



August 2022

ESG Flows and Markets: Q2 2022 Chartbook

We are pleased to share the second edition of our new quarterly chartbook, designed to monitor sustainable flows (to ESG funds, climate finance flows, and climate finance to emerging markets), ESG market development, the electric vehicle industry, and the evolution of the voluntary carbon market. We also include our regular ESG Country Scorecard—a useful indicator of progress in areas including carbon efficiency as well as broader environmental and social issues in emerging and frontier markets. We welcome your comments!

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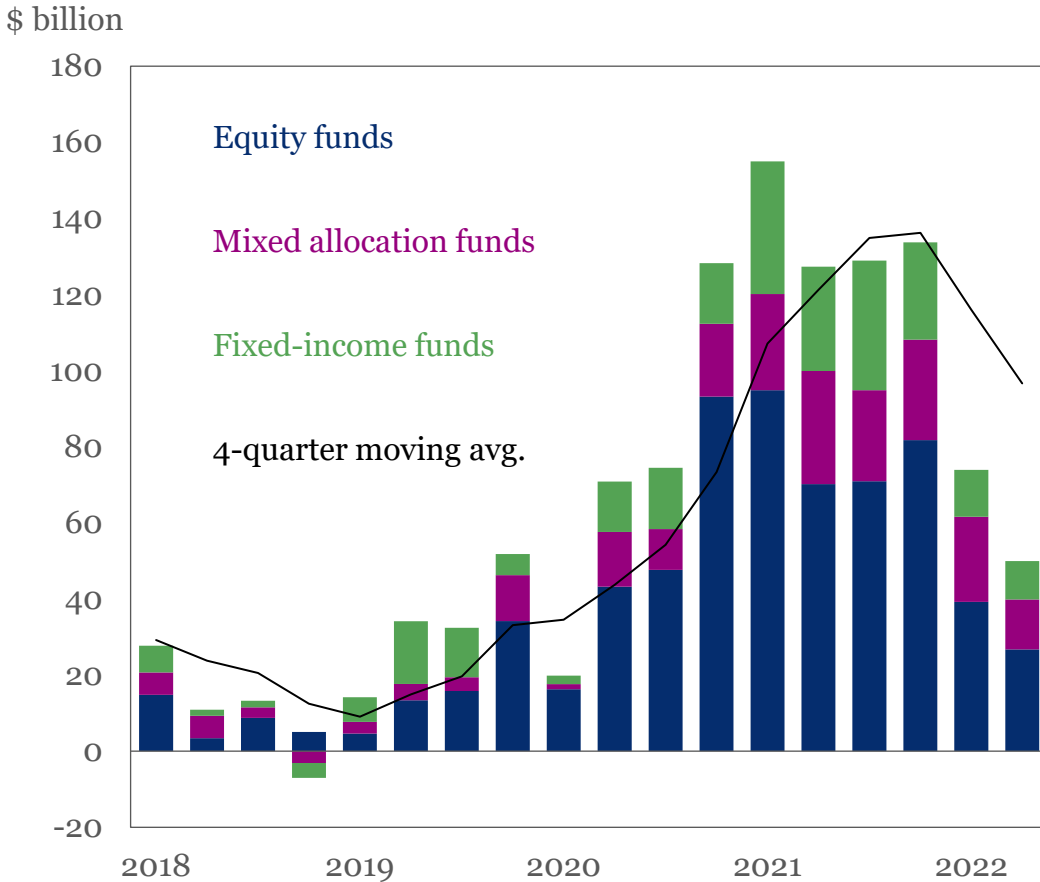
Backdrop: ESG Flows and Markets

- As broad market disruption continued, [flows to ESG funds](#) fell for a second consecutive quarter in Q2 2022. However, they remain in positive territory year to date—in sharp contrast to large outflows from conventional funds.
- Global [sustainable/ESG debt issuance](#) exceeded \$645 billion in H1 2022; while some 15% below year-ago levels, this was double the pace of H1 2020. Sustainability-linked bond and loan markets also saw robust issuance in H1 2022. Emerging and frontier markets issued over \$120 billion in sustainable/ESG debt in H1 2022, up from over \$100 billion a year ago.
- The size of the [voluntary carbon market](#) has grown rapidly in recent years, but experienced a marked slowdown this year. Most of the issuance in H1 2022 [came](#) from India, China, Democratic Republic of the Congo and the U.S.
- Total global car sales are on track to hit the lowest level since 2010 as global recession fears loom. In contrast, [electric vehicle \(EV\) sales](#) continue to grow rapidly, particularly in the U.S. and China.
- Romania, Ethiopia, Costa Rica have the top [ESG country scores](#) in our sample of emerging and frontier market economies, reflecting their strong performance on carbon efficiency and environmental factors (though Romania has more scope to reduce carbon intensity).

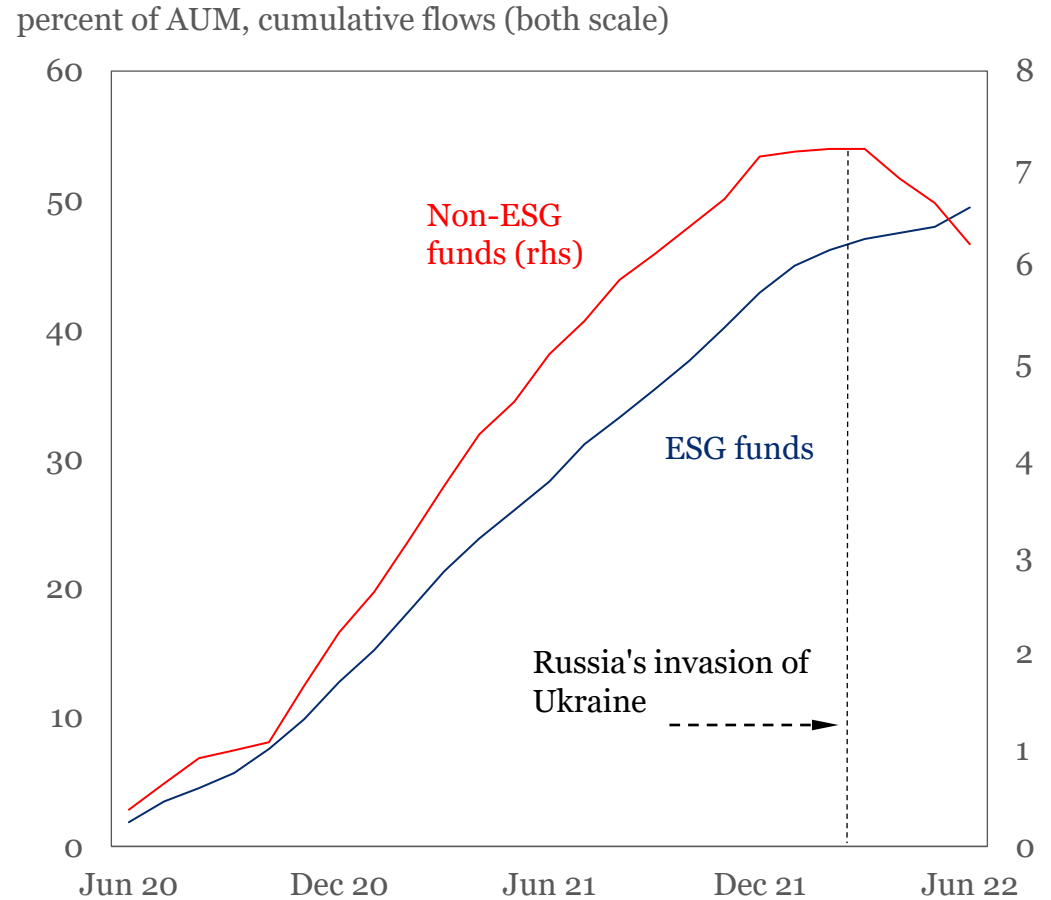
1. Sustainable Finance Flows

Despite a sharp slowdown in H1 2022 amid Fed rate hikes and Russia's war in Ukraine, flows to ESG funds remain in positive territory

In turbulent market conditions, flows to ESG funds fell sharply in H1 2022—but are still positive year-to-date



ESG funds continue to attract positive net flows—in sharp contrast to large outflows from non-ESG funds

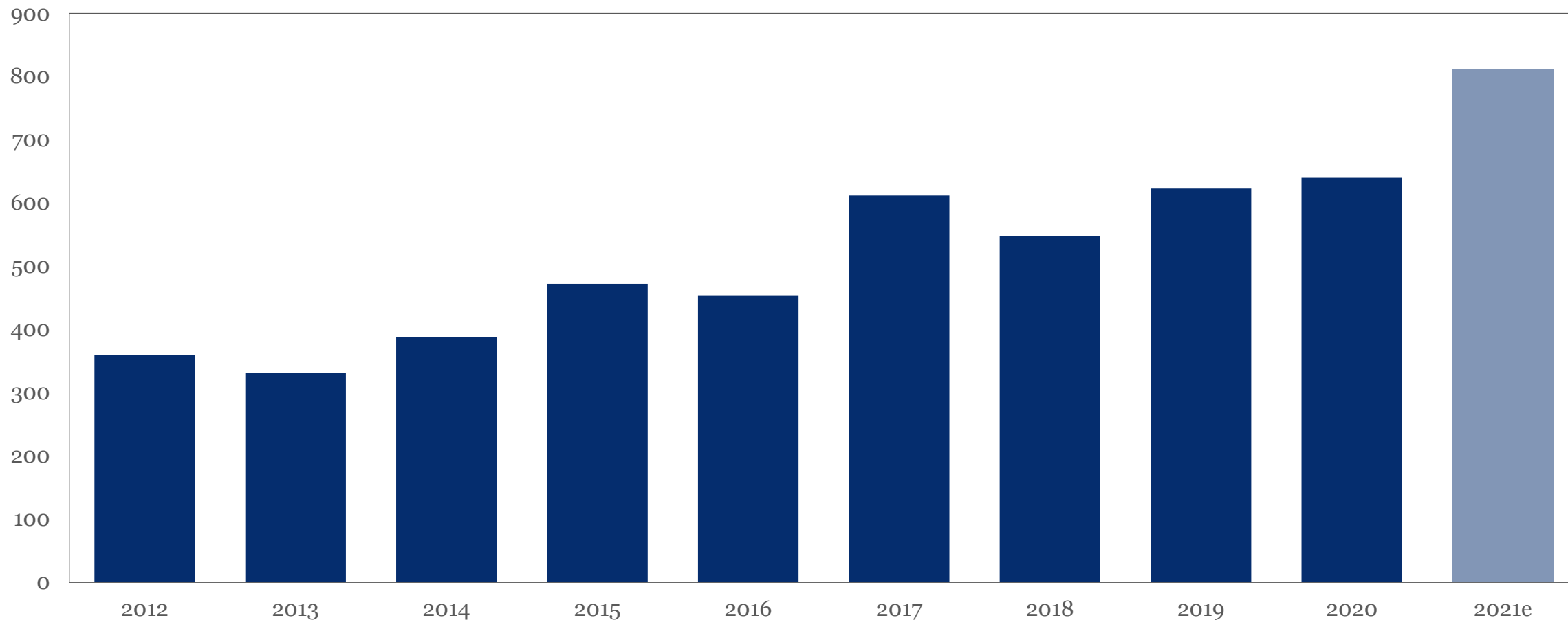


Source: Morningstar, IIF

Source: Morningstar, IIF

Climate finance flows are rising, but remain well short of what will be needed to keep global warming to under 1.5C and/or to achieve net-zero emissions

