## Research Institute

**European Transformation** 

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# Solutions to drive Europe's transformation

#### IN A NUTSHELL



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- At the end of last year<sup>1</sup>, we outlined the structural factors impeding European economic growth and investment returns. In this article, we showcase solutions that can drive Europe's transformation
- We view energy efficiency and sustainable technologies across the building, transportation and industrial sectors as offering attractive investment opportunities. These measures will strengthen energy security, power greenhouse gas emissions' reduction and deliver employment growth across the European continent
- Energy efficiency is a cross-asset class opportunity with private markets currently offering the greatest impact in terms of contributing to Europe's transformation
- To solidify Europe's role in the e-mobility sector, investment opportunities
  also exist in electric vehicle charging infrastructure and in the area of
  innovation funding for batteries. This will facilitate decarbonization, which has
  been absent in the European road transportation sector over the past three
  decades
- To finance Europe's transformation, the direct lending market is set to become an ever more important financing source for Europe's small and medium sized enterprises (SMEs). This is welcome since bank financing channels have struggled since the global financial and euro sovereign debt crises
- We see SMEs playing an important role in the digitalization of the European economy, facilitating the climate transition, securing resilient supply chains as well as addressing aging demographics and associated healthcare costs

## 1 / Introduction

To address the structural forces holding back European growth and investment returns requires a significant transformation of the European economy. This will include transforming not just the continent's transportation, building and energy sectors, but also how companies are accessing finance. In this article, we show how investments in energy efficiency and transportation infrastructure can deliver significant benefits not just in terms of advancing the continent's ambitious environmental and climate goals, but also in terms of job creation. From a financial perspective, the transformation will require significant investments, which are likely to fall heavily on the private sector given the constraints on public sector balance sheets. We explain why direct lending to small to medium sized enterprises has the potential to become an important financing vehicle. We believe these recommendations will support the European Commission's green digital growth ambitions<sup>2</sup> which are based on two pillars: investments and reforms.

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<sup>&</sup>lt;sup>1</sup> DWS Research Institute (December 2022). A framework for European Transformation

<sup>&</sup>lt;sup>2</sup> European Commission (March 2022). Towards a green, digital and resilient economy: our European Growth Model

## 2 / Energy efficiency investments

The International Energy Agency<sup>3</sup> has concluded that energy efficiency such as insulation, heat pumps, LED lighting, waste heat recovery and other technologies can be particuarly effective in strenghtening Europe's energy security. For example, between 2016 and 2021 global energy final demand grew by 6%, but, in the absence of energy efficiency measures, energy demand would have been 13% higher<sup>4</sup>.

Since buildings represent 40% of Europe's energy use and create around 36% of Europe's greenhouse gas emissions<sup>5</sup>, the widespread acceleration of energy efficiency measures to green existing European buildings and infrastructure is essential. Indeed, even though the European Commission has proposed that by 2030 all new buildings must be zero emission, this still leaves the existing building stock, 85% of which will still be standing in 2050.

Energy efficiency and building retrofitting have added benefits since they can improve air quality, boost productivity and support health and well being. In addition, building retrofits can increase asset valuations, reduce financial risks and deliver significant economic stimulus benefits. For example, sustainably certified office buildings have a lower vacancy rate compared to non-certified buildings in major European cities. When the effects of building size, location, age and renovation history are taken into account, offices with certifications gain a 6% rental premium<sup>6</sup>. When it comes to residential mortgages, a study of over 800,000 mortages across Finland, Germany and the UK founds that customers with high and medium energy efficient properties are around 20% less likely to default that low energy efficient mortages, "all other things equal".

Moreover, a survey<sup>7</sup> of central bank and national finance department officials found that retrofitting buildings was one of the best ways to stimulate growth and cut carbon emissions. This was corroborated by other research that revealed that of thirty-five building retrofit programs an average of 18 jobs were created per €1m investment, which was more than six times the jobs created in high carbon sectors such as fossil fuels.

