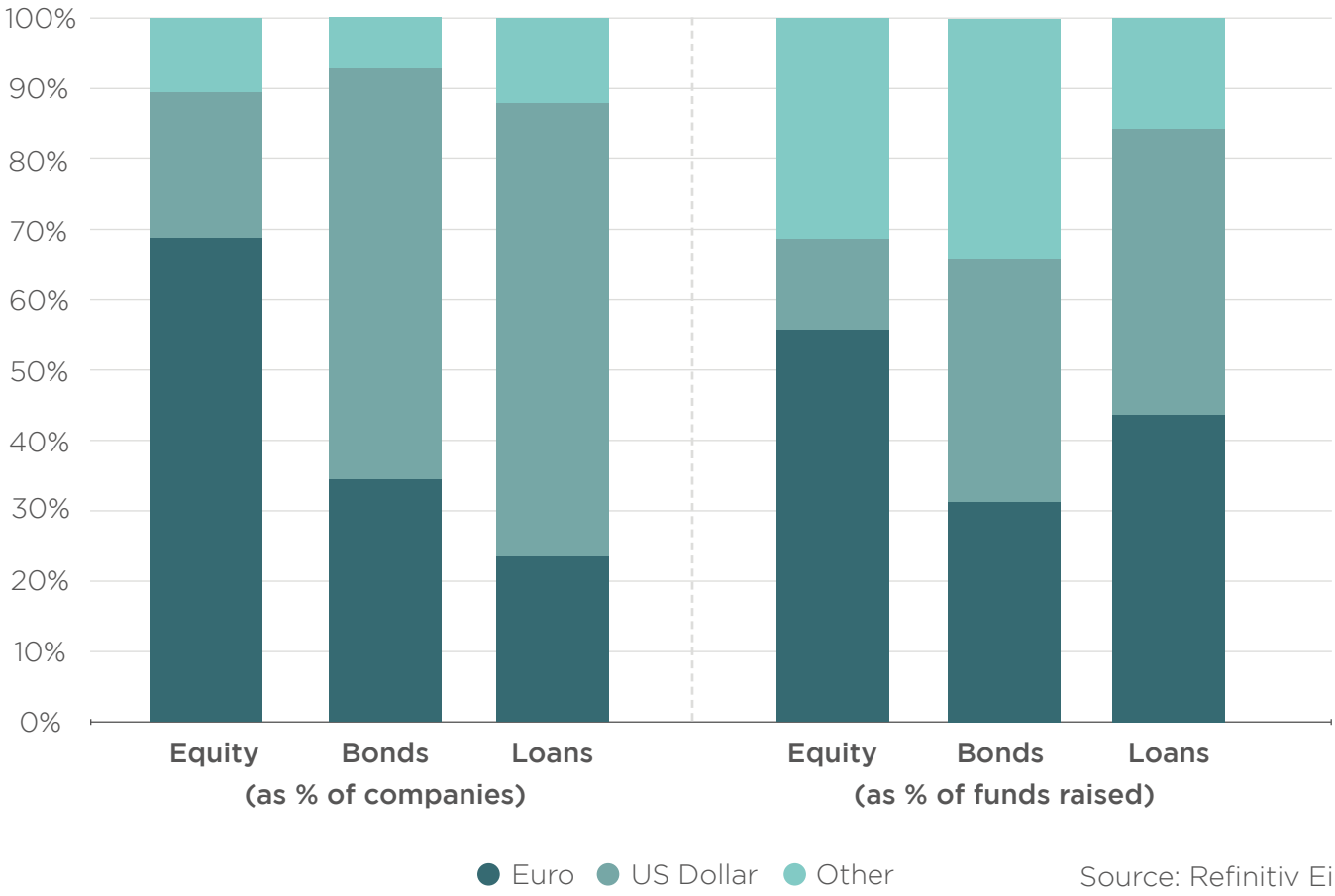
Figure 26: Financing flows by asset class over time



Again, given the presence of large US and international firms, this could reduce the share of Euro issuance in the bond and syndicated loan market (Figure 27 and Figure 28).

Figure 27 & 28: Choice of Currency (as % of companies) & Choice of Currency (as % of funds raised)

*If a company is issuing in more than one currency it is counted multiple times



Source: Refinitiv Eikon

Figure 29 shows, for the three primary markets equity, bonds and syndicated loans, the biggest issuers, the most important currencies of issuance, and the most important banks involved in arranging and syndicating financing deals for EU cement producers (where deals have multiple dealmakers, deal value is counted on a pro-rata basis.)

Figure 29: Plastics – Funds raised 2010-2019

Equity

Group	Currency	Transaction Type	Amount (EUR m)
Solvay SA	EUR	Follow-On	1,521
Braskem	BRL	Follow-On	1,854
Arkema SA	EUR	Follow-On	784
Covestro AG	EUR	IPO, Follow-On	10,225
Lanxess AG	EUR	Follow-On	433
Eni SpA	EUR	Follow-On	186
Mexichem SAB de CV/Orbia	MXN	Follow-On	818
AGC Inc	JPY, PKR	Follow-On	208
Ercros SA	EUR	Follow-On	4
Repsol SA	EUR	Follow-On	3,904
Radici Pietro Industries & Brands	EUR	IPO	6
Evonik Industries AG	EUR	IPO, Follow-On	3,590
Trinseo SA	USD	IPO, Follow-On	1,663
LyondellBasell Industries NV	USD, INR	Follow-On	5,933

Currency	Capital Raisaed (EUR m)	% Total
EUR	22,546	68%
USD	7,592	23%
BRL	1,854	6%
MXN	818	2%
JPY	172	1%
PKR	36	0%
INR	5	0%
Grand Total	**33,022**	

Bank	Deal Value	Number of Transactions
Barclays	4,045	7
Deutsche Bank	3,828	10
Goldman Sachs & Co	3,548	9
Citi	3,307	9
Bank of America Merrill Lynch	3,096	10
JP Morgan & Co Inc	2,802	7
Morgan Stanley	2,636	10
Credit Suisse	1,866	6
UBS Investment Bank	1,357	3
BNP Paribas SA	593	3

Source: Refinitiv Eikon

Fixed Income

Group	Currency	Amount (EUR m)
Solvay SA	EUR, USD	6,853
Braskem	USD	6,771
Arkema SA	Euro	4,320
Wacker Chemie AG	USD	308
BASF SE	EUR, USD, GBP, JPY, HKD, NOK	15,185
Covestro AG	EUR	1,497
Lanxess AG	EUR, CNY	3,131
Eni SpA	EUR, USD	19,142
Ube Industries Ltd	JPY	918
AGC Inc	JPY	647
Kuraray Co Ltd	JPY	1,350
Mexichem SAB de CV	USD, MXN	2,742
Koninklijke DSM NV	EUR	2,243
Shell	EUR, USD, GBP, CHF	61,022
Repsol	EUR	9,846
Celanese Corp	EUR, USD	3,413
Du Pont	USD	6,252
Chevron Phillips Chemical Co LLC	USD	2,980
Olin Corp	USD	1,750
Exxon Mobil Corp	USD	28,417
Huntsman International LLC	EUR, USD	2,244
Sabic	EUR, USD, SAR	4,339
Evonik Industries AG	EUR	3,627
Trinseo SA	EUR, USD	2,069
3M Co	Euro, USD	18,376
LyondellBasell Industries NV	EUR, USD	9,270
Total	EUR, USD, GBP, CHF, AUD, HOK, CAD, NZD, CNY, NOK, SEK	57,747
INEOS Styrolution	EUR	480
The Chemours Co	EUR, USD	906
SIBUR Securities Ltd	USD, RUB	879
Bewi Group AB	EUR, SEK	131
Borealis AG	EUR, USD	871
DuPont de Nemours	USD	23,150

Figure 29: Plastics (continued)

Fixed Income (continued)

Currency	Capital Raised (EUR m)	% Total
USD	177,337	58.4%
EUR	111,401	36.7%
GBP	5,395	1.8%
JPY	2,991	1.0%
CHF	2,440	0.8%
AUD	1,306	0.4%
NOK	628	0.2%
MXN	442	0.1%
HKD	427	0.1%
SAR	418	0.1%
CAD	336	0.1%
CNY	190	0.1%
NZD	184	0.1%
RUB	131	0.0%
SEK	122	0.0%
Grand Total	**30,3750**	

Bank	Deal Value	Number of Transactions
Barclays	26,199	90
Deutsche Bank	24,391	106
Morgan Stanley & Co	22,087	74
JP Morgan & Co Inc	21,833	95
HSBC Bank PLC	20,267	88
Citi	18,244	94
Bank of America Merrill Lynch	14,775	79
Goldman Sachs & Co	14,434	54
BNP Paribas SA	14,108	53
ING	12,834	65

Loans

Group	Currency	Amount (EUR m)
Solvay SA	EUR, USD	14,576
VYNOVA	EUR	50
Braskem	USD	2,181
Arkema SA	EUR	3,100
Wacker Chemie AG	EUR	1,200
BASF	EUR	21,000
Covestro AG	EUR	2,700
Lanxess AG	EUR	5,250
Sibur	EUR, USD	1,125
Ube Industries Ltd	JPY	992
Kuraray Co Ltd	JPY	428
Daikin Industries Ltd	USD, JPY	6,962
Mexichem SAB de CV	USD	3,105
Koninklijke DSM NV	EUR, NTD	3,632
Royal Dutch Shell PLC	USD, GBP, CNY	48,612
Polski Koncern Naftowy ORLEN SA	EUR, USD	5,449
Ercros SA	EUR	132
Repsol	EUR	390
Celanese	EUR, USD	6,045
DuPont	USD	13,873
Chevron Phillips Chemical Co LLC	USD	2,270
Olin Corp	USD	6,680
Exxon Mobil Corp	USD	31,836
Hunstman	USD	8,826
SABIC	USD, SAR	18,879
Lyondell Chemical Co	USD	1,684
SPOLCHEMIE	CZK	86
Evonik Industries AG	EUR	13,698
Trinseo	USD	3270
3M Co	USD	11,155
Dow Chemical	USD	4,522
WL Gore & Associates Inc	USD	1,266
LyondellBasell Industries NV	EUR, USD	17,431
INEOS Styrolution	EUR, USD	4,045
Synthos SA	EUR	1,070
The Chemours Co	EUR	3,016
INOVYN	EUR	3,967
Borealis AG	EUR, USD, JPY	4,703
DuPont de Nemours	EUR, USD, THB	53,885