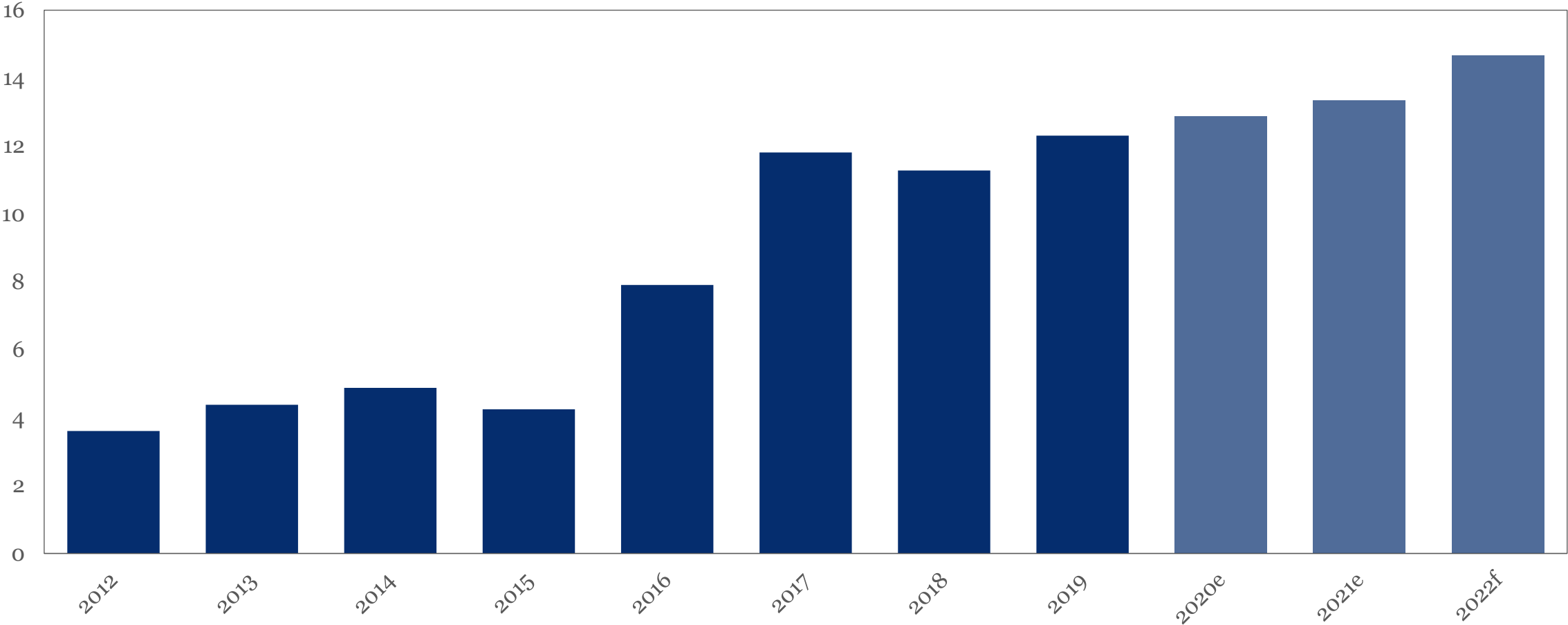
\$ billion, climate finance investment flows



Source: CPI, IIF estimates; *Based on the CPI's definition on climate flows, mainly tracking project level investment that aims to reduce carbon emissions and increase energy

Private climate finance flows to emerging markets are expected to surpass \$14 billion in 2022, but still account for only 2% of total EM capital flows

\$ billion, private investment flows to EMs for climate action (ex-China)

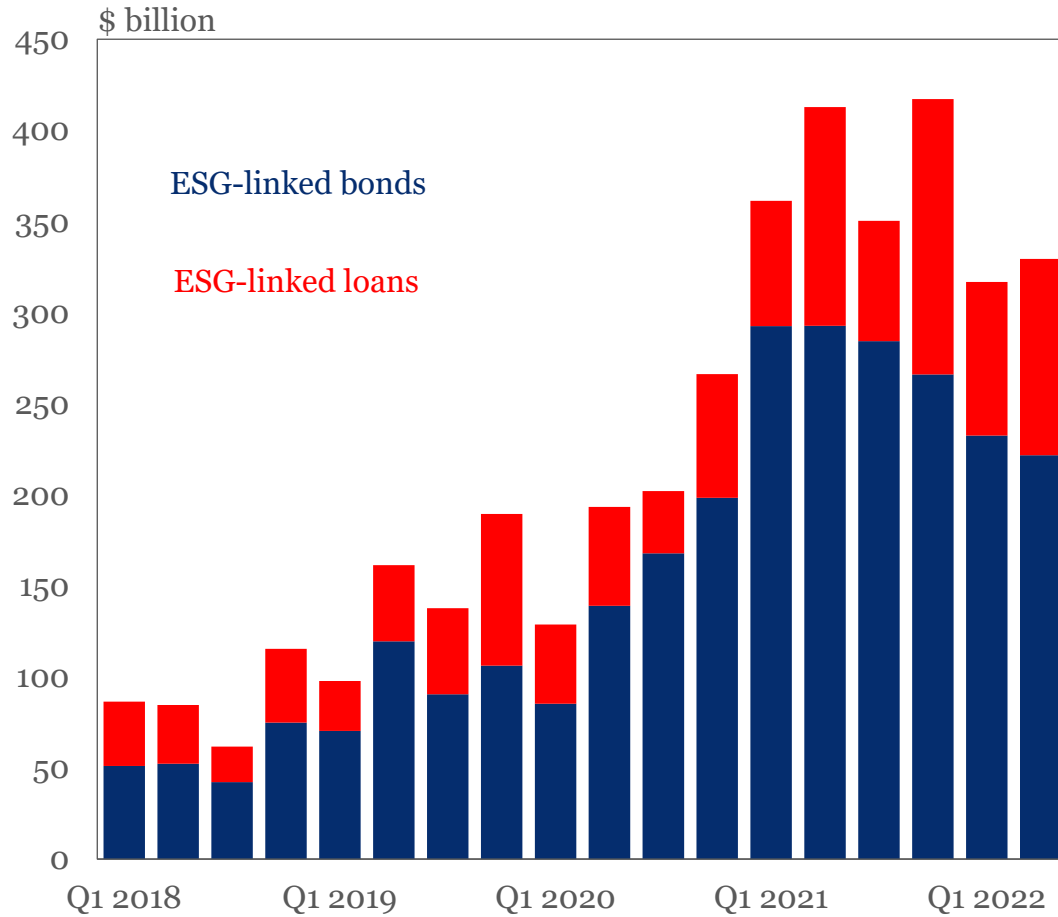


Source: OECD, IIF estimates; see OECD series on the mobilization of private investment for climate change, includes equity and debt investment

2. ESG Debt Issuance

Q2 2022 saw a slight pickup in ESG debt issuance, largely driven by sustainability-linked bonds and loans

