



April 2019

How to find and spend money for saving our planet

If the climate were a bank, it would have been bailed out by now

In October 2018, international climate scientists warned the world of the grave consequences to our life support system on the Planet of global warming of 2°C - i.e. just 1°C more than has already occurred. The scientific consensus is that to limit global warming to maximum 1.5°C we have 12 years to drastically reduce greenhouse gas emissions, transform our economies and societies and be on track to become climate neutral by the middle of the century at the latest.

On climate change there seems to be a growing political schizophrenia. On the one hand there is the widespread recognition that 'climate change is real, is happening now and action is urgent'. On the other hand there is the 'economical-political realism' saying that there is simply not enough financing to achieve these ambitious goals within a decade.

We cannot afford to save our planet? Come on!

Ten years ago, in the European Union 5 trillion euro of public financial support was rapidly approved¹ for a bloated and fragile financial system with little or no conditions or reforms required from financial institutions.

We got the money, just that we need to spend it for climate action.

The following overview explains that

- the required investment is covered by cost savings, economic returns and other available funding sources
- how to ensure the economic costs of building the solution are borne by those who are part of the problem.

Acting now will even deliver a triple dividend: environmental, social and economic.

¹ European Commission State Aid Scoreboard 2012

Overview of funding demand and potential supply²

Note: Unless otherwise stated, the figures below are derived from EU Commission sources.³

Where to invest? (€ billions)	Where to look for funds? (€ billions)
<p>A Green Energy Union to achieve by 2030:</p> <ul style="list-style-type: none"> renewable energy electricity generation (70%), energy efficiency improvements of at least 40%: renovating 3% of existing buildings per year <p>Sustainable mobility</p> <ul style="list-style-type: none"> investing in railways, connecting European countries and regions with more accessible, more affordable and more frequent trains, including fast and night trains more public transport, sustainable urban planning and soft mobility solutions freight transport: shift for from road to rail and water electrification of transport system <p>Resource efficiency and circular economy:</p> <ul style="list-style-type: none"> Resource efficiency of 30% by 2030 Electrification towards 100% new renewable energy power <p>sustainable land-use and food systems</p> <ul style="list-style-type: none"> Reforestation programme: restore forests to their former status as homes and stores of carbon Support reduction of animal-based farming to non-animal based protein production in the EU Restoring soils and preserving wetlands a carbon sinks 	<p>Savings due to fossil phase out (340)</p> <ul style="list-style-type: none"> import costs (150 billion) Health and other costs avoided by keeping warming<1.5°C (190 billion) <p>Shift support from polluters towards sustainable activities & eliminating energy poverty (>105)</p> <ul style="list-style-type: none"> end direct subsidies given to fossil economy (55 billion) carbon tax + reform of EU emissions trading system (28 billion) new taxes etc. to fund climate action through EU budget - on corporates, unrecyclable plastics, kerosene, unsustainable transport modes, speculation ... (22 billion) shift European Central Bank asset purchases from “safe assets” to “safe and sustainable assets” (significant but hard to estimate) <p>Plugging the tax gap (400-1,000ⁱ)</p> <p>Close the private funding gap by shifting investment towards clearly defined long-term sustainable projects (180)ⁱⁱ</p> <p>Full integration of the EU Energy market (up to 30)</p> <p>Income tax on 2 million extra jobsⁱⁱⁱ (24)</p> <ul style="list-style-type: none"> Economic returns on profitable sustainable investments (significant but hard to estimate)
<p>Estimated total costs: < 300 billion</p>	<p>Estimated total benefits: > 1,100 billion</p>

2. For a summary of most figures see European Commission, “A Clean Planet for all”, November 2018 https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_en.pdf

3. The 1 trillion figure was cited, among others by Herman van Rompuy, president of the European Council, in 2013

ⁱⁱ European Environment Agency: “The forward-looking investment gap [...] is estimated to be about EUR 180 billion per year. It is important to bear in mind that these are not costs but productive investments with expected returns and multiple co-benefits”. <https://www.eea.europa.eu/articles/investing-for-sustainability>

ⁱⁱⁱ Assuming an average net monthly EU salary of 1500 and 40% tax rate

Good news: Potential supply of funds greatly exceed the demand

The Green New Deal requires less than was put on the table for banks. According to the EU Commission, the total additional investment required to a sustainable mode of living in the EU could be as high as € 175 to 290 billion per year⁴, or up to 3.2 trillion in total by 2030.