Figure 29: Plastics (continued)

Loans (continued)

Currency	Capital Raised (EUR m)	% Total
USD	225,221	68%
EUR	79,134	24%
GBP	17,783	5%
JPY	6,534	2%
CNY	3,017	1%
THB	620	0%
SAR	559	0%
NTD	132	0%
CZK	86	0%
Grand Total	**333,088**	

Bank	Deal Value	Number of Transactions
ING	44,645	131
JP Morgan	37,278	101
Citi	33,702	108
Bank of America Merrill Lynch	28,255	81
Sumitomo Mitsui Banking Corp	24,209	62
HSBC Bank PLC	22,877	74
Deutsche Bank	14,563	67
Barclays	13,748	55
Mizuho Bank Ltd	11,118	62
Credit Suisse	10,752	38

*Figures include general corporate finance for group level oil companies, but exclude funding from non-plastics oil subsidiaries

Underwriting in plastics is equally distributed between US and European banks across all instruments. USD dominates issuance in fixed income, due to oil majors counting as plastic producers. New equity's dominating financing currency is EUR, mainly due to Covestro's IPO.

Barriers To Decarbonisation

This section explores perceived barriers as identified by interview participants, relating to decarbonising EU Hard-to-abate (HTA) sectors via financing and engagement.

1 Limited awareness and understanding

'There are many lessons across teams and interests to solve these problems, such as matching activist action with investor action and academic evidence' – Academic

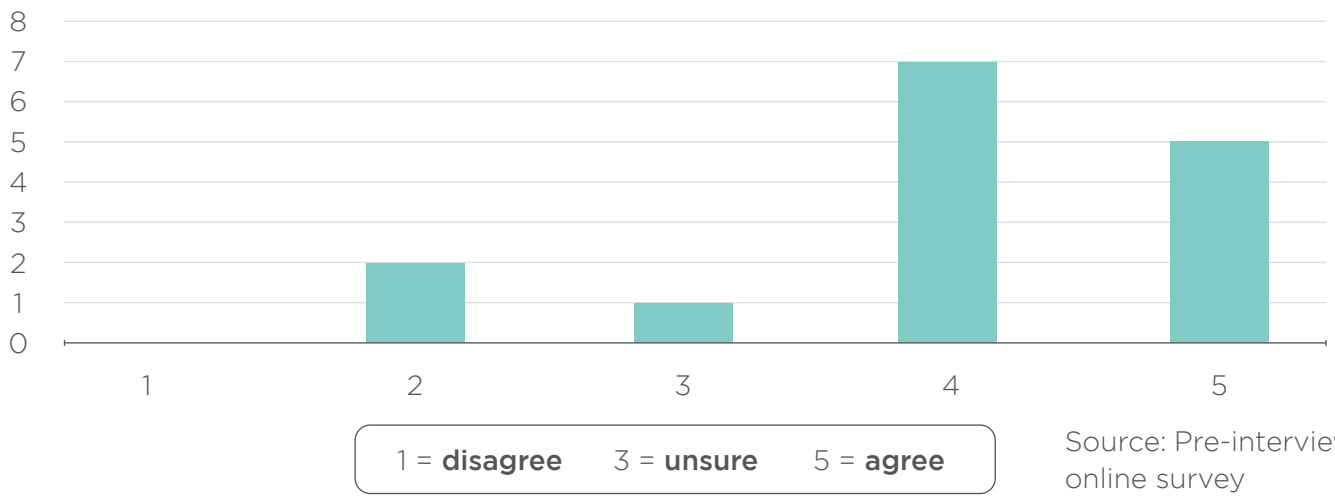
Both the survey responses and interviews revealed a significant variation in the levels understanding of this topic by different actors in the industries (investors, companies, and policymakers).

See Recommendation 1

1.1 Varying levels of awareness of hard-to-abate decarbonisation requirements

Some participants noted that in general, most equity investors do not have a view on hard-to-abate (HTA) sectors as they do for energy sector. The majority of participants agreed through the pre-interview survey (Figure 30) that financing decarbonisation of HTA sectors is more complex than for energy sectors, and that decarbonisation decisions were easier to make for the energy sector than HTA sectors.

Figure 30: Participant Survey – HTA more problematic than energy



Source: Pre-interview online survey

One participant highlighted the lack of system-level awareness from investors, which was likely a function of team set-up, but meant that the sustainability focus of many investors was thematic rather than systemic, with screening and exclusion still a heavy focus:

> *'We struggle a lot with investors who are really focused on the toxic waste theme. And then you speak to them about the importance of going into refillable, and changing the actual system structure. Not just going into a circular economy approach, but actually reducing the size of the circle. And you basically lose them and they're like, "well, why? What does a refillable station have to do with plastic waste?" That lack of system level awareness on the sustainability challenges that a lot of these companies face, I think is one thing that the (corporate banking) clients are really struggling with in terms of communicating their decarbonisation pathways (...) this follows from the way they're setting up ESG analyst teams. And even if they they're having the ultimate accountability to the portfolio manager, the way that portfolio manager is scored on her or his reporting back on their ESG integration does not really take into account the systemic challenge.'* – Debt Capital Markets

Participants highlighted that the knowledge about transition needed to be embedded with relationship managers at banks, who – unless they felt completely comfortable on the subject – would not drive the transition in the way it was needed. Even with very competent sustainable finance expert teams and significant training effort, the educational transformation required was enormous:

> *'You can train a lot without behaviour changing because it's really difficult to facilitate behaviour change through any kind of educational module.'* – Debt Capital Markets

See recommendations 2 & 3

1.2 Lack of consensus on hard-to-abate decarbonisation pathways

'These are complex issues and there is a lot of work to be done to flesh out these issues' – Finance expert

'We need to understand what a capex plan in the steel industry looks like over a longer period and judge them accordingly' – Finance expert

During interviews, participants rarely referred to concrete pathway alternatives as described in *Transition Pathways 2050.* While the problem is clear conceptionally, clarity on what to do on a sector-by-sector basis seems absent:

> *'I have the impression that for energy there is a rather clear vision forward, and many of the needed technologies/delivery mechanisms already exist today. Both are less straightforward for some hard-to-abate sectors.'* – Subject expert

Some participants also highlighted the vast differences between sectors as a challenge.

The difficulties are not limited to companies in the sector, but apply to collective initiatives as well:

> *'And then I also see that it's the chemistry sector that in general has broader problems setting climate ambitions, the Science Based Targets initiative is really struggling, the working groups there as well with setting proper targets for the chemicals industry.'* – Asset manager

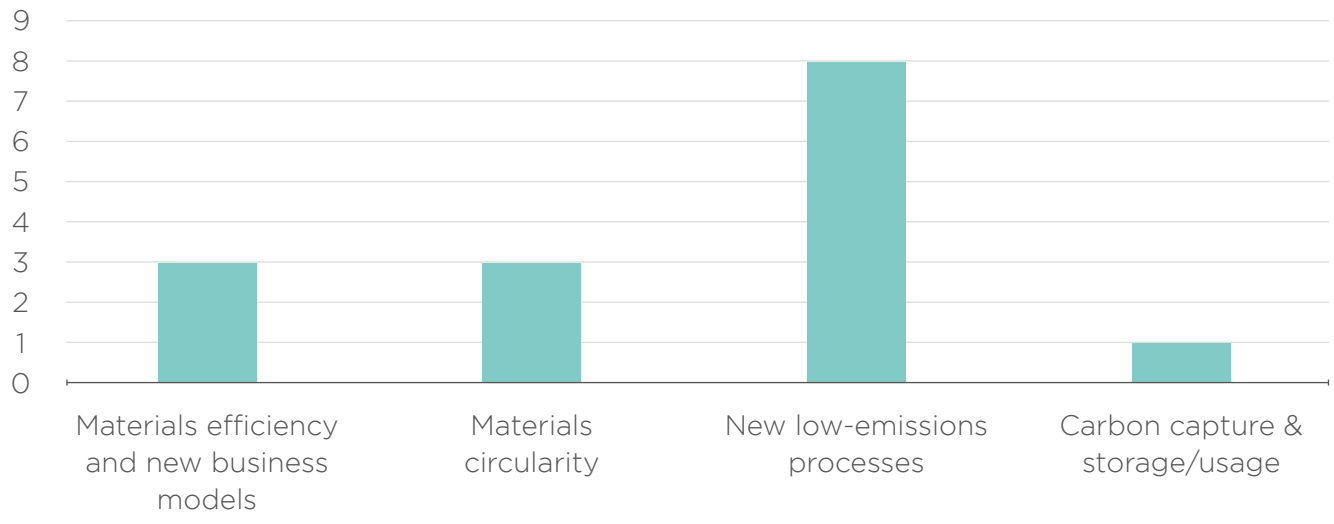
One participant noted that in the chemicals sector, technical knowledge on decarbonisation tends to be compartmentalised in R&D divisions, with a lack of awareness at higher levels of the organisation responsible for setting governance and strategy.