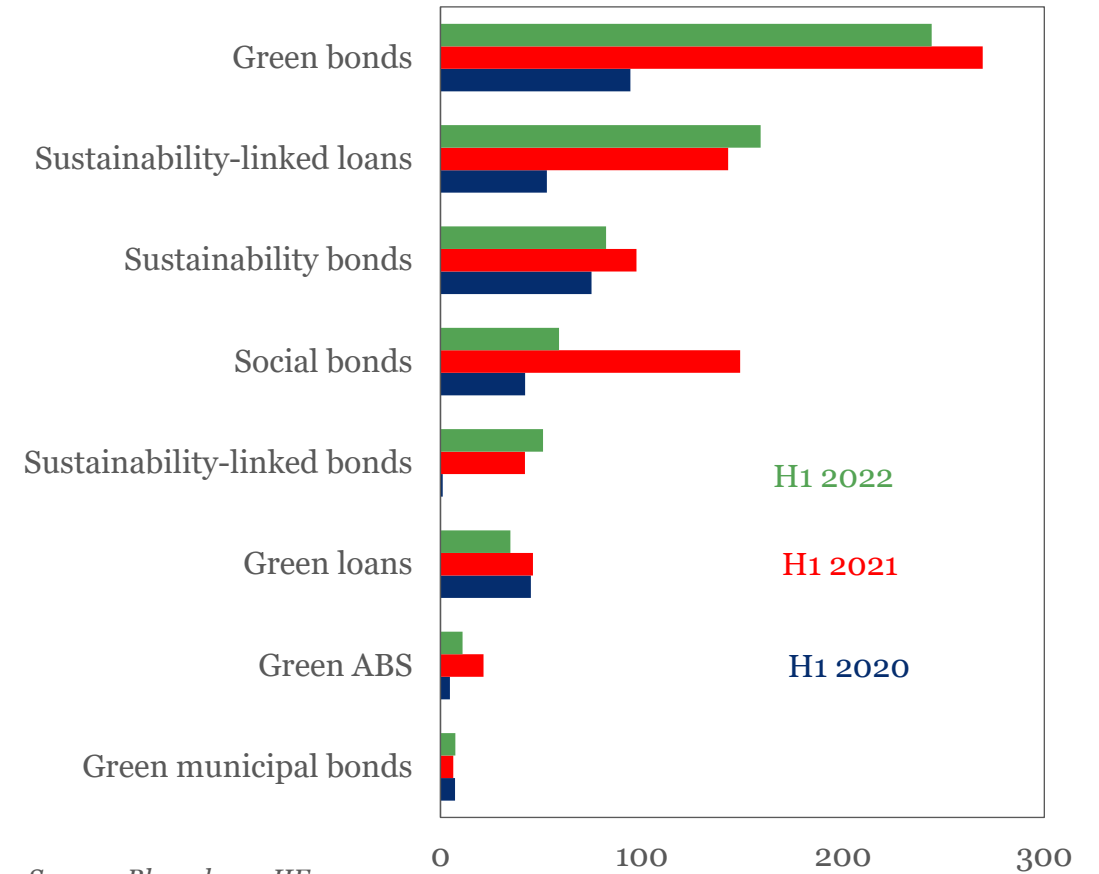
ESG-labelled Debt Issuance



Source: Bloomberg, IIF

Issuance volumes for social bonds and green loans were subdued in H1 2022

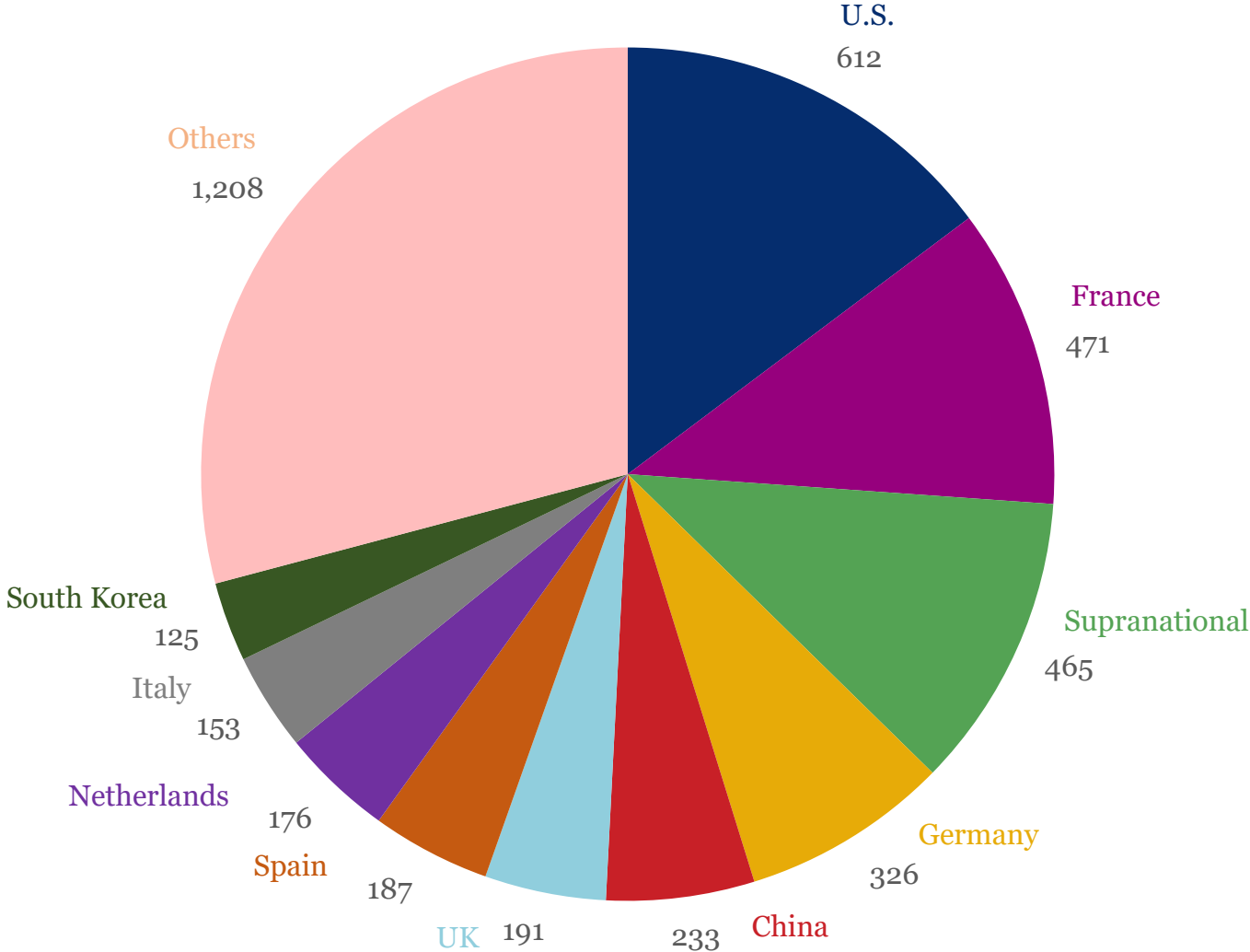
\$ billion



Source: Bloomberg, IIF

The U.S. has the world's largest ESG debt market, followed by France

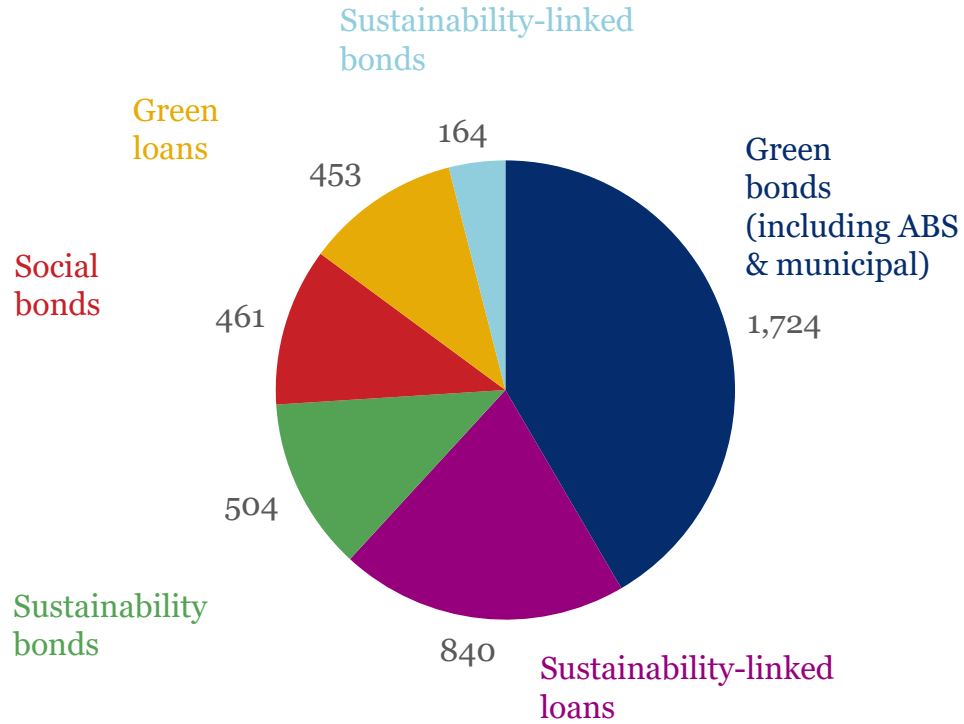
\$ billion, as of Q2 2022



Source: Bloomberg, IIF

ESG-labelled bonds make up 70% of the sustainable debt universe

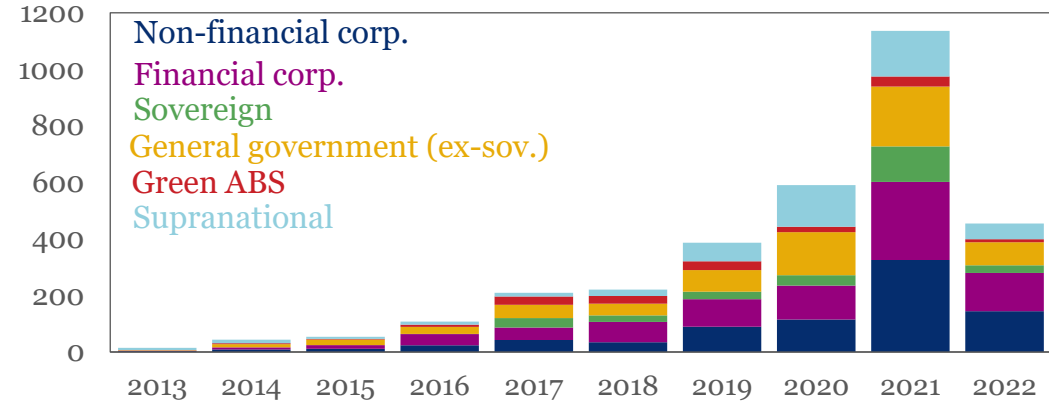
\$ billion, as of Q2 2022



Source: Bloomberg, IIF

ESG-labelled bond issuance, by sector

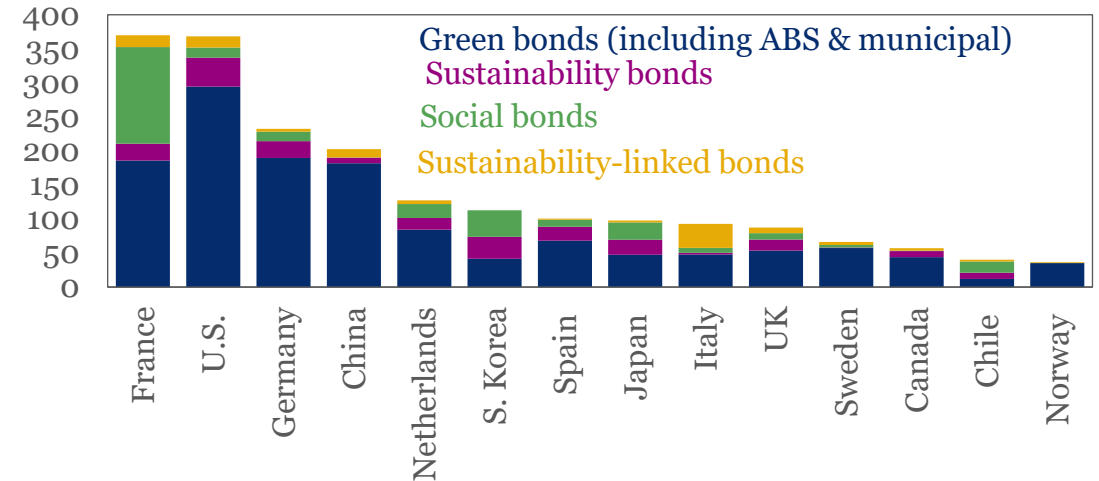
\$ billion, 2022 is through June '22



Source: Bloomberg, IIF

ESG-labelled bond market size, by country

\$ billion, Q2 2022

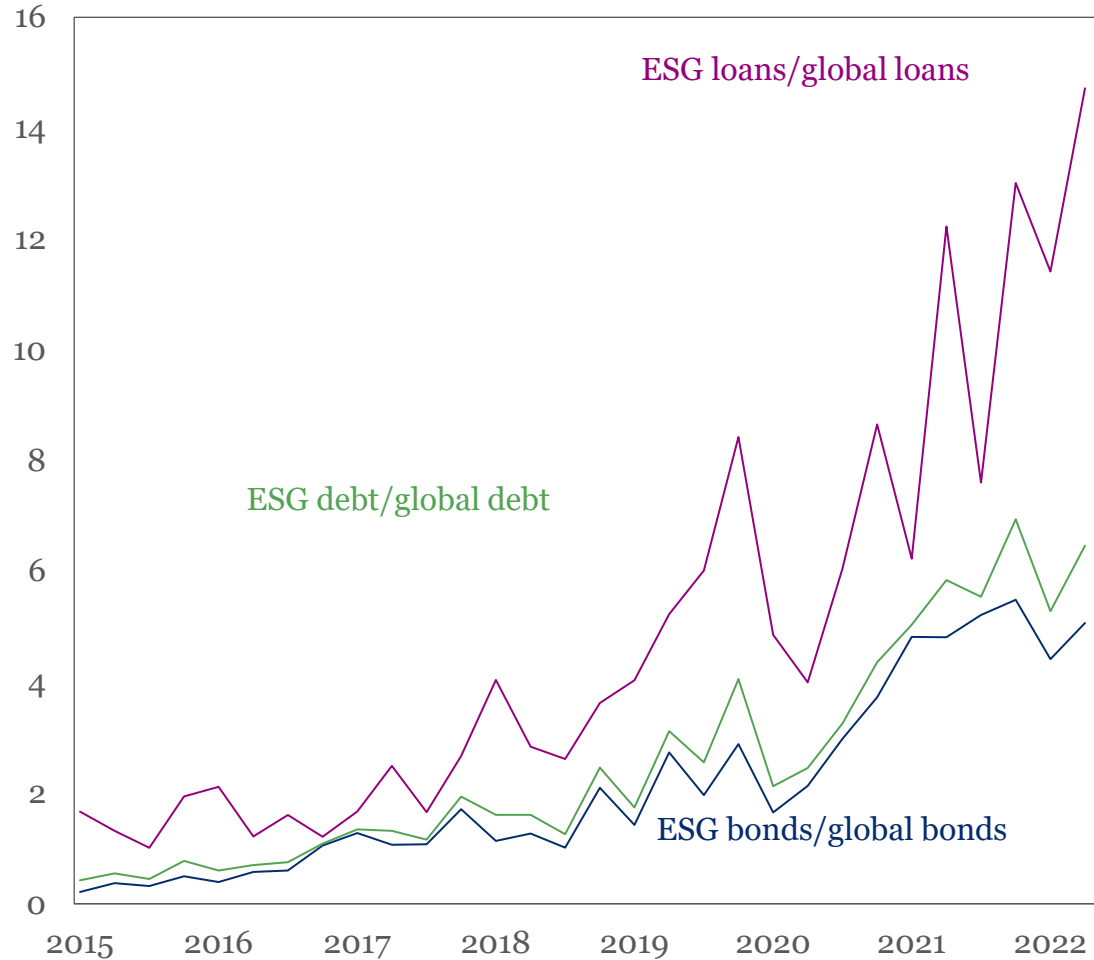


Source: Bloomberg, IIF

ESG integration in global bond markets continues at a rapid pace, with ESG issuance topping over 6% of global issuance in Q2 2022