Energy efficiency is a cross-asset class opportunity, Figure 1. In our view, private markets as currently offering the greatest impact in terms of contributing to Europe's transformation. In a recent DWS report<sup>8</sup>, we examined energy efficiency project funds where beneficiaries realize annual energy cost savings that, in the best case, exceed the amortization payments, thus lowering the cost base; the project sponsor generates more business while benefiting from the equity investment into the project structure; and the fund investor earns an attractive risk-adjusted return. As well as energy efficiency projects that address climate risk.

Figure 1: Energy efficiency investment by type

Transformation potential – private markets	Transformation potential – public markets
Project finance investment funds	Investor stewardship with corporates and banks
Real estate private equity funds	Sustainability linked bonds
Sustainable focused infrastructure deals and funds	Use of proceeds green/sustainable bonds
Direct lending and private debt	Public equities: climate solution providers
Corporate supply chain partnership private equity	
Private equity fund of funds: sustainable technologies	

Source: DWS Research Institute (March 2023) Energy efficiency project-focused funds https://www.dws.com/en-gb/insights/global-research-institute/energy-efficiency-project-focused-funds/

<sup>&</sup>lt;sup>3</sup> IEA (December 2022) www.iea.org/reports/how-to-avoid-gas-shortages-in-the-european-union-in-2023

<sup>&</sup>lt;sup>4</sup> IEA (December 2022) www.iea.org/reports/energy-efficiency-2022

<sup>&</sup>lt;sup>5</sup> European Commission (February 2023). Energy performance of buildings: climate neutrality by 2050

<sup>&</sup>lt;sup>6</sup> CBRE (2022). Is sustainability certification in real estate worth it? Evidence from European office markets

<sup>&</sup>lt;sup>7</sup> Llovds (2022

<sup>8</sup> Hepburn et al 2020 https://academic.oup.com/oxrep/advance-article/doi/10.1093/oxrep/graa015/5832003

## 2 / Transportation investments

One of the goals of the European Commission's Green Deal<sup>9</sup> is to achieve a 55% reduction in transport-related greenhouse gas emissions by 2030, and a 90% decline by 2050 (compared to 1990 levels). Within the transportation sector, road transport represents 77% of the sector's overall emissions<sup>10</sup> in 2020 and this sector is ripe for transformation.

European transportation is the only sector where carbon emissions have actually risen over the past three decades<sup>11</sup>. Electrifying road transportation has therefore become an urgent priority. Thankfully, compared to other parts of the world, Europe has established itself as an important hub of electric vehicle (EV) production and expanding charging point infrastructure. For example, Europe accounts for a third of the global EV car fleet and is home to a fifth of the charging stations globally.

To safeguard this leadership Europe needs to embark on a radical program of infrastructure investment spread across three areas:

- (i) charging infrastructure
- (ii) upgrades to power distribution systems and transformers for e-mobility purposes
- (iii) increased renewable power generating capacity.

While investment models have matured and government support has been forthcoming for the latter two areas, funding for charging infrastructure itself has failed to keep pace. ACEA estimates¹² that combined investments across these three areas will need to amount to €280 billion by 2030. And when examined relative to other comparable infrastructure projects, it reveals that annual investment for EV charging infrastructure amounts to just 16% of the required investment for 5G and glass fiber infrastructure in the EU or around 11% of the annual investment in grid updates.

Given the compelling demand outlook for EV charging infrastructure, it is hoped that the private sector will become the vanguard of the roll out of charging points across Europe to address the existing shortfall. Growth in EV infrastructure transaction activity in recent years could suggest that some of the US\$1 trillion of private assets under management (AUM) globally is now targeting infrastructure, as well as the growing number of liquid infrastructure funds, are primed to help with the sector's growth. Indeed, 2022 saw a significant ramp-up of infrastructure deal activity in the EV infrastructure sector, with US\$8 billion transacting over 46 deals, according to data from Infralogic<sup>13</sup>. This represents a near ten-fold increase in transaction value since 2019.