Some participants highlighted that to achieve decarbonisation of these sectors, some existing products and processes involved in HTA sectors would need to be phased out in line with a circularity-oriented pathway

> *'And that really comes out in the Material Economics research, what I find fascinating is what it's saying: in order to decarbonize you actually need to destroy some demand, because you can't create these products in these sectors brand new each time. You need to create more of a circular economy model. Or you need to be actually trying to reduce the level of primary output'.* – Bank

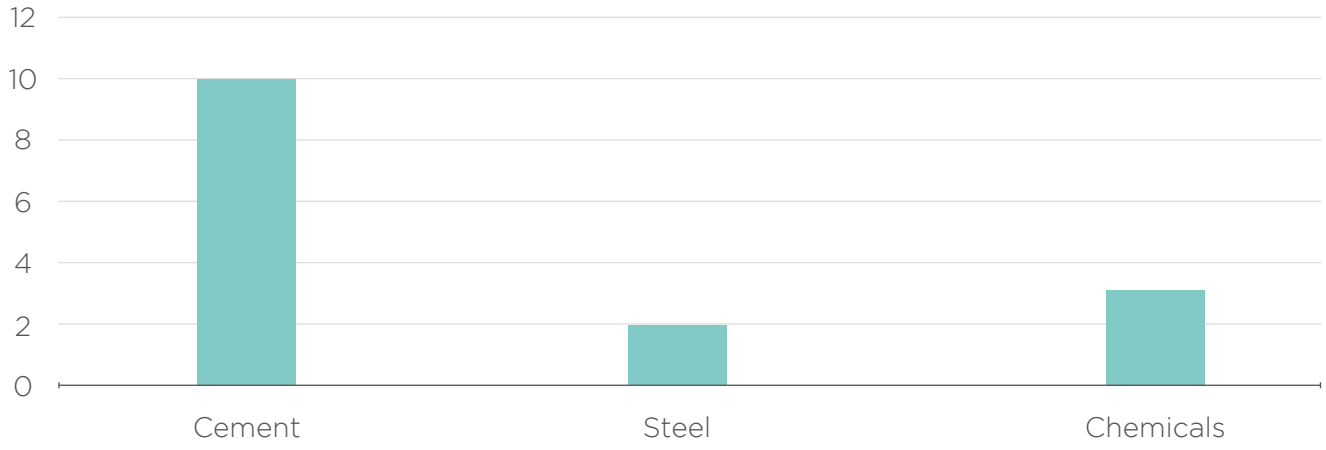
Participants (in the pre-interview survey, Figure 31 and Figure 32) were also divided on which sector and decarbonisation pathways they are prioritising in their own efforts, reflecting a lack of clear direction by investors.

Figure 31: Participant Survey – Pathway first priority



Source: Pre-interview online survey

Figure 32: Participant Survey – Sector first priority



Source: Pre-interview online survey

1.3 Necessity to value chains

As noted in the previous finding, some participants are recognising the importance of circularity in decarbonising HTA sectors and the need to focus on each actor in the value chain:

> *'Take the packaging companies. They now have science-based targets But it means that part of the innovation has to come from the chemical industry. And they are now getting a bit angry because they don't have [such targets], and they get [assigned] the responsibility from the other sectors and the other players in their value chain.'* – Asset manager

Some noted while substitutions are currently not available within certain HTA sectors, they do exist in other sectors of the value chain:

> *'While we don't have any substitutions between different types of steel or cement, substitutions could take place in other sectors [of the chain]. In the construction sector, we could start using more wood instead of cement – alternative materials that are not part of this sector.'* – Bank

See Recommendation 8

1.4 Confusing risk and impact

'None of the companies actually talk about impacts and about providing measurable results.' – Asset manager

Through ShareAction's surveys work, we believe to have found confusion about risk versus impact as one barrier to decarbonisation in any sector. As is described in *Points of no Returns*[6], investors are by now used to considering climate change from the perspective of risk to their investments. This is also how TCFD frames the issue. However, we believe that without simultaneously considering climate change from the perspective of adverse impacts on people and planet, as done by the EU's Non-Financial Reporting Directive, ambitions will fall short and global decarbonisation goals will not be achieved.

2 Particularities of financing instruments

"There is no easy answer in hard to abate sectors" – Academic

"Many outputs from these sectors are global commodities. Decarbonising their production economically whilst not making output so expensive as to be unprofitable will require specialised R&D/transition funding" – Bank

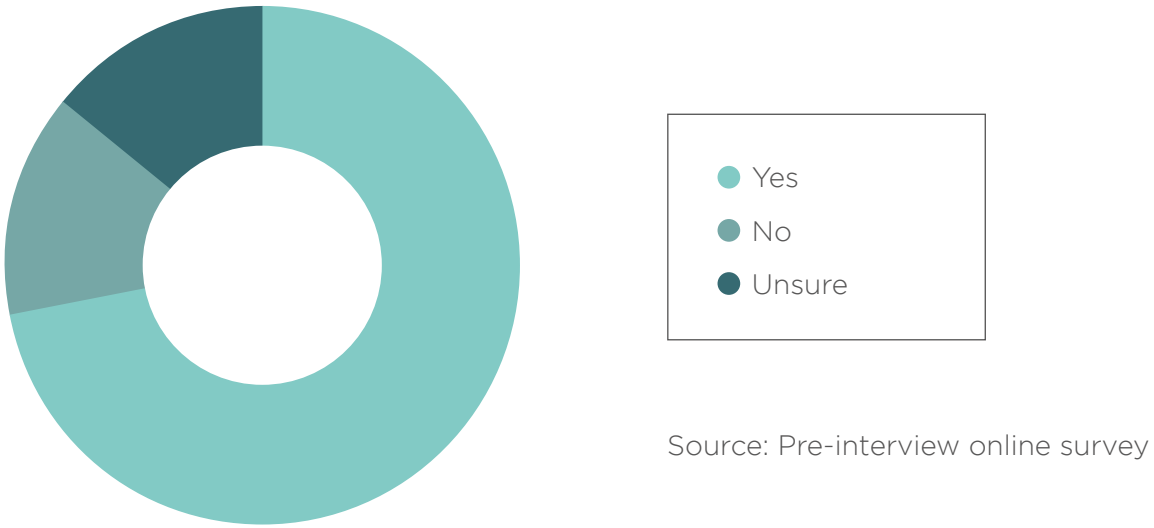
Participants shared a variety of views regarding how stronger financing for decarbonisation of HTA sectors could be achieved. We asked investors in our pre-interview survey whether they thought special forms of financing (ie, beyond traditional financing vehicles such as equity, vanilla bonds or loans) would be required (Figure 33), and most agreed they would.

2.1 Equity

Some participants noted that equity markets are mostly secondary in nature and would thus not be able to provide new financing tied to HTA decarbonisation. While our analysis shows that fresh funds raised from equity markets are significantly smaller than from bonds or loans, the amounts involved are not trivial. Also, some participants did highlight the influence equity holders can have on companies to develop decarbonisation-aligned business strategies and allocate more capital into new technologies.

6 https://shareaction.org/wp-content/uploads/2020/03/Point-of-no-Returns.pdf, p.19.

Figure 33: Participant Survey – Special form of financing



Source: Pre-interview online survey

> *'(...) as a bondholder you are truly financing the company, where with equity you're buying from the secondary market so not really financing the company... but it is true on the equity side you have more leverage.'* – Asset Owner

Some investors are engaging with equity index providers on decarbonisation. One participant discussed their engagement with a large index service provider on improving the integration of carbon risk into their products. Noting the increase of capital into passive products, the participant highlighted that this is an area that could lead to significant positive impact, especially for 'best in class' ESG index products that can help drive competition from companies in HTA sectors on decarbonisation performance for inclusion:

> *'Some of the work we've been doing has been to also get the index providers... to take carbon risk as some of the risk building process and I do understand that to some people it does sound like peanuts... but we felt if we can get these guys to move and shift their thinking that's actually one of the really big changes because it's not just the index that changes but a lot of the passive money that just follows the indices.'* – Asset owner

2.2 Fixed Income

2.2.1 Conventional corporate bonds

'The bond market has huge potential, if you're just willing to take a stand' – Asset owner

Some participants noted the remarkable potential of driving decarbonisation via debt markets:

> *'It comes down to the structure of the industry and how you finance it. It is apparent that all of the large companies and corporates rely on debt to refinance their operations. If they don't have anywhere to fundraise from, they will go to equity markets, but at the moment that part is very small and there is no bond investor that has declined yet – except divestment movement such as the Irish Sovereign Fund.'* – Academic

Since bond issuances are primary forms of finance, they present a strong opportunity to link financing with decarbonisation pathways. Some participants noted that in previous years the disclosure of issuer ESG policies and targets prior to bond issuance had significantly increased due to investor demand.

One participant pointed to the utilities sector, where a company was simply unable to raise debt financing due to climate-related concerns by investors.

> *'One utility came out to the bond market last year, a very popular utility, on everybody's books, but just recently bought another utility with a large share of coal in operations, and the... investors all said no thanks.'* – Asset owner

Some participants highlighted that investors could do a lot more to set decarbonisation-related conditions for issuers prior to purchasing new corporate bonds:

> *'On the bonds side, do not buy the bonds or always have conditional bond buying, and don't buy bonds with maturity beyond 2050 for companies that do not disclose emissions.'* – Academic

In ShareAction's view, this is evidence of the significant power that bondholders have to influence issuers' climate ambitions. Not all companies will readily react to potential buyers of new bonds pushing back, but ShareAction believes this is a vital tool to affect change, and mechanisms to do this collaboratively should be explored.

See Recommendation 6

2.2.2 Green bonds and Transition bonds

'We are looking for use of proceeds that is consistent with the Paris Agreement' – Finance expert

'The green bond market has completely failed to capture the attention of corporates of HTA sectors' – Debt Capital Markets

'What we need to concentrate on is the underlying emphasis of greening the economy rather than this kind of project finance' – Asset manager

Participants held mixed views on the role of green or transition bonds in helping drive decarbonisation of HTA sectors. One participant noted that until all debt issuers are fully transparent on their capital expenditure plans and how they relate to climate goals, green and transition bonds will be needed. Some participants noted a challenge tracking the use of proceeds by green bond issuers.