ESG debt issuance topped over 6% of global debt issuance in Q2 2022

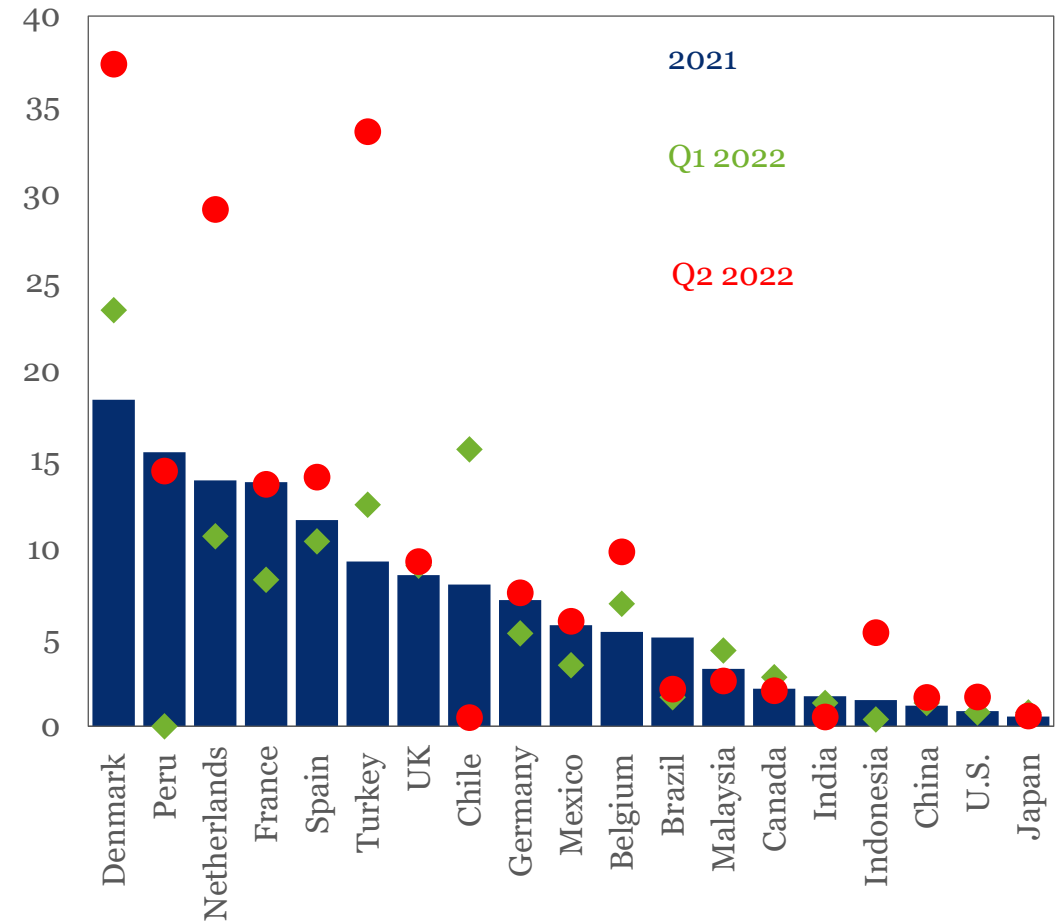
percent, based on quarterly values, Q2 2022 is latest



Source: Bloomberg, IIF; includes tenor > 1

The share of ESG debt issuance was highest in Denmark, the Netherlands and Turkey in Q2 2022

percent, share of ESG debt issuance/global debt issuance



Source: Bloomberg, IIF; includes short-term and long-term securities

IN DEPTH: ESG integration in global debt markets

ESG debt issuance by country*

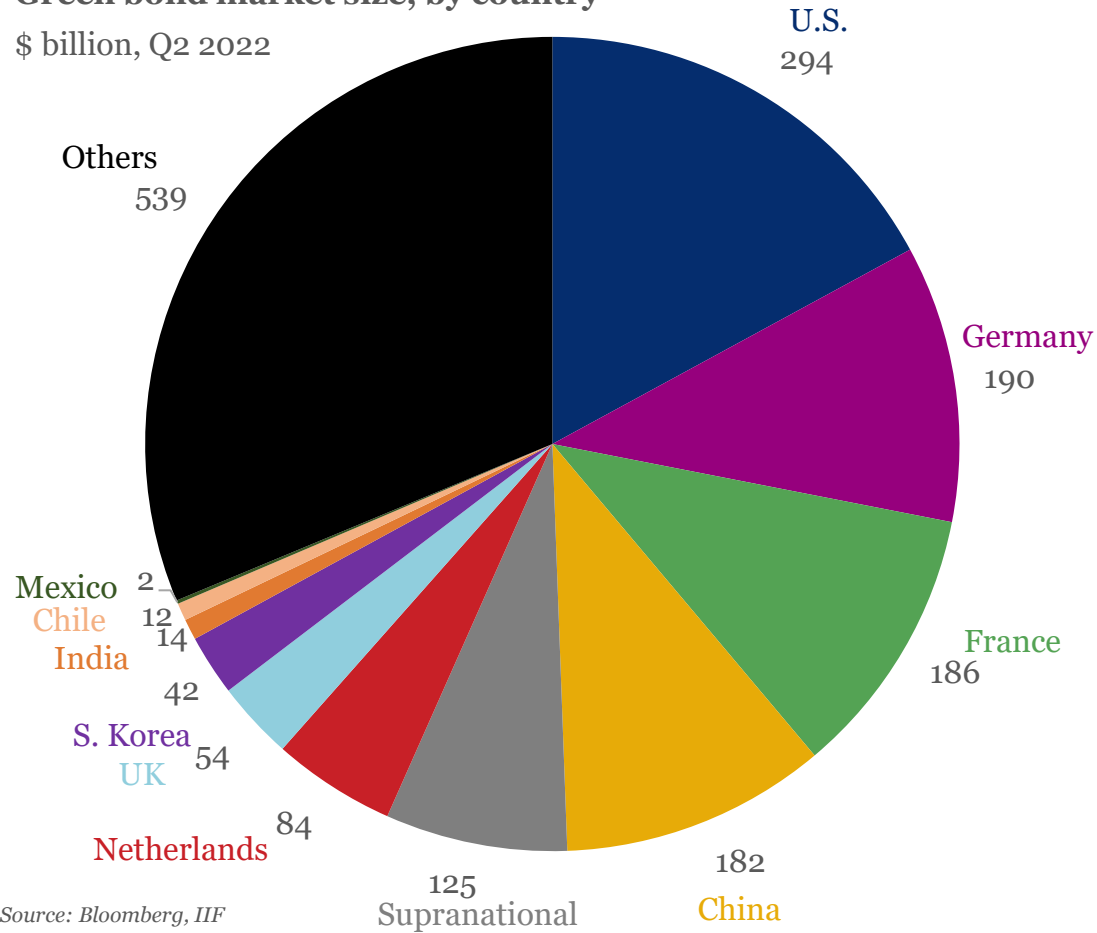
	ESG 2020	2020 share	ESG 2021	2021 share	ESG Q1 '22	Q1 share	ESG Q2 '22	Q2 share
	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance	\$ billion	% of total debt issuance
U.S.	121.1	0.4	222.2	0.9	37.0	0.8	55.3	1.7
China	22.0	0.2	114.4	1.2	33.4	1.3	40.0	1.6
France	97.2	7.1	170.6	13.7	26.6	8.3	30.9	13.6
Germany	73.0	3.7	124.0	7.1	23.0	5.2	22.5	7.5
Netherlands	22.3	4.5	46.5	13.8	13.8	10.7	16.8	29.1
United Kingdom	27.0	2.4	74.5	8.5	12.7	9.0	11.3	9.3
Italy	18.0	1.9	58.4	7.3	11.3	7.6	12.3	10.6
Spain	36.0	5.4	55.4	11.6	13.3	10.4	8.7	14.0
Japan	23.5	0.3	39.3	0.5	13.1	0.8	8.7	0.6
South Korea	24.8	3.4	63.8	7.4	11.3	6.5	10.0	6.6
Australia	8.7	1.7	37.3	10.5	10.0	10.0	6.8	6.6
Sweden	24.8	10.4	36.7	14.3	7.6	16.8	8.7	16.6
Canada	14.3	1.1	26.3	2.1	8.4	2.8	4.8	2.0
Turkey	3.6	2.6	11.3	9.3	3.4	12.5	6.6	33.5
Norway	9.9	6.3	19.2	11.6	4.8	11.4	3.7	13.2
Austria	1.9	0.9	7.8	4.9	0.5	1.6	7.3	29.2
Denmark	6.8	8.3	17.5	18.4	3.3	23.4	4.2	37.3
Chile	6.4	2.3	24.6	8.0	6.7	15.6	0.5	0.5
Switzerland	6.7	2.1	17.3	6.2	4.0	5.5	2.8	4.3
Finland	7.6	6.1	12.7	11.5	2.5	7.3	4.2	11.9
Mexico	4.8	1.9	14.2	5.7	2.5	3.4	2.5	5.9
Belgium	8.3	4.4	6.9	5.3	3.2	6.9	1.7	9.8
Luxembourg	5.5	5.5	15.4	11.4	4.1	16.2	0.6	3.3
India	5.1	0.6	13.8	1.7	2.2	1.3	0.9	0.5
Philippines	1.8	1.6	0.9	0.5	2.3	4.6	0.5	1.2
Brazil	2.7	1.1	9.8	5.0	1.4	1.6	1.2	2.1