However, such levels of private activity currently fall significantly short of the substantial charging point requirements. There are two key drivers of the shortfall in private capital:

- (i) A lack of government support to guide investors, with the industry somewhat of a 'wild west' with players of all shapes, sizes and jurisdictions pursuing different strategies
- (ii) And secondly, there are few EV charging businesses developing charging points that exhibit the infrastructure characteristics that investors deem attractive from an infrastructure portfolio allocation perspective namely securing long-term, low volatility, defensive returns.

There is, therefore, a requirement to address these mismatches in expectations between the necessary investments and investor appetite.

#### **Extending incentives into EV charging infrastructure**

One of the key issues is a lack of incentive to roll out EV charging infrastructure in locations without existing, proven demand. Government subsidies and carbon emission reduction targets have been forthcoming with regards to transitioning the European vehicle fleet, but there have been fewer examples of consistent and comprehensive support for the operation of charging infrastructure. Investors need further guarantees in the form of operating subsidies for their investors given the amount of risk they take on with a 'build it and they shall come' strategy.

Typically, local governments have incentivised urban charging infrastructure roll out with methods such as VAT relief on construction costs or reduced-cost permitting processes. While this has encouraged deployment, it has largely been in areas with adequate existing

<sup>&</sup>lt;sup>9</sup> European Commission SWD (December 2020). Sustainable and smart mobility strategy

<sup>&</sup>lt;sup>10</sup> European Environment Agency (26 October 2022). Greenhouse gas emissions from transport in Europe

<sup>11</sup> WEF (September 2022). The European Union has cut greenhouse gas emissions in every sector – except this one

<sup>&</sup>lt;sup>12</sup> ACEA (March 2022). A European EV Charging Infrastructure Masterplan

<sup>&</sup>lt;sup>13</sup> Infralogic (February 2023).

demand as there has been little regulatory support for the operation of the assets once installed. This has resulted in the significant

In December 2022, the approval of the German government's so-called 'Deutschlandnetz' charging scheme, which importantly covers both upfront costs on ongoing operating costs, will be an important accelerator of charging infrastructure deployment. Other European governments should look to achieve similar incentives for operators<sup>14</sup>. Such incentives could replicate the more traditional infrastructure availability payment-style models, where investors are not taking on demand risk.

Such initiatives may encourage the crowding-in of private sector capital are therefore urgently required since currently capital flows into charging infrastructure are not nearly large or widespread enough to meet required roll-out levels. We expect infrastructure investors are likely frontrunners to finance the charging infrastructure network, but most investment opportunities do not provide suitable risk/return profiles for the asset class. Subsidy support should not only address installation, but also operation, given the EV market is still in the early stages of development.

## 3 / Financing transformation

neglect of areas which have not yet seen high EV penetration.

European transformation requires significant capital deployment, but high debt levels are limiting what governments can do. As a result, significant private sector capital will be required to fill the investment gap. However, the continent is heavily reliant on bank loans, which provide around 70% of corporate financing in Europe. But ever since the Global Finance and Euro sovereign debt crises this source of financing has been hampered.

We therefore see an opportunity for direct lending to step in and specifically in financing small and medium-sized enterprises (SMEs). Currently, only 10% of European SMEs' external financing comes from capital markets. Yet these enterprises form the backbone of Europe's economy accounting for more than half of Europe's GDP and employing around 100 million people<sup>15</sup>. While SMEs have no direct access to capital markets or other sources beyond credit, private investments via direct lending can become an alternative addition to bank loans, allowing SMEs access to capital needed for their transformation.

Direct lending, like private debt in general, has grown significantly since the Global Financial Crisis. McKinsey's estimate <sup>16</sup> that global private debt fundraising increased by more than four times in the past decade, from US\$44bn in 2010 to US\$192bn in 2021. Direct lending accounted for nearly 60% of overall private debt fundraising in 2021, exceeding US\$100bn for the first time. In addition, it has accounted for 73% of the overall growth in private debt fundraising over the last decade, growing nearly 40% per annum.

North America accounted for more than half of all direct lending fundraising between 2013 and 2020<sup>17</sup>. In Europe, this asset class has taken longer to develop, but the past few years may indicate a structural shift is underway. The growth in transaction activity in Europe has also enabled substantial diversification across sectors and geographies spreading from the UK, which was a first adopter in the region, to the core markets of France and Germany, and then expanding quickly across Benelux, Spain, Italy and the Nordics.