Some participants noted that they have not seen enough green bonds being issued by HTA sectors, despite investor demand. Some possible reasons for this include scaling (some companies are too small to be able to issue a green bond), reputational risk and cost concerns. Other participants said they expected strong growth in the issuance of green bonds in HTA sectors in coming years.

One participant discussed the fact that green bonds in their current format did not work for HTA sectors:

> *'There are really polarized views [among market participants] – you have a lot of participants who don't see the need for an additional label and think that what is a credible transition bond is effectively a green bond. Other participants have a view that green label is insufficient. (…) I think the EU basically has gone out with the hypothesis that everyone can issue a green bond as long as they have the right use of proceeds. Speaking to our clients [HTA companies], I would say that that they don't feel this is actually the case. They look at some precedents in the market, (including the Repsol case which we all know very well) and are saying: "The market isn't really open to me if I am not a green issuer to start with." What we need to do is create guidance and guidelines for those issuers to say: this market is open for you and investors will participate but this is what you need to first.'* – Debt Capital Markets

One participant noted how they try to ensure that green bonds/loans focus on greening the underlying organisation rather than just one part of the organisation. Another participant noted that the *Green Bond Principles* currently are not sufficient to establish the credibility of companies as issuers of green bonds, noting that they do not require a transition strategy at the issuer level. Multiple participants referred to the Repsol energy efficiency green bond, as an example of a green bond that effectively did nothing to evolve the transition strategy of the company.

Several participants suggested that a separate class of green bonds, *transition bonds* was required, distinct from green bonds:

> *'These (green) taxonomies are for those activities that are having a substantial contribution. But, of course you have many activities in the high emitting sector that don't have a substantial contribution but on other hand are doing quite a lot of good. And we can say ok these are Paris aligned, basically have two levels.'* – Development bank

One participant noted that while green bonds represented 'best-in-class' debt financing for decarbonisation, transition bonds could play a strong role in helping HTA companies evolve from 'status quo' to 'materially better':

> *'You want to applaud the activity for what it is doing and the impact it has made, and so I am supportive of the transition label, because it is showing you are material better than business as usual, but you are not in the green category just yet, because you are still in a polluting activity. (…) So if there were mechanisms in place that made those sectors as appealing to an AM, someone on the buy side, that would mean that ultimately we achieve that transition to a low carbon economy sooner.'* – Debt Capital Markets

The importance of improving the climate governance of issuers as a condition of issuing green or transition bonds was highlighted:

> *'It's very much also about stimulating the internal governance structure both of our clients, in such a way that they could put decarbonisation high on the agenda (…) making an organisation being able to issue green bonds automatically also leads to much better climate governance in these organisations because you have people responsible for the task, and that's how we see the additional value of the issuance of green bonds and that's why we at the moment are focusing quite a lot on that instrument to be implemented with our clients.'* – Development bank

Some participants held the position that decarbonisation of HTA sectors is possible without relying on green or transition labelled forms of finance. One investor noted they were more interested in focusing on underlying business strategies via traditional financing, rather than setting targets for 'green' finance instruments. One asset manager participant was concerned that the horizons weren't compatible:

> *'For a lot of the bonds, the holding periods are not that long. In the end, I think it is innovation that needs to [think much longer term].'* – Asset manager

2.2.3 Blended Finance

In our pre-interview survey, we also asked investors whether they thought governments would absorb risk for decarbonising EU HTA sectors, and most agreed they would (Figure 34).

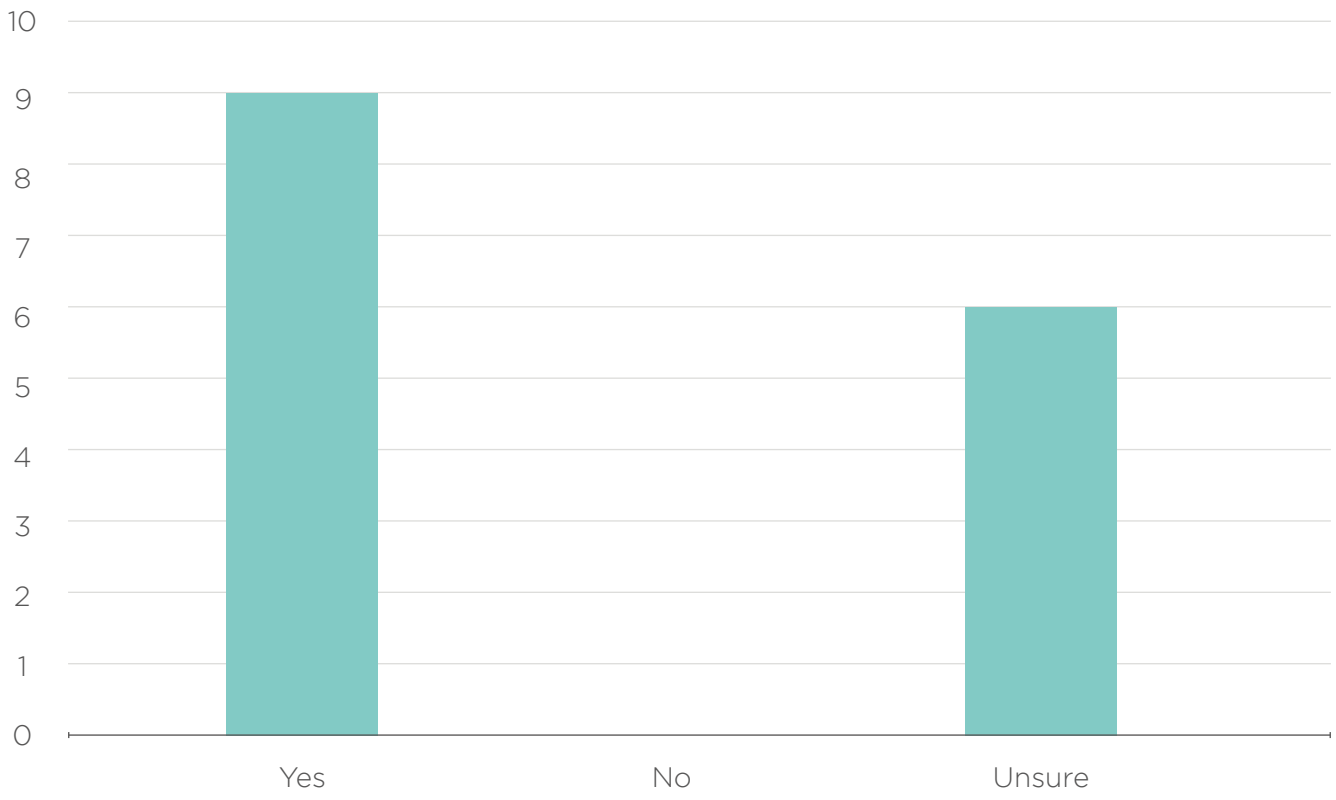
Many participants pointed to blended finance options playing a key role in financing high-risk technologies that all decarbonisation pathways for HTA sectors depend on.

Some participants noted the success of renewable energy technology from subsidies and feed-in tariffs at early development stages, and that similar support is needed for HTA sectors. One participant discussed the need to regard HTA sector decarbonisation technologies as a 'public good' that required government financial support, noting that the private sector would be unlikely to successfully develop these technologies without assistance.

Some suggestions by participants include:

- Government grants
- Co-financing with multinational development banks
- Project bonds where governments absorb first tranches of risk
- Environment impact bonds for high-risk projects where governments/development banks offer minimum guarantees
- Evolving the EU Emissions Trading System could develop a subsidy structure (via a carbon tax or carbon adjustment mechanism) to help finance innovation.
- Subsidy or tax relief for HTA companies meeting EU taxonomy green thresholds.

Figure 34: Participant Survey – government risk taking



Source: Pre-interview online survey

Notes of caution were also present: One investment management participant pointed to a lack of actual examples for HTA blended finance applications, although they did note opportunities for cooperation between investors and development banks.

Many participants – when prompted – thought that governments taking risk through first-loss pieces was a valid idea, but no participant could point to practical existing examples applicable to HTA sectors.

One participant noted that the financing options best suited to driving decarbonisation may depend on which HTA sector is in focus, noting that for steel, a blended finance option may be needed to help secure local clean energy, while for cement, financial instruments seeking energy efficiency could be most appropriate.

See Recommendation 10

2.2.4 Sustainability-linked loans

Participants identified covenants as a way to drive innovation in HTA sectors.

> *'A special form of financing can be thought of as regular financing where you have specific triggers and covenants (incentive covenants). This is a way to work as an incentive for companies to accelerate a transition.'* – Bank

Some banks noted that they are developing sustainability-linked loans for HTA sectors. One bank highlighted their development of sustainability-linked loans for the steel sector, where clients would commit to meeting environmental and social KPIs (including carbon-linked KPIs) designed to be both realistic and ambitious over a predetermined timeline.