Source: Bloomberg, IIF; ordered by the largest ESG debt issuers in 2022

The U.S. has the largest green and sustainability bond markets

Green bond market size, by country

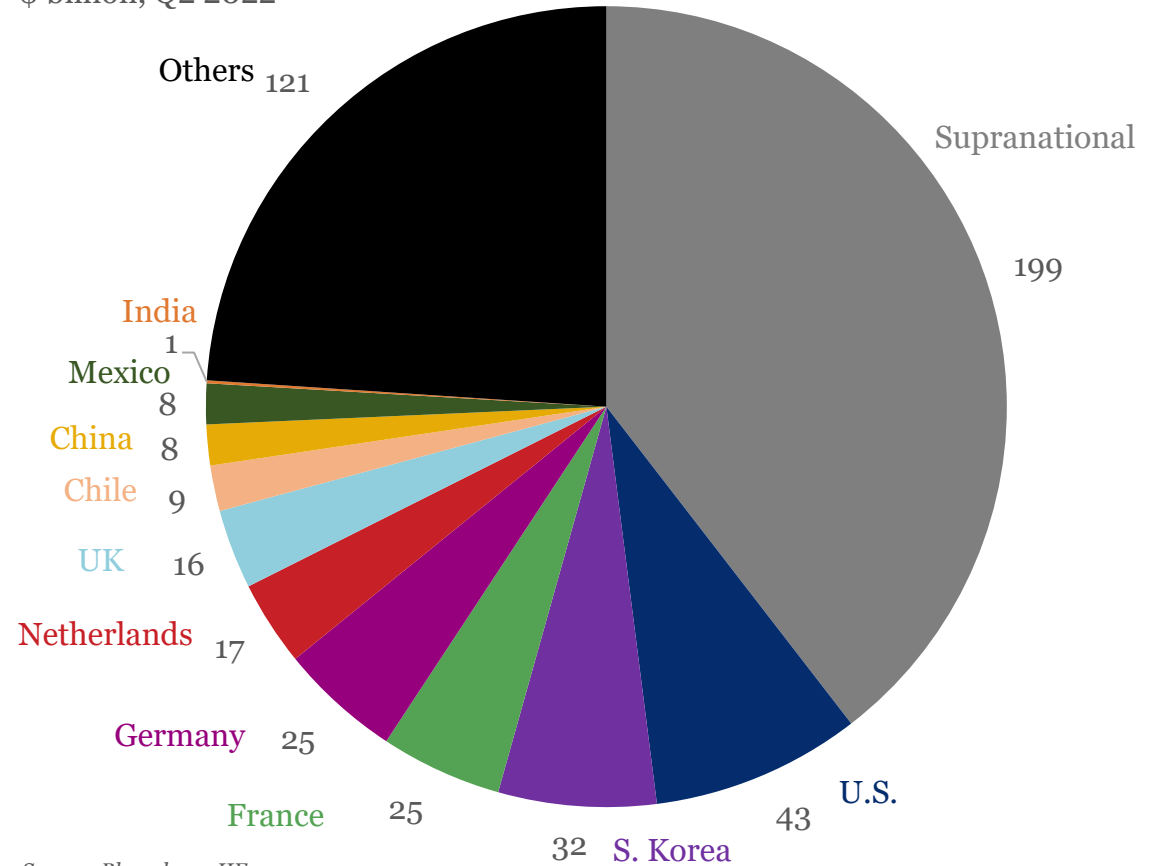
\$ billion, Q2 2022



Source: Bloomberg, IIF

Sustainability bond market size, by country

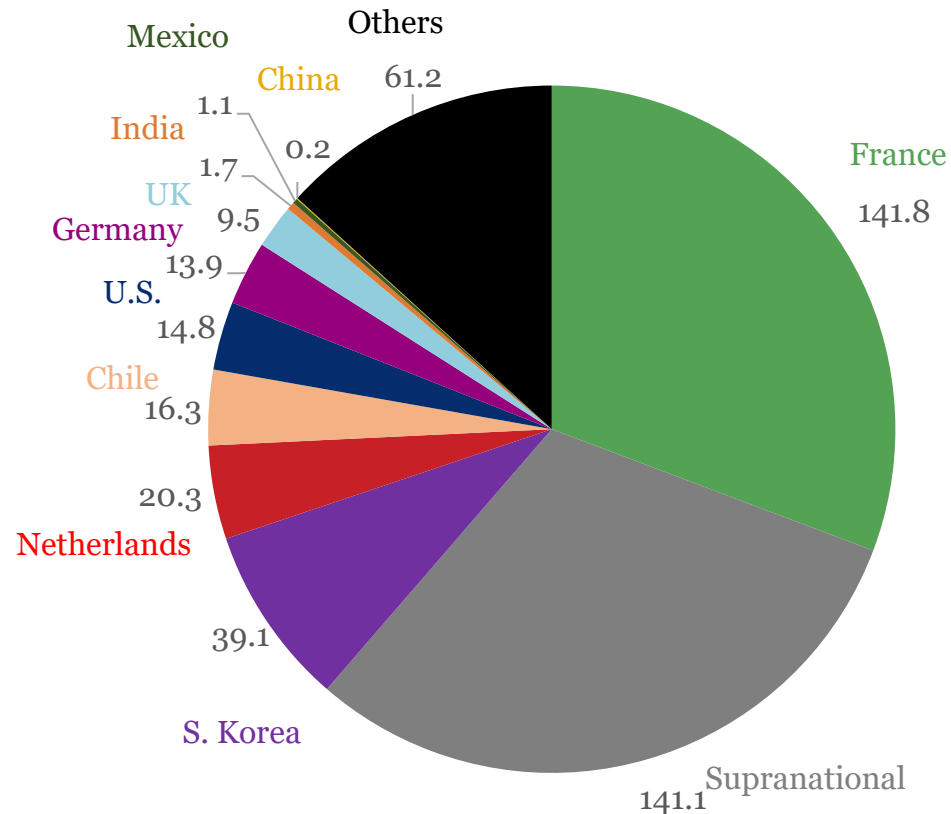
\$ billion, Q2 2022



Source: Bloomberg, IIF

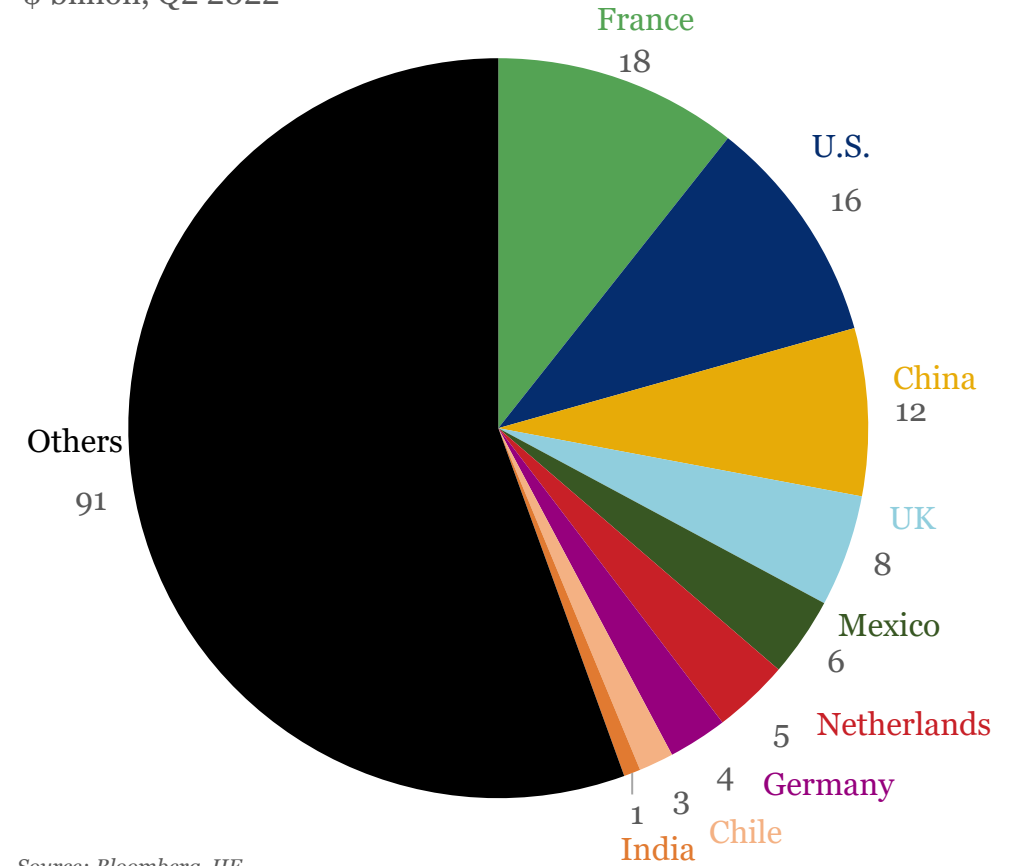
France and Italy have the largest social and sustainability-linked bond markets, respectively

Social bond market size, by country
\$ billion, Q2 2022



Source: Bloomberg, IIF

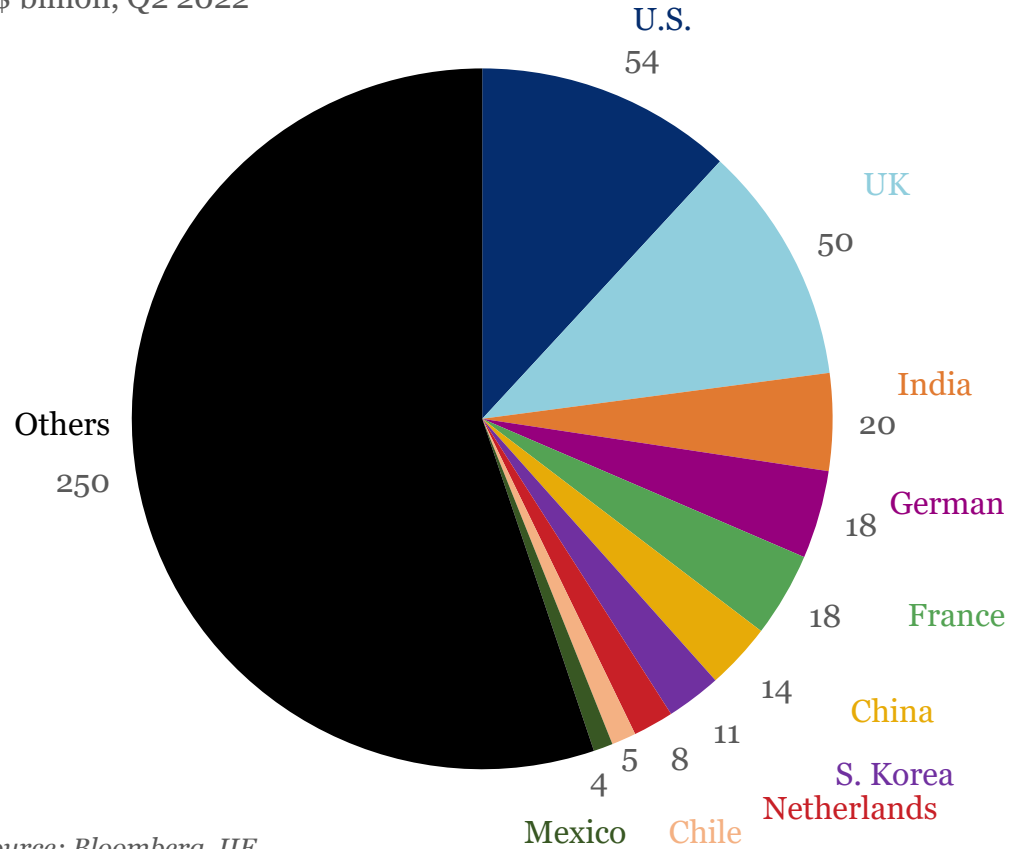
Sustainability-linked bond market size, by country
\$ billion, Q2 2022