This is actually far less than the 5 trillion bail-out funds approved for banks at the height of the crisis.

Meeting the climate challenge will create jobs and pay economic dividends too

However, this amount is not “lost money”. It is an investment that generates not only the priority environmental and societal benefits, but an *economic* return that probably, by itself, covers the costs.

In addition, it is estimated that the transition will not only provide replacement jobs for those in the fossil industries, but generate 2 million jobs on top, improving the lot of households and also boosting income tax revenues.

In fact

- future cost savings for power
- future savings on health costs and other economic damage
- applying the “polluters pay” principle effectively
- or simply closing the tax gap - ensuring governments close loopholes and collect taxes due could each *individually* provide benefits that meet or exceed the costs of the transition we cannot afford not to make.

Meanwhile, the economic cost of NOT acting is estimated at *190 billion per year*⁵ *now and waiting until 2025 could add hundreds of billions*⁶ *more to the bill ... and the clock is ticking.*

Principles for funding the Green New Deal

Powering society off renewables will generate huge savings in energy costs (price, subsidies, health and environmental damage etc).

In places where the government has shown leadership, renewables are already achieving price competitiveness with fossil. Scale and investment in innovation can only lower the cost of renewable power.

⁴ European Commission “A Clean Planet for all”

⁵ EU Joint Research Council, Climate Impacts in Europe, 2014 - conservative estimate of impact of exceeding 3.5°CX of warming

⁶ The Economic Costs of Climate Change, OECD, 2015 - a central scenario of costs 2% of GDP by 2060

Demand-side business and household efficiency gains of 40% necessary to avoid temperature rises over 1.5 by 2030 will lower still further the marginal cost of renewable power.

These longer term economic gains could be brought forward through tax-neutral mechanisms such as transferable rebates redeemable when the gains start to materialise.

In the short term, shifting public support currently handed out to environmentally costly sectors - tax breaks guarantees, free issuance of emissions certificates, ECB asset purchases⁷ and other public subsidies - towards support for the growth the modern, sustainable economy will already cover most of the expected costs of the transition.

Effective taxation of environmentally damaging activities is also essential to ensure the incentive to phase out such activities as well as a fair reflection of their economic and social costs.

In the short to medium term, a concerted effort to tackle broader corporate and individual income tax evasion and avoidance, VAT fraud, the black economy and related money laundering, which is necessary anyway, would hugely improve public finances and further offset the required investment in sustainability.

A steadily rising minimum price for carbon is essential to ensure the economy adapts rapidly and efficiently to the requirements for sustainability.

This can be implemented through a combination of a revised EU Emissions Trading System (ETS) and carbon tax and should be complemented by border adjustments to charge for imported emissions and encourage transition in trading partners.

Fossil fuel suppliers pay any positive difference between the market price and the minimum level to the taxpayers.

Such revenues as well as other taxes on polluters can then be distributed to the public in a way that offsets the economic costs to ordinary people and sustainable sectors.

We still have the chance to tackle climate change - let's get started!

⁷ The UK Guardian reported in June 2017 for example that "Put together, carmakers, oil and gas companies, energy companies and motorways, make up 107 of the 271 different bonds bought since early December 2016." in relation to the ECB's asset purchase programme. Unfortunately the ECB will not disclose amounts

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ⁱⁱ European Environment Agency: “The forward-looking investment gap [...] is estimated to be about EUR 180 billion per year. It is important to bear in mind that these are not costs but productive investments with expected returns and multiple co-benefits”. <https://www.eea.europa.eu/articles/investing-for-sustainability>

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