> *'As a specific example in the steel industry (and globally in metals and mining), we are developing sustainability linked loans. These loans are normal financing structures, but on top of it we add some E&S [Environmental and Social] KPIs including CO_2 KPIs where the client commits over time to improve those KPIs. They are all environmental and social KPIs.'* – Bank

On the design of the KPIs, the same participant described:

> *'It is not only the metals and mining team, we work hand in hand with the environmental and social team to try and define KPIs which are realistic and ambitious. At the same time, it is fair to say that this is a dialogue with our client and their KPIs have to be realistic. Neither the client nor the bank decides the KPIs alone. There is a dialogue to understand strategies in the sector, and to find out what they are willing to commit to and how we can incentivise the effort through KPIs. (...) We can see some clients are happy to align their financing product with their environmental, social and climate ambition. For these clients, there is appetite to work with us to define the KPIs and their purpose is to align financing and E&S strategy together.'* – Bank

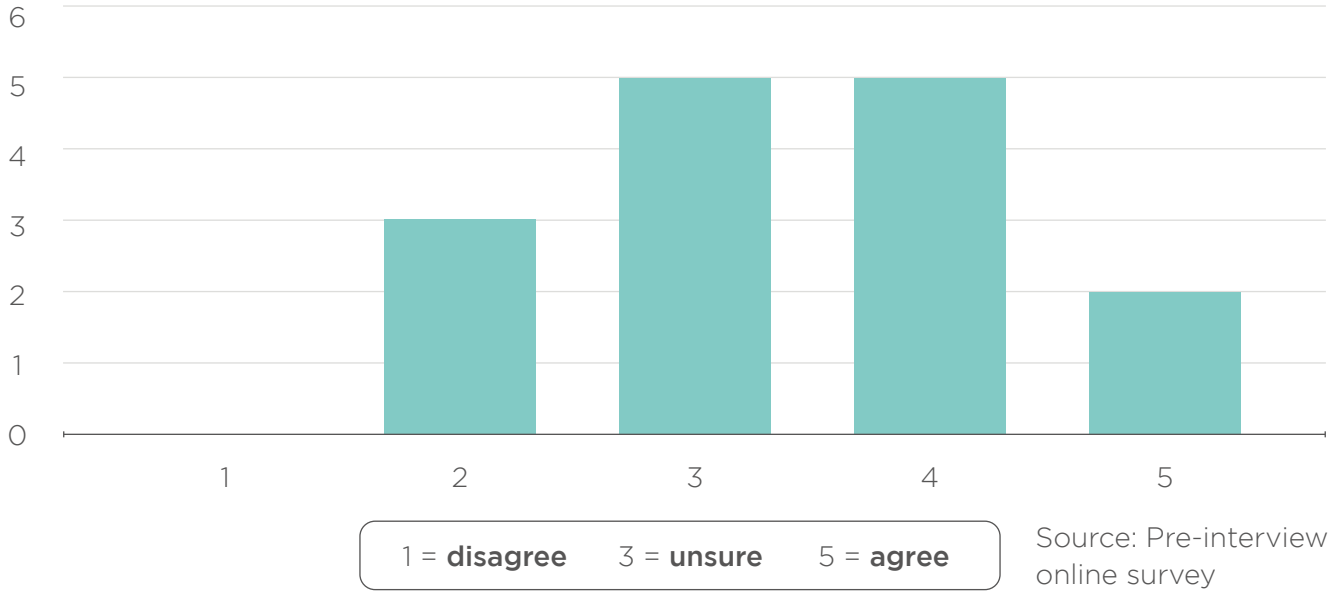
3 Risks to hard-to-abate decarbonisation

'We can't rely on small tweaks to the economics at the margin to deliver wholesale decarbonisation of these sectors, given that rests on fundamental process change' – Bank

Participants shared a variety of views about the qualities of risk facing hard-to-abate (HTA) sectors relative to other high carbon-risk sectors such as energy. As the Figure 35 indicates, not all investors agreed that EU HTA sector are subject to unique risks relative to other high-carbon sectors.

However, our interviews highlighted a range of risks that investors are considering when it comes to decarbonising EU HTA sectors.

Figure 35: Participant Survey – special risk in HTA sectors



Source: Pre-interview online survey

3.1 Low profitability and global competition

Multiple participants noted that companies in HTA sectors run on 'razor-thin' margins, which are further compressed by decarbonisation-aligned initiatives such as the ETS.

One participant noted that the development of decarbonisation-aligned technologies for HTA sectors such as CCS/U, hydrogen, and renewable gas, are not scaling fast enough.

Some participants highlighted concerns around competition.

> *'Whatever you decide to do, it has to be done consistently worldwide or you risk a competitive bias, which might come with unexpected side effects such as a region with lower requirements becoming the only place where you can produce certain commodities.'* – Bank

Some participants noted the challenge facing EU governments in driving decarbonisation in HTA sectors while avoiding shifting production outside the EU due to higher costs. Subsidies were suggested as a way to compensate for the difference of impact requirements in different regions:

> *'Government subsidies could offset the risk taking of doing more carbon-efficient steel plants through warranties and project finance to remain competitive while decarbonising the hard to abate sectors. This is quite obvious and has been done in other sectors such as energy.'* – Bank

One participant noted that in the context of cement materials, an absence of a border tax has created an uneven playing field for local companies competing against materials being imported from North Africa:

> *'We've seen in discussions with companies, they say at the moment it will be difficult to invest in new technologies. For example, in the cement industry, there is no border tax and you can easily import materials from North Africa so there is not a level playing field.'* – Asset manager

Some participants noted a difference in regional risks between cement and steel sectors, with cement operating on a localised basis and steel operating on a global basis. One noted that the globalised nature of steel would mean the sector could benefit from a green border tax.

One participant was positive on the ability of Asia to transition fast for decarbonising HTA sectors.

> *'A lot of my colleagues see Asia having the ability to leapfrog through certain polluting technologies. My Asian colleague would tell you that the rates of adoption on things like EV are much more appetizing than here in Europe.'* – Debt Capital Markets

On the other hand, it was also acknowledged that the Covid-19 crisis could have relegated the focus on sustainability in Asia to a 'nice to have'.

3.2 Lacking green credentials: low-carbon steel is still not green

Participants noted that a strong focus on 'dark green' investments by investors has taken focus away from HTA sectors, which aren't yet considered as green.

> *'We are seeing a huge amount of push from the buy-side with regards to green, and measuring the really green pieces, so investments in green buildings, renewable energy, sustainable water projects are becoming easier because the buy-side wants to see that real positive impact. But for a while because these HTA sectors don't give as much impact as the ones I just mentioned, I think they are being overlooked, and maybe that is where, from a moving-the-dial perspective, a lot more could be done.'* – Bank

Some participants noted that banks may retreat from companies in HTA sectors based on an absence of standardised acceptance on what 'green' constitutes.

> *For the hard to abate sectors, there could be a risk (that we have not observed yet) that some responsible banks may be driven away from the sectors for various reasons.* – Bank

3.3 Lack of data

Multiple participants pointed to an absence of quality decarbonisation-related data from companies in HTA sectors.

> *'We want to be sure that we apply the right decision, and for that we need the right data. You cannot compare two plants if they don't produce the same product, use the same technology, have the same power supply, etc. Scope 1 and 2 emissions depend on the power supply. (...) For the time being, when you consider the access to data, there are difficulties even for sectors that have started earlier on the transition journey. For sectors that are lagging, it is even worse.'* – Bank

> *'For steel, all of us are in the same position – missing emissions data. We have a model to help us calculate emissions intensity per tonne of steel but the model wasn't good so we have engaged a couple of data providers to get more data and realise this evaluation.'* – Bank

3.4 Risk aversion as a risk in itself

Some participants noted that investors' unwillingness to take on risk in their investments is holding back deeper involvement in HTA sectors:

> *'You see already if you look at the private sector, it is quite risk averse so moving out of those sectors, also because they're not very, if you look at steel and refinery sector, margins are already very thin even before COVID, these are already sectors reluctance from private sector to invest in those sectors (…).'* – Development bank

One participant noted that cement and steel sectors could be subject to 'stranded asset' risks due to a substitution effect. An example of the construction sector was given, where cement could be replaced by wood. This could render costly innovation obsolete.

Financing Relationships

This section explores how different EU financial sector stakeholders are engaging with companies in hard-to-abate (HTA) sectors on decarbonisation.

1 Engagement by asset owner and asset managers

'We probably should be focusing more on these sectors from a collective stewardship perspective than we do' – Asset manager

'Engagement, I believe, is still in its infancy' – Asset owner

A key theme emerging from the interviews pointed to the potential investors hold to drive decarbonisation of companies in HTA sectors through their company engagement activities. The interviews highlighted that not all investors are engaging directly with HTA sectors on their associated decarbonisation risks and opportunities. However, those participants not engaging on HTA sectors noted they are engaging on other high-risk sectors such as utilities, transport, agriculture, and financial services.

See Recommendation 5

1.1 Many engagement efforts on hard-to-abate sectors lack escalation

'We believe boards should be free to set their own strategies and account for them' – Asset manager

A key theme emerging from responses around company engagement in hard-to-abate (HTA) sectors by investors is that many of these activities lack pressure, and put a lot of faith in boards to facilitate decarbonisation on their own terms. One participant acknowledged that their engagement "doesn't have teeth yet".

However, there are notable exceptions, as one participant noted:

> *'With regards to financing the transition, it's more about us informing them 'this is important for us, you've got to address this issue, and if you don't address this issue (...) you won't be a long-term investment for us (...).'* – Asset owner

Another participant observed:

> *'When we engage with companies in these sectors, we look at what targets are in place for emissions reduction, what is the pathway, and what initiatives they are working on in order to achieve these goals.'* – Asset manager

1.2 Shareholder resolutions is considered as a next stage in escalation for HTA sectors

'The process leading to filing the proposal and then the dialogue with both the filers and other interested stakeholders after the filing and before the vote can be very productive in achieving change' – Asset manager

'Our voting efforts really enhance our engagement efforts' – Asset Manager

One participant noted that the topic of climate already features in their voting policy, which guides their voting decisions not only for voting in favour of climate-related resolutions, but also voting against traditional resolutions (such as directors, accounts, or financial statements) when progress on climate-related issues is not sufficient.

Another participant highlighted that they expect shareholder resolutions to become a key escalation point for HTA sectors since:

> *'That really puts the pressure on companies because it is so public and so open that then the companies have no choice but to respond to the requirements'* – Asset owner

Some participants questioned how far voting could be stretched, with one noting that

> *'When you look at the benchmark most of the economy is misaligned, what do you do? Do you vote against everything and what does that make you as an investor... an irrational actor or kind of a true pioneer?'* – Asset manager

See Recommendation 9

1.3 Some investors see potential in stronger engagement on corporate bonds

'Credit markets need to agree on [decarbonisation] timelines, and normalisation of those timeline' – Asset manager

'The most impactful thing would be something that deals with debt markets, to understand how to get investors behind the debt market movement' - Academic

Some participants noted the potential for stronger engagement by corporate bond investors. One participant noted that engagement could be more similar to banks, some of which require cement manufacturing companies, for example, to set forward-looking decarbonisation targets prior to issuing loans. Another participant noted that the timing of fixed income engagement allowed for stronger engagement prior to debt issuance, which could be used as an opportunity to encourage better climate-related disclosure or setting out business transition strategies.