Source: Bloomberg, IIF

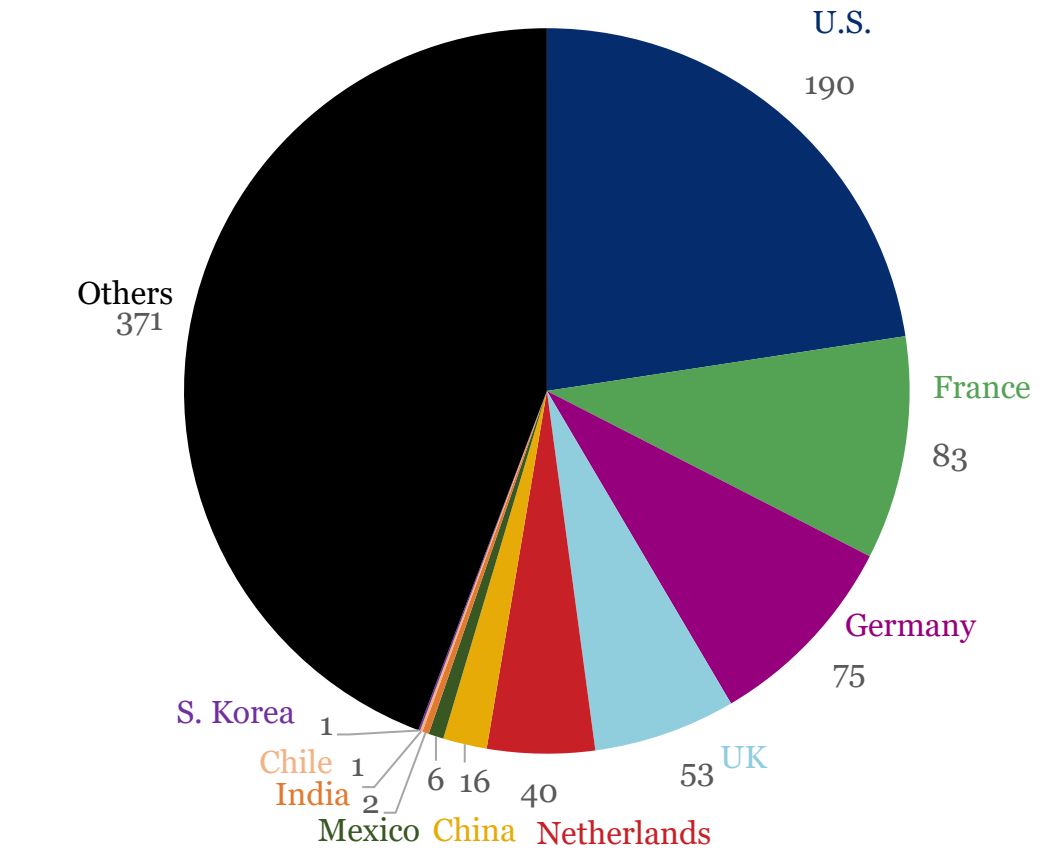
The U.S., the UK and France dominate the ESG-linked loan markets

Green loan market size, by country
\$ billion, Q2 2022



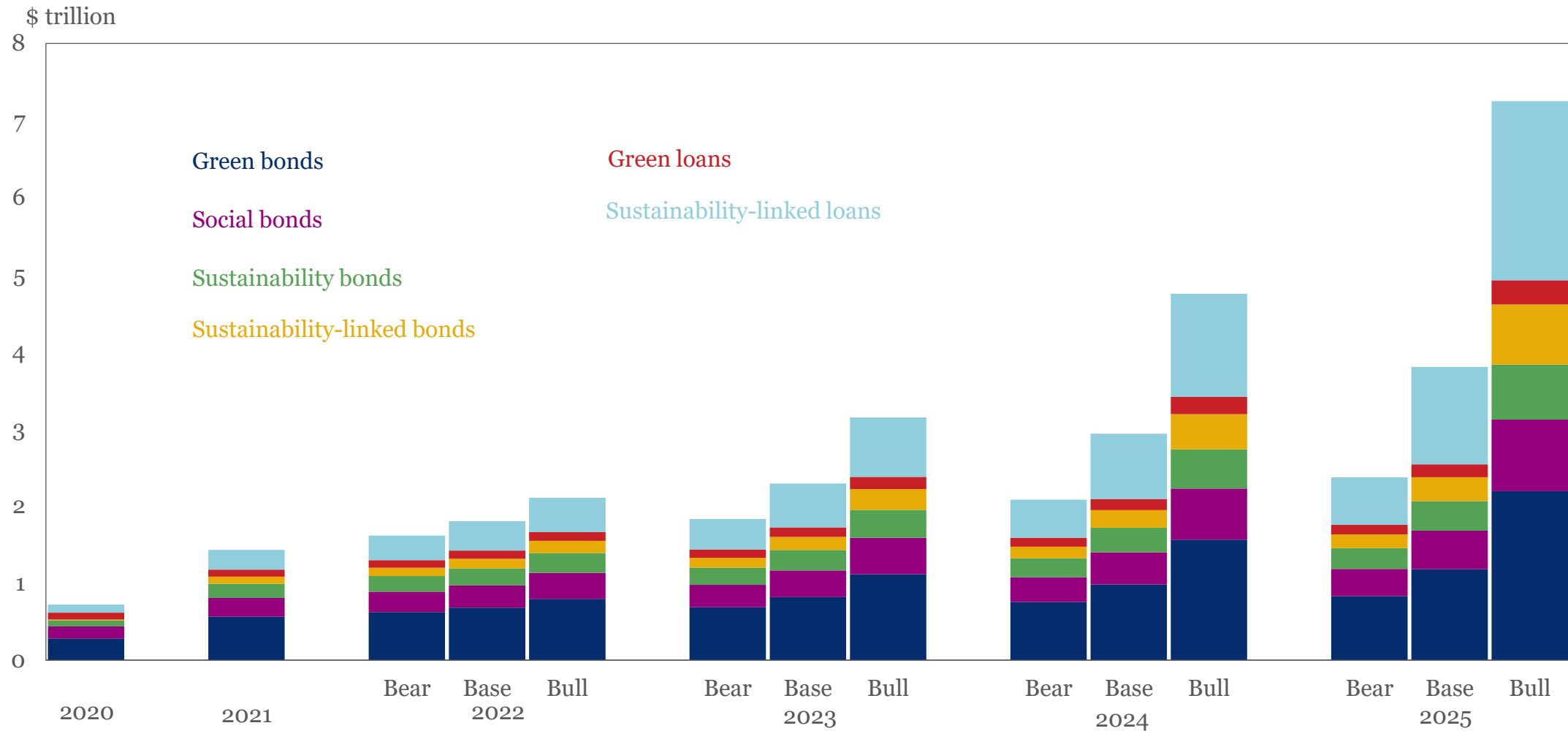
Source: Bloomberg, IIF

Sustainability-linked loan market size, by country
\$ billion, Q2 2022



Source: Bloomberg, IIF

Under favorable market conditions, total ESG debt issuance could reach an annual pace of over \$7 trillion by 2025

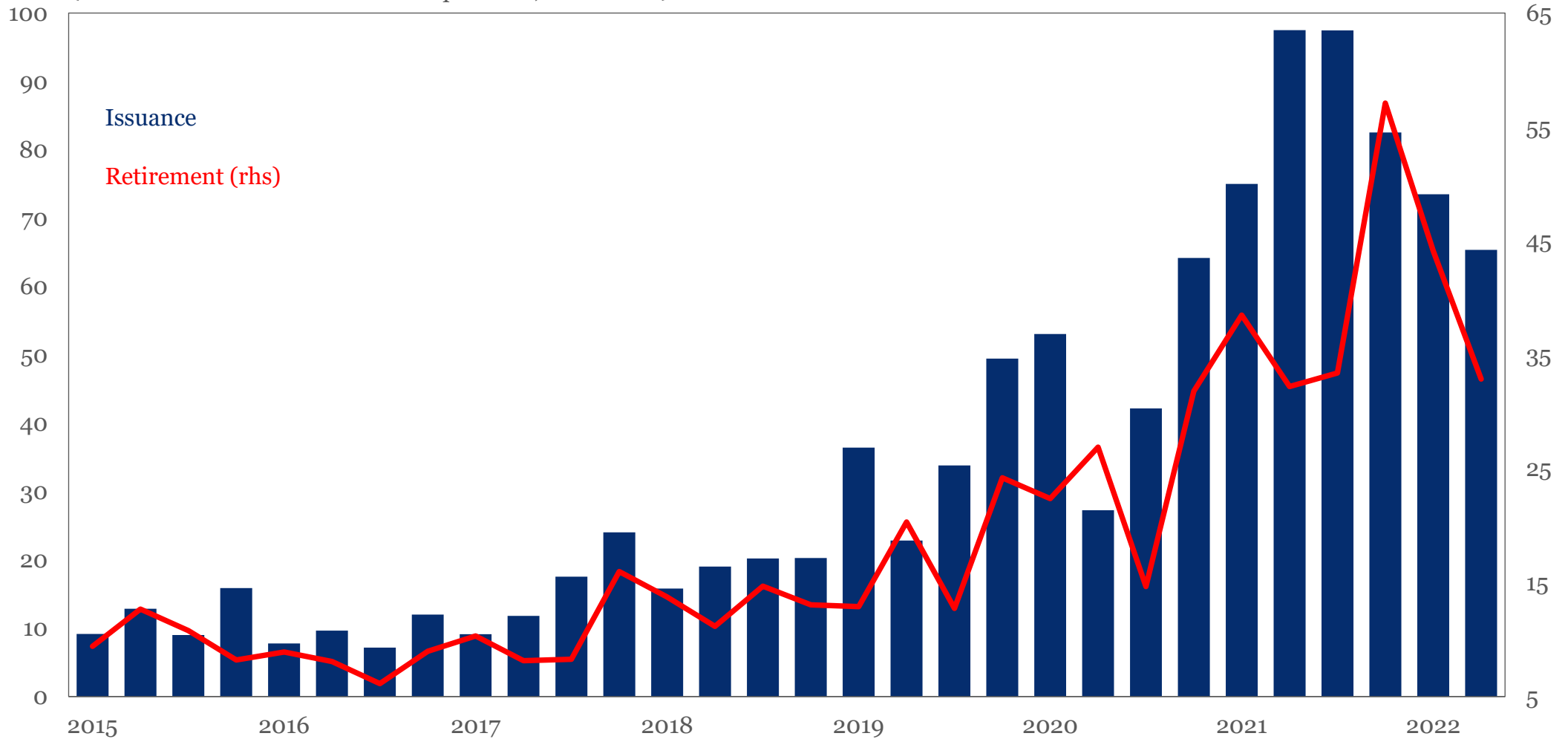


Source: Bloomberg, IIF estimates as of December 2021

3. Voluntary Carbon Markets

Voluntary carbon offset issuance was substantially weaker in H1 2022 due to ongoing geopolitical tensions and subsequent economic disruption

MtCO₂e (million tonnes of carbon dioxide equivalent, both scales)