SMEs have a key role to play in the European transformation. Their growth is expected to be significantly accelerated by key technological, societal and geopolitical mega-trends, with SMEs providing products and services in:

- Technology and digitalization
- Redesign of supply chains and reshoring of production to reduce dependencies on other regions
- Healthcare that needs adopting to aging demographics
- Climate change and energy transition

Direct lending can also incentivize transformation through sustainability-linked loans. These are bonds and loans where a portion of the interest rate is linked to the borrower's ability to meet certain environmental, social, or governance targets. Typically, a borrower and a lender select key performance indicators (KPIs) that can be based on a credible methodology, be quantifiable and material to the borrower's core business. Then performance targets are established for each KPI and the interest rate ratchet is determined. This ratchet represents how much the borrower's interest rate will change based on whether they achieve their KPIs or not.

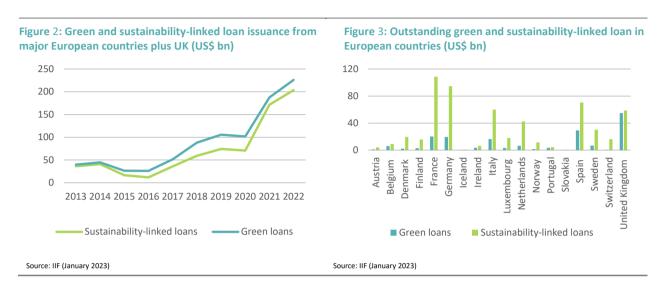
<sup>&</sup>lt;sup>14</sup> European Commission (December 2022). State aid: Commission approves €1.8 billion German scheme to roll out high power charging infrastructure for electric vehicles

 $<sup>^{15}</sup>$  European Commission (March 2020). Unleashing the full potential of European SMEs

<sup>&</sup>lt;sup>16</sup> McKinsey (March 2022). McKinsey Global Private Markets Review 2022: Private markets rally to new heights

<sup>&</sup>lt;sup>17</sup> Deloitte (2022). Deloitte Private Debt Deal Tracker Autumn 2022

The most common KPIs relate to the reduction of carbon emissions, increasing female representation of boards and independent third-party ESG ratings. In addition, more business specific KPIs include metrics around the reduction of specific types of waste, the increasing input of recycled materials and the increased use of raw materials, such as wood, from certified sources. Globally, sustainable loans outstanding hit US\$1.5trn in 2022, two thirds of which were sustainability-linked loans. The majority of these loans were issued in mature markets. Figure 2 shows the growth of sustainability-linked loans across major European countries, while Figure 3 shows which European countries have the highest proportion of green and sustainability-linked loans outstanding.



## 4 / Conclusion

The transformation of Europe is illustrated by the fact that the continent has delivered a reduction in greenhouse gas emissions of almost one third since 1990<sup>19</sup> compared to a 7% decline in the United States<sup>20</sup>. But Europe's climate ambitions in the decade ahead are even more demanding. We show how previous success can be accelerated with energy efficiency measures in the buildings sector and the electrification of the continent's road transportation.

Since private financing will be essential to fund the transformation, we show how the direct lending market can play a more central role since a large part of Europe's transformation needs to be undertaken by small and medium-sized enterprises that need improved access to finance. We see many opportunities for direct lending to finance the European technology sector and for SMEs to drive digitalization, reengineering of supply chains to boost resilience and the adaptation of the health care sector to address an aging population.

 $<sup>{}^{18}\,</sup>IIF\,(January\,2023)\,Sustainable\,Debt\,Monitor\,www.iif.com/Publications/ID/5220/Sustainable-Debt-Monitor-Poised-for-a-Rebound\,Monitor\,M$ 

<sup>&</sup>lt;sup>19</sup> European Environment Agency (June 2022). Is Europe reducing its greenhouse gas emissions?

<sup>&</sup>lt;sup>20</sup> EPA (July 2022). Climate change indicators: U.S. greenhouse gas emissions

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