> *'I think it's also often overlooked, despite the enormous size of fixed income instruments. (...) I would really welcome such initiatives.'* – Asset manager

See Recommendation 5 & 6

1.4 Investors are engaging across a range of climate-related topics

'We're going to reach the point where recycled steel will meet the amount of demand there is for steel in the world and we won't need to use blast furnaces, or at least not very much' – Asset manager

'Everyone really thinks in their own processes, and their own product lines and their own facilities' – Asset manager

Responses from participants in interviews highlighted significant variation in engagement topics focused on by investors.

The most common decarbonisation topics highlighted by participants relating to company engagement in HTA sectors include disclosure aligned with the recommendations by the *Task Force on Climate-related Financial Disclosures* (TCFD) and setting targets in line with the *Science Based*

Targets initiative (SBTi). Such approaches tended to encourage disclosure first, and setting climate targets as a next step.

Some investors are starting to focus on circularity and value chain in their company engagement efforts. One participant noted that encouraging companies to implement TCFD-aligned disclosure or setting SBTs in their value chains can lead to having a magnified impact throughout the sector. One participant suggested the idea of using investor engagement as an opportunity to encourage companies reliant on HTA sectors to prioritise low-carbon alternatives in their procurement, e.g. asking a property development company to procure low-carbon cement.

1.5 Some investors are starting to prioritise corporate lobbying

'The more investors make themselves heard, the more they have an impact' – Asset Manager

'Government has a role in making its funding rounds conditional, the government should act as a big investor but we are yet to see that mainly due to lobbying' – Academic

'If your lobbying activities are anti-climate, investors should be aware of that and use the stick more forcefully' – Academic

Participants observed that engagement needed to happen on trade association and lobby group memberships, as these groups are seen to be a block to the transition, particularly in Europe, and a gap is starting to appear between companies' corporate transition targets and the action of lobby organisations they are members of. Investor pressure was seen by many participants as an efficient tool to change that:

> *'It is since the end of 2018 that trade associations appear as a topic on the agenda (...) We've escalated this to their AGM and actually filed a number of shareholder proposals on this topic.' – Asset manager*

One participant noted how some EU HTA companies are lobbying for carbon cost schemes to maintain carbon credits for companies whilst also introducing a new carbon border tax, which would effectively result in double compensation. The participant noted that this remained an ongoing priority topic in their engagement activity, as a double compensation structure would dis-incentivise decarbonisation efforts.

See Recommendation 8

1.6 Collaborative approaches

'We are part of CA100+ and there is a clear focus on the carbon-intensive sectors, amongst which these heavy industries sit' – Asset manager

'C100+ is strong in automotives and O&G, but not in chemicals' – Asset manager

Most of the participants involved in company engagement on decarbonisation cited involvement with a collaborative initiative like *Climate Action 100+.* Participants shared mixed views around the efficacy of *Climate Action 100+* in relation to progress made by HTA sectors on decarbonisation. One participant noted they were unsure if the initiative had been successful, and highlighted that the initiative is meant to be completed in two years, and it currently remains uncertain what the future of the initiative holds.

Other participants were more optimistic about the initiative, one noting that they had seen "a big change from energy companies", and that since their own engagement resources were limited that it remained a valuable initiative.

Participants also referenced other collaborative initiatives, such as the expectations for HTA sectors promoted by the *Institutional Investor Group on Climate Change* (IIGCC), or *Transition Pathway Initiative* (TPI), as valuable initiatives that supported climate-related company engagement efforts by investors.

One participant questioned the effectiveness of large initiatives:

> *'On the one hand, you want a lot of investors together because that's how you make a statement to the company and that's what gets you around the table. But then on the other hand, you also really want the conversation to be really high quality, you really want your members to be committed. Having that balance will always be tough. Sometimes it's easier to actually have a small group of investors, because it's just more efficient and often of higher quality.'* – Asset manager

1.7 Not enough investor engagement with hard-to-abate companies

'The lack of clarity around investor expectations is one big deterrent for our clients' – Bank

Some participants noted concern that while a handful of progressive investors are prioritising decarbonisation in their engagement with companies in hard-to-abate (HTA) sectors, the majority of investors remain unaware of these risks and opportunities.

Another participant noted that while investors may be aware of the emissions profile in a company of a HTA sector, they may not understand the systemic implications of different decarbonisation pathways.

1.8 Not enough investor engagement with banks on decarbonising hard-to-abate sectors

'At the moment we don't see enough on how investors can influence equity vs debt and put pressure on the investment banks who provide these syndicated loans, which they do in huge amount, and should be conditional on energy efficiency performance' – Academic

'Companies always have an escape route to investment banks, and investors should monitor the investment banks' – Academic

Some participants pointed to the majority of financing of hard-to-abate (HTA) sectors coming from banks via syndicated loans:

> *'70% of companies fund through syndicated loans, with a bit of bonds and equity.'* – Academic

This is supported by our financing flow analysis for steel and cement. Despite the importance of syndicated loans, most investors are yet to engage with banks on their decarbonising efforts. One bank noted that their investors had shown more interest in decarbonisation-related topics such as the transition from coal to other energy sources than topics related to HTA sectors, pointing to a lack of investor awareness.

See Recommendation 4

1.9 Conflicts of interest between different asset classes can muddy engagement

'(We) lack understanding of the different asset classes through which you can make a difference, and how to use them strategically.' – Academic

In this context, another participant made a very clear point about the potential conflict of interest between bond and equity holders.

> *'Especially in these sectors, it's it happens quite a lot that our equity analyst has different interests than our fixed income investors.'* – Asset manager

With bondholders focussed on the mitigation of financial downsides, the case for investment in new technology is less clear cut then for equity investors. It is particularly true for the risk of deteriorating credit quality in situations where corporate entities are restructured in the face of innovation and corporate debt obligations move with less attractive assets.

This is a point which is very rarely addressed when stewardship topics are discussed. As matter of fact, the widespread narrative is that when it comes to good stewardship, the interests of different stakeholders in the capital structure are aligned. ShareAction disagrees with this notion and believes that stewardship needs to evolve to explicitly acknowledge, account for and manage conflicts of interest between asset classes.

See Recommendation 6

2 Client Relationships in banking

'It is in everyone's interest that the international financing organisations are not driven away, because we have a part to play in financing these sectors, even if it is true today that they have a carbon impact' - Bank

'We actually have a role to help them transition' – Bank

Responses from banks highlighted a key challenge banks face in ensuring that client relationship staff in HTA sectors are sufficiently educated on decarbonisation risks and opportunities.

2.1 Knowledge gap between sustainability teams and client-facing staff

As already discussed in SECTION ONE - 1.1, it was noted that with thousands of client-facing staff, it remains an enormous challenge to ensure that they receive sufficient training on how to engage with clients in HTA sectors on complex decarbonisation pathways. While sustainability teams often receive robust training on these topics, filtering this knowledge to client-facing staff presents a formidable challenge.

See Recommendation 3

2.2 Banks are starting to collaborate around hard-to-abate sectors

'What we're working on is what metric would be the right one' – Bank

Some banks interviewed noted their participation in the *Principles for Responsible Banking* initiative, and pointed to the formation of a series of working groups in late 2020 that will include hard-to-abate (HTA) sectors. One bank noted that they are already disclosing their loan book alignment with the Paris Agreement for cement.

One banking participant described their cooperation with other banks:

> *'We are doing it with a group of 5 other international banks to pool our expertise. The issue we are facing is the quality of the data available to realise this measurement. Otherwise, yes we are certainly doing this'.* – Bank

Others were critical:

> *'This is a space where we cannot be waiting for the industry to set all of the solutions. Even if that happens, it will take some time, and we cannot be waiting for that to happen.'* – Bank

Another participant noted the *Bank of England* climate stress test for 2021 will require large UK banks to collaborate in many ways around climate risk.

2.3 Banks are starting to turn their attention to value chains

One participant noted that the mind-set of banks for the challenges of decarbonising hard-to-abate sectors will require to look across the value chain, rather than considering individual clients, and that banks could play a stronger role in bringing the value chains together around decarbonisation pathways:

> *'You need to look across the value chain, rather than just looking at a particular client, or a particular sub sector banks have this quite unique role to play bringing the value chains together.'* – Bank

2.4 Banking clients are willing to discuss decarbonisation

Some banks noted the willingness of clients in HTA sectors to begin engaging more deeply on decarbonisation.

> *'All of us know that being aligned is not going to happen in day one. If you can take that exam question statement, which is "measure, manage, and ultimately reduce our emissions" – we're kind of halfway through the measurement phase, and getting into the management conversations with clients.'* – Bank

Nevertheless, clients were willing to cooperate:

> *'We are continuing to engage and I don't think our clients are in any way unwilling to have that conversation with us.'* – Bank

2.5 Relationships with other stakeholders

Many participants agreed that stronger cooperation across stakeholder groups on decarbonising HTA sectors would be of strong value.