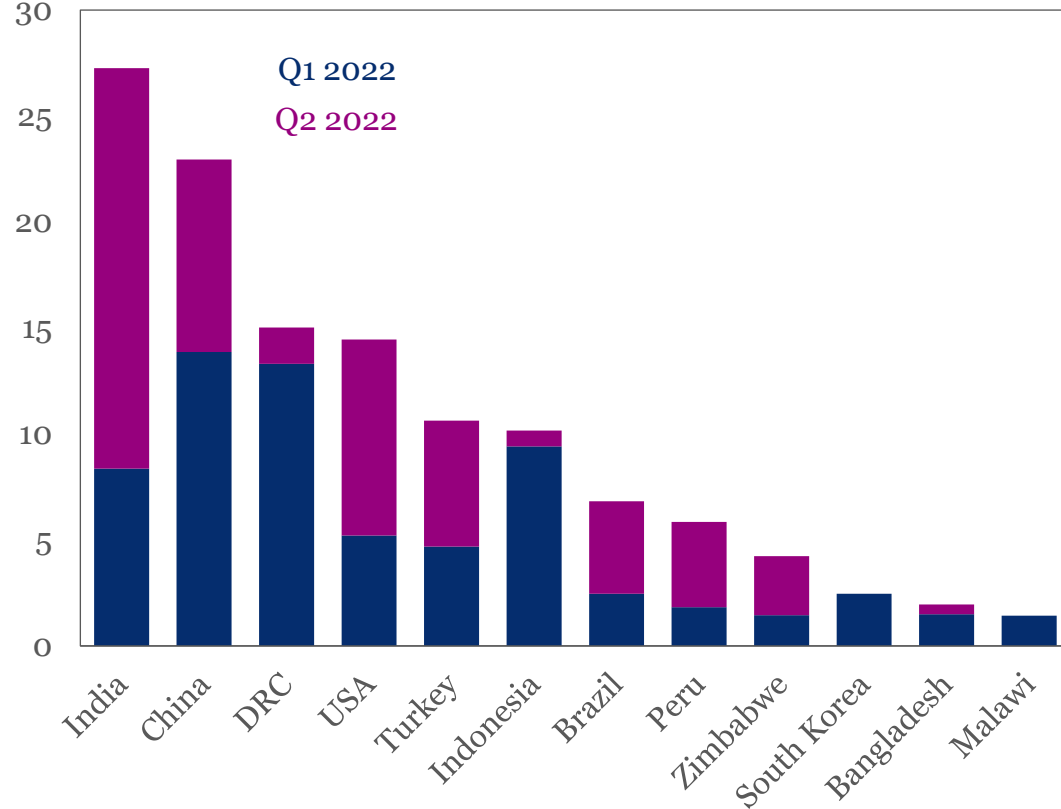


Source: IIF, VCS, GS, CAR, CAR; excludes ARB eligible issuance

Emerging markets account for the majority of carbon offset origination, with India and China accounting for a substantial share; land use and energy generation projects generate the bulk of offset issuance

The majority of carbon offsets come from emerging markets and the U.S.

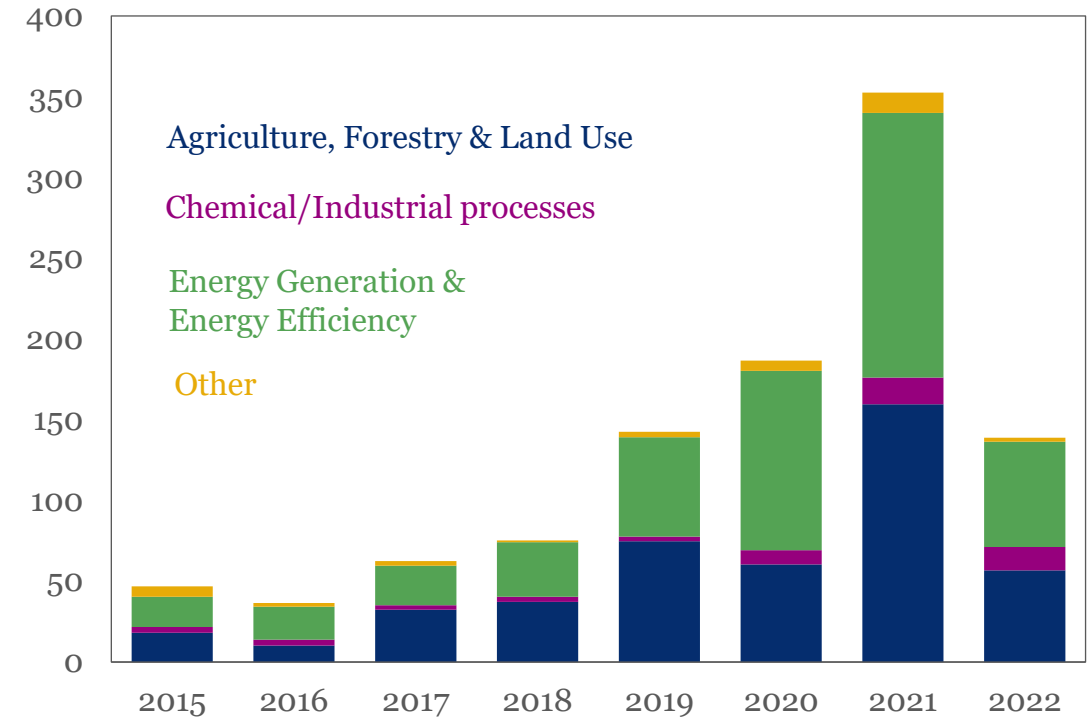
MtCO_{2e}, Q1 and Q2 2022 issuance



Source: IIF, VCS, GS, CAR, ACR; MtCO_{2e} = million tonnes of carbon dioxide equivalent

Forest, land, and energy generation projects account for the bulk of offset issuance

MtCO_{2e}, Q1 and Q2 2022 issuance



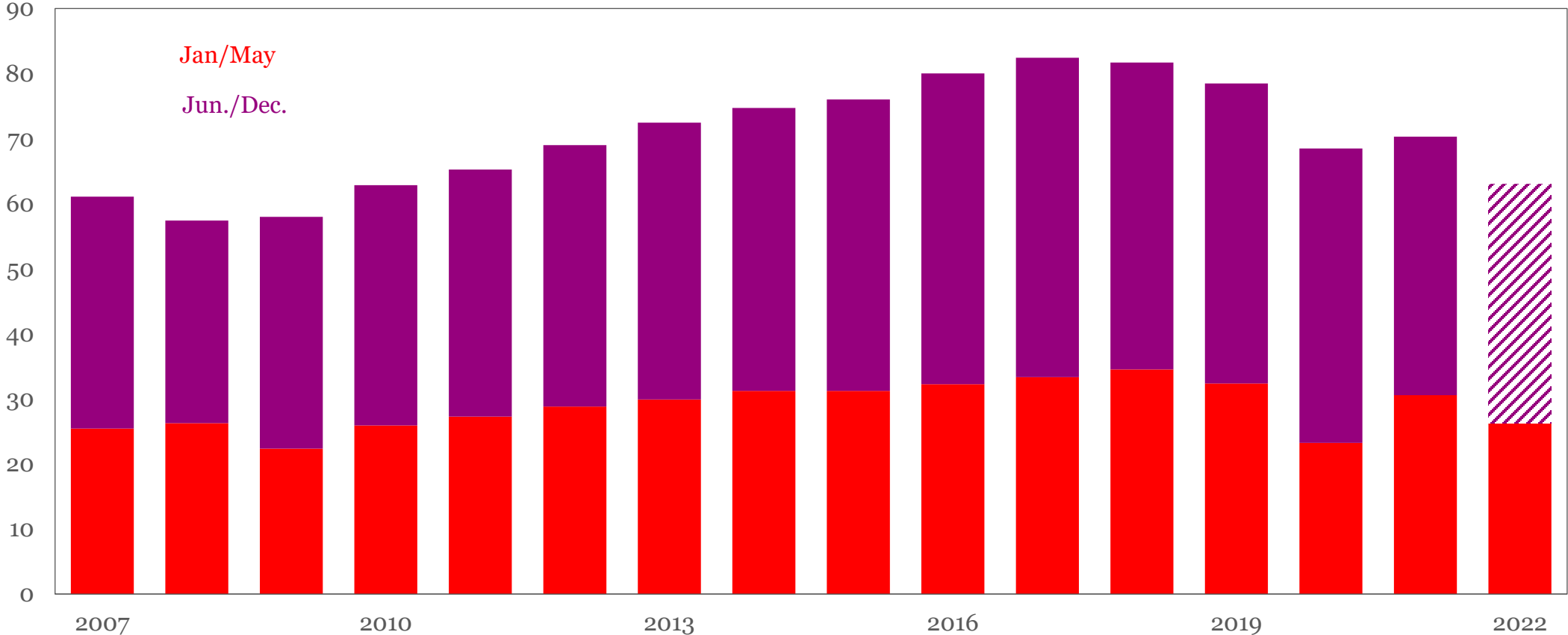
Source: IIF, VCS, GS, CAR, ACR; MtCO_{2e} = million tonnes of carbon dioxide equivalent

4. Electric Vehicle Markets

Despite modest recovery in 2021, new vehicle purchases contracted sharply in 2022 as higher gas prices and global recession fears suppressed demand

High gas prices and recession fears hit car sales

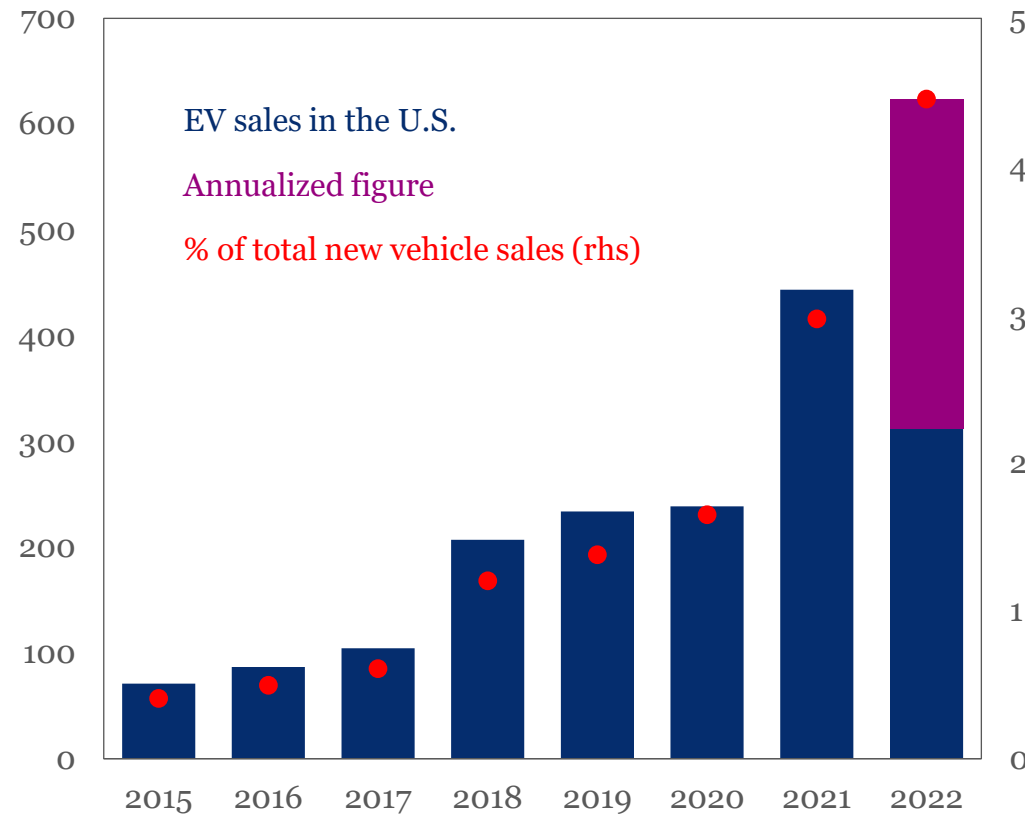
million, global car sales (2022 annualized)