> *'Now, we've obviously got direct influence over some sectors of the economy, given what we do, in terms of lending, but it's all of us coming together that's really going to move the needle: banks disclosing information so investors can follow it; NGOs or civil society organizations raising issues to us and to keeping the pressure on banks to continue to focus on these issues; the TEG clearly, going from a dark green taxonomy to potentially a more shaded taxonomy over time introducing social issues. It's a combination.'* – Bank

3 Investors engaging with policymakers

Our interviews highlighted that active engagement by financial stakeholders with policymakers in Europe remains at early stages, with some noting the need for stronger and more coordinated dialogues:

> *'I say to a lot of investors need you to help convince governments, local and national, about what they can do to create deals that you want to invest in, that are green.'* – Finance expert

> *'There's definitely more investors can do to try influence the policymakers as well... we are a member of various groups... maybe we should be more active in some of the working groups.'* – Asset Owner

See Recommendation 9

The Role Of Government

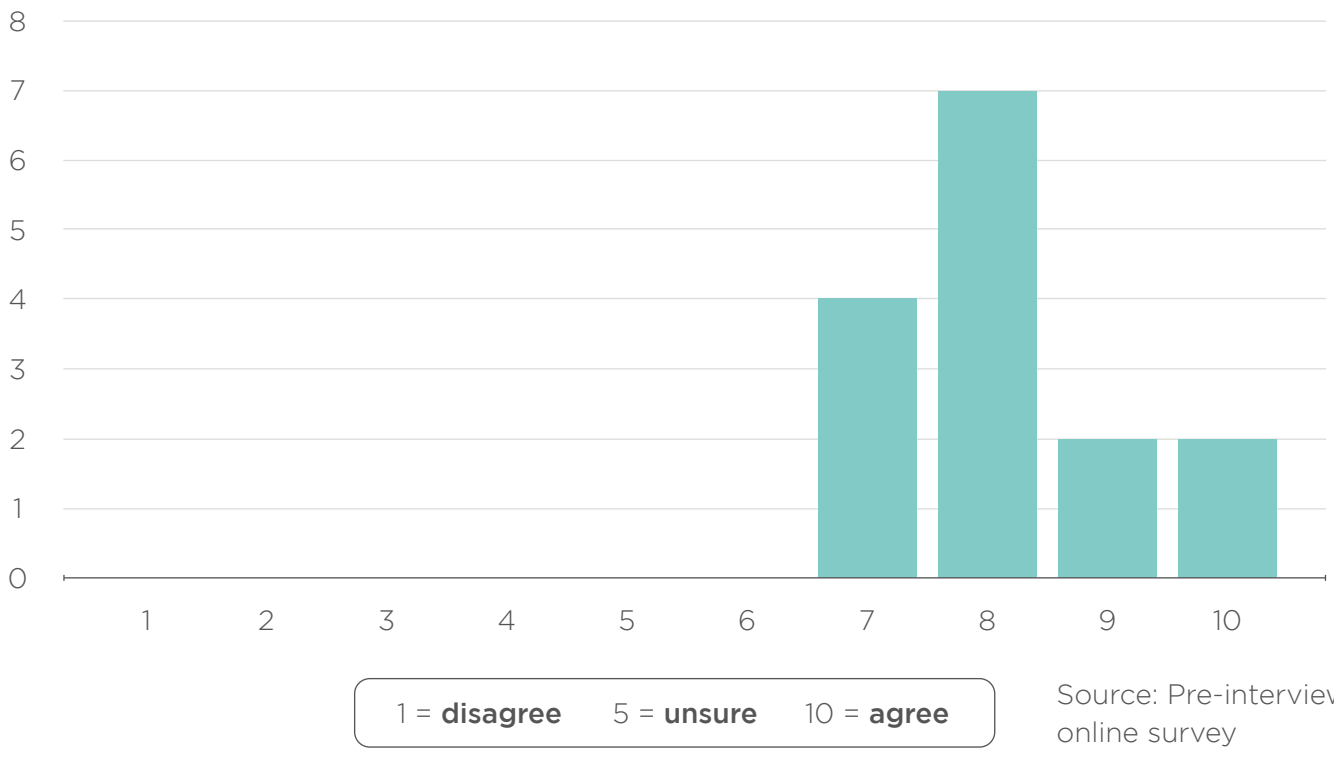
'Governments will need to absorb some risk, particularly technology risk, because that technology risk leads to credit risks for private finance institutions and they may be less willing to absorb that' – Bank

'Investors should teach governments about what they can do' – Finance expert

Participants were almost unanimous on the need for government to play a leading role in driving decarbonisation of HTA sectors, though some were sceptical of their ability or willingness to do so. This section explores the areas of potential government involvement

See Recommendation 10

Figure 36: Participant Survey – governments leading



Source: Pre-interview online survey

1 Setting an effective carbon price

'At the very minimum the carbon price needs to be EUR100 a tonne, but if we want to shift our economies fast it will have to be at least EUR600 a tonne' - Finance expert

Many participants highlighted the need for a stronger carbon price and a cap and trade programme with one noting that successful implementation "could move mountains".

2 Introducing subsidies and penalties

Some participants noted that regulators could incentive decarbonisation efforts by companies in HTA sectors by rewarding alignment with the EU taxonomy with subsidies or tax incentives and punishing poor decarbonisation performance with a brown penalising factor (for example, where new coal plants have been commissioned). One participant mentioned prudential bank regulation and the use of brown penalizing factors as a potentially helpful mechanism. In the context of HTA sectors, this could mean exemptions from such capital charges.

Many participants agreed governments could do more to subsidise the development of decarbonisation technologies.

> *'The feedback from a lot of our clients (is) that these technologies aren't really commercially viable yet, so the government has a clear place for the government can play a role and absorb risk by subsidizing technologies, you have a clear example here in the UK with CCS. (...) When I look at the decarbonisation pathways for aviation or shipping, there is a huge part for innovation to get to net neutral, and in my mind this has to be a public good, or at least partially a public good, it can't be private, or it will be hugely delayed. It is a Commons problem, so unless you have government to absorb part of the risk, you are just asking a few companies to take it on for the benefit of the others who are allowed to continue to pollute and continue with their current business model.'* - Bank

Some investors noted the current wave of government financial support for companies due to the COVID-19 pandemic and the opportunity to incorporate requirements to prioritise decarbonisation.

Participants thought that smaller companies might benefit from assistance when using green bonds to refinance. This was also a suggestion in the recent EU green bond standard consultation.[7]

7 https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf

3 Facilitating demand for low carbon hard-to-abate products

Some participants noted building standards were thought to hinder the application of new materials, which made the focus on Material Efficiency difficult:

> *'You really see the industry struggling on one hand being pushed to introduce energy efficiency measures, and go to the limit, and on other hand see there is not enough flexibility to change building standards in such a way that you can use alternative binders that have a less significant CO2 footprint, so really the government should play such an important role here.'*
> – Development Bank

4 Bridging silos

Some participants also noted the potential for government to help bring stakeholders together around decarbonising HTA sectors:

> *So everyone really thinks in their own processes and their own their own product lines and their own facilities and what can happen from there. And to me, the government is really uniquely positioned to at least break some kind of this side of thinking and bear more collaboration. And I think investors can do that as well.* - Asset manager

5 Supporting a just transition

Some participants highlighted that decarbonising HTA sectors will involve phasing out certain activities, which would hurt employment:

> *'I don't say governments should invest in those projects but should really mitigate negative impacts of closure, so would be more easy for whatever company to close those installations, without having the problems of other impacts on the local communities'.* – Development bank

6 Providing pathway clarity

Some investors highlighted that they would like to see governments providing clarity around which decarbonisation pathways they would like HTA sectors to take.

7 EU Taxonomy

Participants held contrasting views about the role of the EU taxonomy in driving decarbonisation of HTA sectors.

7.1 Investors in early stages of using the EU Taxonomy

Many participants admitted that while they support the development of the EU Taxonomy, they remain in very early stages of incorporating the technical requirements into financing and engagement practices.

One investor noted the taxonomy has created value in developing a 'shared language' around sustainability that will be useful for company engagement in HTA sectors. One bank noted they have already mapped their steel exposure against the taxonomy.

> *'I think it is very helpful first move in terms of regulation in this area, we have looked at steel and mapped out across the steel making process what is in line with the EU taxonomy and those considerations on a sectoral basis are helpful to set down a benchmark.'* - Bank

Some participants noted that EU policy will require investors to report on portfolio alignment against the EU Taxonomy in the coming years, and therefore expect significant progress over time.

One participant noted that the primary audience of the EU taxonomy is investors, not companies, which means that investors will have to engage closely with companies to encourage taxonomy-aligned disclosure.

> *'(The EU) have done something I think is very smart, which is that the first line of implementation for the taxonomy is actually not going to be issuers at all, it's going to be investors and that have to start reporting on the application of the taxonomy to any financial products marketed in Europe.(...) the mechanism here is that investors are going to be asking you for that information and therefore issuers will start to gather and collate it in order to be able to provide that back to end investors. (...) And so what we're trying to tell our clients now, you have to be ready and not just about your green bonds, but about all of your capital expenditures and your revenues. (...) And no one really understands the urgency of that or how much work it is, and so you can kind of see down the road, sometime around June of next year, that we're headed toward a bit of a disaster where investors really don't have the information that they need.'* – Debt Capital Markets

One bank noted that the European Banking has established a working group of up to 25 banks exploring how the taxonomy could be applied to a range of banking products, though was unsure to what extent this work would capture HTA sectors.

Concerns were also shared regarding application of the taxonomy:

> *'I'd like to add a comment on our portfolio exposure to the hard to abate sectors in the context of the EU taxonomy. I think this indicator would be tricky, because the risk is that the situation is perceived as binary. Exposure = not good. No exposure = good. Whereas in this sector, because there is no substitution, we need to understand the nature of our exposure to this sector and the way we are engaging with our clients. (…) There is no substitution for steel. You need banks to finance steel and then as a consequence we will have exposure to the sector, because we are fulfilling our mission as a society. It is more important to ask how we work with the sector and how much we contribute to the decarbonisation of the sector, as opposed to what is our exposure.'* – Bank

One participant noted that the taxonomy is only helpful for the asset class of green bonds, where there is a clear use of proceeds. For other asset classes such as equity or vanilla corporate bonds, which are not tied to specific activities, there remains a challenge to match against the taxonomy.

7.2 Concerns about deflecting attention from hard-to-abate and sending mixed messages

'It is more important to ask how we work with the sector and how much we contribute to the decarbonisation of the sector, as opposed to 'what is our exposure' – Bank

One participant highlighted concern over the taxonomy's focus on defining 'green' activities could lead to over-investment in aligned companies, thereby risking limiting engagement potential in companies yet to achieve alignment.

Another participant raised a similar concern that the taxonomy risks creating a situation of 'binary thinking' around hard-to-abate (HTA) sectors and decarbonisation in terms of exposure vs non-exposure, which could distract from the need to generally better understand and engage with sectors such as steel, where no substitution is available.

One participant highlighted that definitions of biofuel differ significantly between the EU taxonomy and the most recent renewable energy directive, resulting in confusion from both companies and investors over what is considered an acceptable standard.

Recommendations

Based on an analysis of the key findings identified in this study, ShareAction has the following recommendations for investors and banks.

1 Promote deeper awareness of decarbonisation pathways

Based on the findings of this study, the majority of banks, asset owners, and asset managers still only have a surface-level understanding of decarbonisation pathways for hard-to-abate (HTA) sectors, and often lack systems-level awareness.

Even some investors who have made net-zero commitments admitted to being at very early stages of considering how to decarbonise HTA sectors.

The market analysis provided in SECTION ONE could be used strategically to help EU investors understand which companies would be most impactful to engage on decarbonisation (e.g., those with highest share of production capacity, or those with the highest EU shareholder base). Investors serious about decarbonising their portfolios need to understand why decarbonising these sectors is critical, as well as affirming the role of investors in achieving this outcome.

Finally, developing and demonstrating systemic, rather than thematic, thought leadership on sustainability would be a fruitful strategic direction for investors and banks.

2 Promote stronger climate governance at companies in HTA sectors

Some participants are attempting to drive decarbonisation of companies in HTA sectors by focusing on improving climate governance at HTA compan. This is a productive strategy that others in the investment and banking sector should get involved in.

Tying stronger climate governance requirements to the issuance of green or transition bonds could help project finance also translate into stronger company-wide transition strategies.

3 Promote stronger training of bank client relationship managers on HTA decarbonisation

Some banks observed that while sustainability teams are aware of decarbonisation pathways for HTA sectors, it remains a challenge translating this knowledge to client relationship managers, who are best positioned to promote aligned financing solutions for these sectors.

4 Engage with banks on how they are financing HTA sectors

Some banks reported that their own investors are yet to apply pressure on how they are driving decarbonisation of HTA sectors. By encouraging asset owners and asset managers to begin engaging more assertively with banks on this topic, banks will be incentivised to take stronger action.

One participant noted that, for example, if CA100+ investors were to vote against directors at banks on grounds of climate, "this could be very impactful".

Investors who are yet to engage with banks on climate issues need to start doing so. Investors already engaging with banks on fossil-fuel lending should broaden their focus to also capture decarbonisation of HTA sectors.

5 Promote stronger investor engagement in fixed income

A major theme emerging in this study is the untapped potential of debt markets for helping to drive decarbonisation of HTA sectors. Multiple participants highlighted that by setting decarbonisation-related requirements for debt issuance (whether related to disclosure, or evolving company-wide strategies or targets), companies would be incentivised to prioritise decarbonisation.
Investors should start to more assertively leveraging their influence as providers of corporate debt, and linking this to decarbonising HTA sectors. Following a scoping project on bondholder engagement, ShareAction is planning to start a workstream on bondholders that goes beyond what is currently considered 'engagement' by investors.[8]

6 Explore tensions in engagement across asset classes

While some participants noted that their approach to engagement on decarbonisation does not differ between equity and listed debt, other responses revealed key differences in interests between these approaches that deserve further exploration. (see SECTION THREE - 1.9). ShareAction believes that the lack of debate on conflicts of interest between asset classes is a barrier to proper stewardship by institutional investors and needs more research. The lack of fit-for-purpose engagement by investors on climate-related topics warrants a stronger awareness of how the differing interests between these asset classes are prohibiting more impactful engagement.
This would also benefit the currently underdeveloped area of bondholder engagement (Recommendation 6).

8 https://shareaction.org/wp-content/uploads/2019/01/Sleeping-Giants.pdf

7 Challenge mainstream index providers on their integration of climate risk

The huge potential of aligning passive index providers with decarbonisation came up during interviews, noting the enormous amounts of assets that passive funds which are based on those indices continue to attract. Investors and other stakeholders should seek a dialogue with passive index providers.

Investors should engage more systematically with passive index provers and advocate for more robust climate-risk integration.

8 Investors should include climate-aligned lobbying and circularity in engagements

Our analysis found that participants with more sophisticated approaches to decarbonising companies in HTA sectors are prioritising corporate lobbying practices, particularly via trade associations. Investors should reconsider to what degree they consider corporate lobbying in their own engagement relationships.

One key recommendation that emerged was for asset owners and managers to explore their equity portfolios to identify companies with the greatest lobbying power, and use their influence to encourage these companies to use this lobbying power in favour of climate-friendly policies for HTA sectors.

To legitimately decarbonise HTA sectors, companies must transition towards sector value chains that are more circular in nature. Investors and banks can encourage companies to consider their place in the value chain, and promote systems-level awareness by prioritising this as a theme in their engagement relationships. Investors already engaging with HTA sectors on *TCFD*-aligned disclosure or on setting Science-Based Targets should also consider the following elements:

- Corporate lobbying practices via trade association memberships.
- Strategically identify companies in portfolios with the greatest political lobbying power, and advocate for these companies to lobby in favour of climate-supportive policies.
- The role of companies, and their products, within wider value chains and promote circularity in business models and underlying products.

9 Encourage investors and banks to engage directly and more assertively with policymakers

While all participants advocated for governments to take a leading role in helping decarbonise HTA sectors, some admitted that more could be done by investors to lobby government to take stronger action.

Based on the key findings of this study, banks and investors could lobby policymakers on the following topics

- Setting higher carbon prices
- Setting stronger listing disclosure requirements
- Penalising 'brown' activities
- Providing certainty around decarbonisation pathways for HTA sectors
- Government grants
- Co-financing with development banks (like the European Investment Bank)
- Project bonds where governments absorb first tranches of risk
- Environment impact bonds for high-risk projects where governments/development banks offer minimum guarantees
- Evolving the EU Emissions Trading System (ETS) could develop a subsidy structure (via a carbon tax or carbon adjustment mechanism) to help finance innovation.
- Subsidy or tax relief for HTA companies meeting EU taxonomy green thresholds.
- Evolving industry standards (such as building or construction) to promote decarbonisation of HTA sectors

10 Support development of cross-cutting collaboration on HTA sectors

Many participants noted the value and importance of collaborating with peers and stakeholders around decarbonising HTA sectors.

Investors are already collaborating on decarbonisation via initiatives such as *Climate Action 100+* and the *Net Zero Asset Owner Alliance* (NZAO) while banks are collaborating via *the Principles for Responsible Banking*. Yet it was noted that not all participants of these initiatives are strategically focusing on HTA sectors. A next step could be to consider how these collaborative initiatives could more strategically focus on decarbonising HTA sectors, or if a new collaboration is required. Some participants suggested a new coalition, bringing together policy makers, investors, companies, banks, and academics around this topic could be beneficial.

Conclusion

This scoping study reveals that EU financial stakeholders remain at early stages of financing and engaging with HTA sectors on decarbonisation, which does not come as a great surprise.

While many investors recognise and agree that these sectors will need to decarbonise, they often lack both a clear unified vision and deeper understanding of various decarbonisation pathways currently available. It is clear that further education of pathways, as well as the systemic implications of decarbonisation across value chains, would be of enormous value.

Compartmentalisation of knowledge around decarbonisation exists at both the company level within HTA sectors, often relegated to R&D divisions, and within banks and institutional investors where expertise sits commonly within sustainability teams and not at the client relationship or portfolio construction level. Further work focusing on extending this expertise across these organisations would surely go a long way in remedying this 'silo' effect.

Many of the participants interviewed acknowledged the untapped potential of debt markets, where much more could be done to attach conditions to the issuance of corporate debt (whether vanilla, green or transition) tied to decarbonisation. Requiring stronger governance from issuers was frequently recognised as one of the most impactful ways to connect financing with company-wide decarbonisation strategies.

Most participants recognised the enormous role of policymakers in helping create market environments friendly to the development of technology and innovation required for decarbonising HTA sectors, however acknowledged that their own engagement with policymakers could be dramatically improved.

While some investors are engaging purposefully with companies in HTA sectors around TCFD-aligned disclosure and setting Science Based Targets (with even fewer targeting corporate lobbying and taking a value-chain wide perspective), sadly the majority of investors are yet to focus on these sectors, while engagement with the energy sector is far more common. Interestingly, only very few investors are strategically engaging with banks, responsible for 70% of financing for companies in HTA sectors, another key opportunity for further action.

Our financial analysis of the steel, cement and chemicals sector found that some of these sectors in the EU are dominated by a handful of companies, which could represent a key focus area for more targeted engagement by EU investors. Furthermore, our analysis highlights which companies in these sectors contain the strongest EU-level ownership, another key area for potential further action. While this research highlighted some promising collective efforts, some by banks and others by investors, we are yet to see a cross-cutting initiative bringing academics, banks, investors, policymakers, companies, and civil society together around this critical topic. Such an initiative could also help achieve a more unified vision on sectors would be most impactful, something clearly lacking as we find investors prioritising different sectors and pathways in their efforts to date.

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About ShareAction

ShareAction is a campaigning organisation pushing the global investment system to take responsibility for its impacts on people and planet, and use its power to create a green, fair, and healthy society.

We want a future where all finance powers social progress. For 15 years, ShareAction has driven responsibility into the heart of mainstream investment through research, campaigning, policy advocacy and public mobilisation. Using our tools and expertise, we influence major investors and the companies they invest in to improve labour standards, tackle the climate crisis and address inequality and public health issues.

Visit shareaction.org or follow us @ShareAction to find out more.

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