Source: IIF, Bloomberg

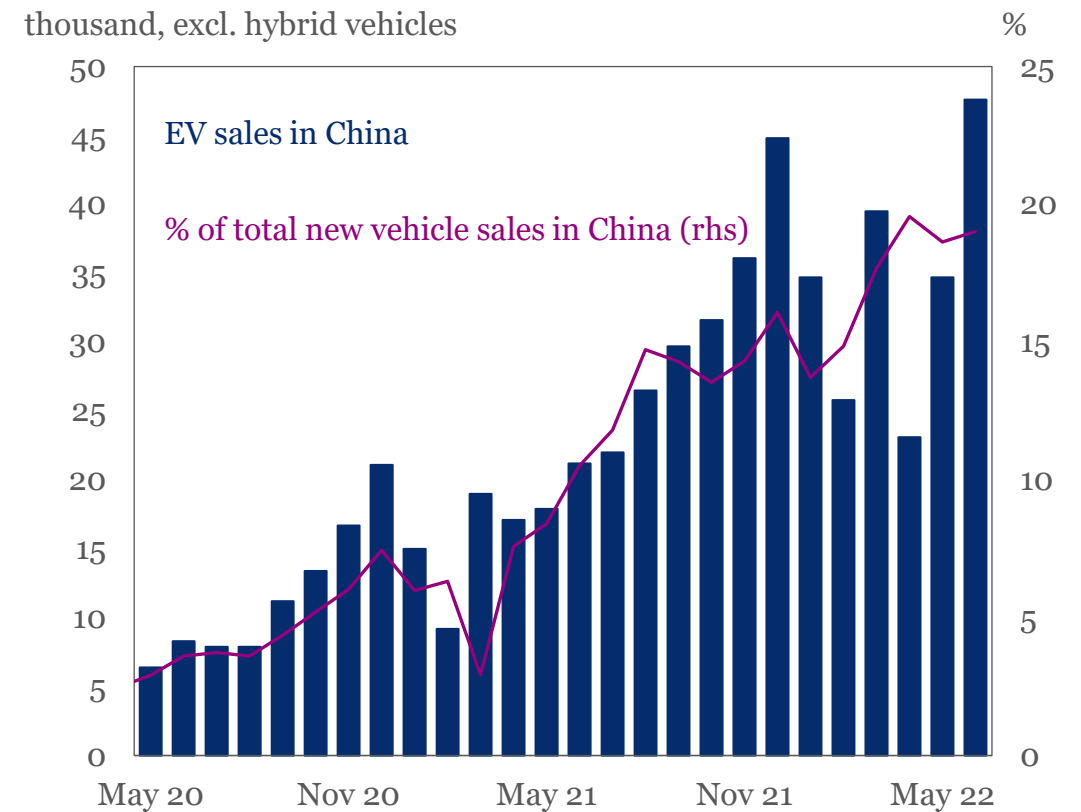
Rising EV sales in both the U.S. and China show the relative resilience of EV markets to economic fluctuations—helped by sustained policy support to increase EV adoption in many countries

U.S. EV sales are picking up
thousands, excl. hybrid vehicles, as of Q2 2022



Source: IIF, ACEA

The share of EV sales in China has more than doubled over the past two years - hovering at around 20%

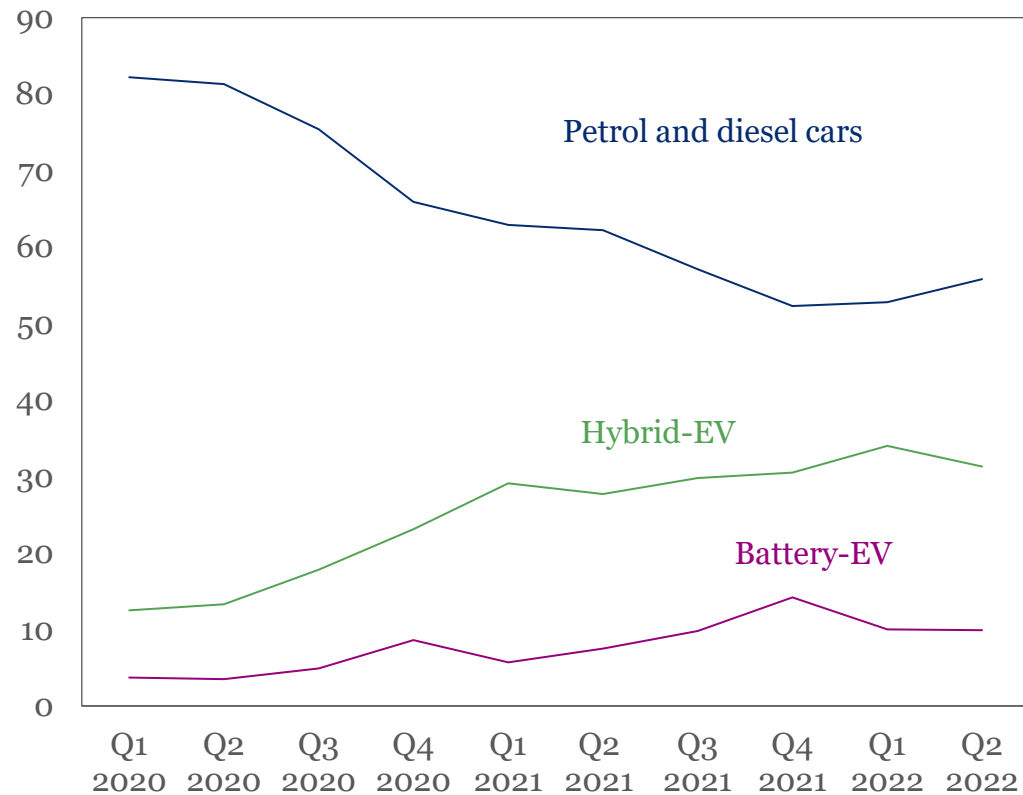


Source: IIF, CAAM

Sales of hybrid vehicles have driven the pickup of EV sales in Europe, but EV adoption rates in Europe remain well below those seen in China and vary sharply across countries.

Sales of hybrid vehicles largely outstrip EV sales in Europe

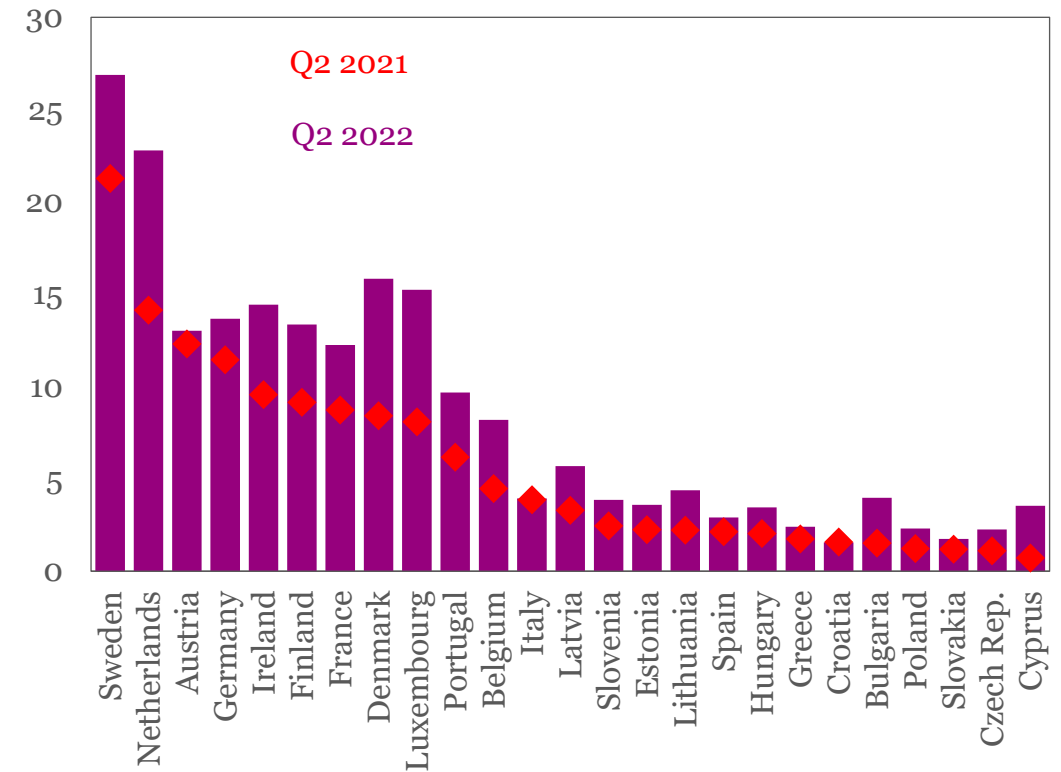
percent of total sales in EU (passenger cars)



Source: IIF, ACEA

EV adoption rates vary widely across European countries

percent of new passenger car sales (excluding hybrids)



Source: IIF, ACEA

5. ESG Scorecard for EMs & FMs

Looking at emerging and frontier markets in our sample, Romania, Ethiopia, Costa Rica (India Mongolia, South Africa) score the highest (lowest) on ESG factors

Index, from highest ESG score (100) to lowest ESG score (-100)



Our ESG Scorecard examines how countries rank relative to peers on 1) carbon efficiency, 2) environmental protection and 3) social factors; see the appendix.

Appendix

Related research notes and links:

- [Taskforce on Scaling Voluntary Carbon Markets Phase I report and recommendations](#) (January 2021)
- [Bonds that build back better: the pivotal role of fixed-income markets in the ESG revolution](#) (January 2022)
- [The Integrity Council for the Voluntary Carbon Markets \(IC-VCM\)](#)

Sustainable Debt Monitor series

- [Market turmoil weighs on ESG debt markets](#) (April 2022)
- [Sustainable Debt Universe Tops Record \\$4 trillion](#) (July 2022)

Green Weekly Insight series

- [ESG Scorecard for Frontier Markets](#)
- [Signs of recovery in ESG markets](#)
- [Carbon footprinting for emerging markets](#)
- [Are rising energy prices affecting EV sales?](#)
- [Tackling nature-related risks](#)
- [Debt, climate and inequality](#)
- [Voluntary carbon offsets—A primer](#)
- [Carbon markets: Can't trade what you can't price](#)
- [Scaling voluntary carbon markets](#)
- [A new ESG scorecard for emerging markets](#)
- [Carbon efficiency 101](#)
- [Carbon efficiency 101 – emerging markets](#)
- [Beyond climate change](#)
- [S in the spotlight](#)
- [EM vulnerabilities: gauging Russia/Ukraine impact](#)