

MONEY LOOKING FOR A HOME

HOW TO MAKE THE EUROPEAN CENTRAL BANK'S NEGATIVE INTEREST RATES PAY FOR BUILDING RENOVATIONS

by Uuriintuya Batsaikhan and Stanislas Jourdan



ABOUT POSITIVE MONEY EUROPE

Positive Money Europe is a not-for-profit research and campaigning organisation whose mission is to build a diverse and powerful movement pushing for a progressive reform agenda of the European Central Bank and Eurozone institutions so they support a fair, democratic and sustainable economy. Positive Money Europe was set up by Positive Money, a UK non-profit founded in 2010.

Positive Money Europe has an office in Brussels and is a registered interest group in the EU's lobbying transparency register (entry number 224435319949-22).

www.positivemoney.eu

ABOUT THE AUTHORS:

Uriintuya Batsaikhan is Economist at Positive Money Europe.
uuree.batsaikhan@positivemoney.eu

Stanislas Jourdan is Executive Director of Positive Money Europe.
stan.jourdan@positivemoney.eu

ACKNOWLEDGEMENTS

The authors would like to thank Brook Riley, Rens van Tilburg, Adrian Joyce, Eva Brardinelli, Caroline Simpson, Guillaume Joly, Jasper de Meyer, Déborah Faure, Luca Bertalot, Jennifer Johnson, Pierre Monnin, Chiara Colesanti Senni, Martha Myers and Miguel Carrion, and several central bank employees for their valuable input and expertise. They are also grateful for Eric Lonergan, who initially inspired this work.

First published February 2021.

Download:

This document is available to download as a free PDF at: positivemoney.eu

Permission to share:

This document is published under a creative commons licence:
Attribution-NonCommercial-NoDerivs 4.0 International License



MONEY LOOKING FOR A HOME

HOW TO MAKE THE EUROPEAN CENTRAL BANK'S NEGATIVE INTEREST RATES PAY FOR BUILDING RENOVATIONS

by Uuriintuya Batsaikhan and Stanislas Jourdan

Executive summary	4
Why building renovation matters for climate, people and the economy	5
Barriers to building renovations	6
State of financing for building Renovation	8
The role of bank lending to fund the renovation wave	10
TLTROs: Europe's secret weapon	13
How Renovation TLTROs pilot programme could work	16
How to redeploy existing financial subsidies	18
Final recommendations	19

EXECUTIVE SUMMARY

- The European Commission has rightly identified building renovation as a key priority to reduce carbon emissions across the EU and to reduce energy poverty. The Commission's "Renovation Wave" initiative sets ambitious objectives for doubling the pace of renovations in Europe, however, scalable funding is badly missing to deliver on those objectives.

- The slow pace of building renovations in the EU are due to barriers in funding (perception of high cost by banks and clients), obtaining expert knowledge and slow development of EU-wide legislative support and standardisation that encourage investments in energy efficiency.

- By essence, bank lending is the appropriate channel to respond to the financing of renovations, because it can be supplied in a very elastic and decentralised fashion. However households and businesses lack incentives to take up loans for renovation purposes, and it is often not profitable enough for banks to offer renovation loans at an affordable rate, given high transaction costs.

- The European Central Bank's (ECB) refinancing operations represent a hidden financial bazooka capable of unleashing bank lending towards energy efficiency (EE) housing renovations. Through its Targeted Longer-Term Refinancing Operations (TLTROs) programme, the ECB is currently lending €1.75 trillion to banks at a negative interest rate. Through this mechanism, the ECB is effectively providing banks a subsidy, without climate and environmental strings attached.

- To make the TLTRO programme support the objectives of the EU's Renovation wave, we propose that the ECB establish a Renovation Targeted Longer-Term Refinancing Operations (R-TLTROs) pilot programme. Under this proposal, the volume of bank lending for EE housing renovations will be given a discount rate that is even more accommodative than the current TLTRO rate of -1%.

- This pilot programme would create a powerful incentive for the banking sector to establish itself as a one-stop shop for clients wanting to renovate their home, while at the same time reducing internal administrative costs for themselves. It will also encourage customers to carry out deep renovation projects, by offering them a flexible and scalable way of financing those.

- While the Renovation TLTRO pilot programme would help mainstream access for funding for housing renovation, a better allocation of public resources devoted to energy efficiency could be envisaged. Existing Public funds and subsidies could be redirected towards public and social housing or for enhanced support for low-income households who are likely to fall out of the scope of the R-TLTRO initiative, because they are ineligible for bank loans.

- ECB President Christine Lagarde has committed to look into ways to green its TLTRO programme for its strategy review process due to be finalised by September 2021. However, an important precondition for this will be for the EU to provide a framework to standardise EE renovation loans, including a certification, standardisation and auditing system. The ECB and the European Commission should initiate technical cooperation to explore how to implement this proposal swiftly.

1. WHY HOUSING RENOVATION MATTERS FOR CLIMATE, PEOPLE AND THE ECONOMY

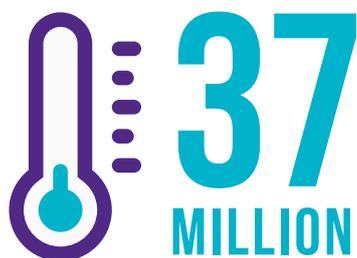
Buildings are responsible for 36% of the EU's greenhouse gas emissions (GHG) from energy. In order to meet the 2030 target of reducing GHG emissions by 55%, an enormous effort needs to be put into boosting energy efficiency in the built environment.

Tackling housing energy efficiency is also a social emergency, as 37 million households or over 82 million people in Europe are facing a situation of energy poverty, being unable to maintain a sufficiently high temperature in their homes.¹ The Covid-19 pandemic has made it even worse, with 58% of households already experiencing financial difficulties due to the pandemic.² With lockdown measures forcing people to stay home, the pandemic is clearly hitting hardest those who are living in the worst energy-performing buildings.³

Naturally, investing in buildings has direct macroeconomic effects on alleviating energy poverty, and providing a boost to employment and related manufacturing supply-chains. In

order to get to the 'Paris-required' tripling of the rate of renovations there is a need to add 2-4 million construction workers alone to the workforce, not counting all the additional workers needed in energy-efficient manufacturing supply chains (EC, 2019). Needless to say that the employment boost is much needed to overcome the effects of the pandemic-induced recession in the next few years.

By launching the "Renovation Wave" initiative, the European Commission (EC) has rightly identified this issue as a key priority. The initiative aims at a 60% cut in building emissions by renovating 35 million buildings by 2030.⁴ However, the Renovation wave does not have the financial firepower that is needed to reach climate targets and to unlock the economic gains from the initiative. This policy contribution offers a way to turbocharge the EC's efforts, by combining the Renovation wave initiative with the European Central Bank's (ECB) Targeted Longer-Term Refinancing Operations (TLTROs).



households or over 82 million people in Europe are facing a situation of energy poverty, being unable to maintain a sufficiently high temperature in their homes.

1. European Commission (2020) Towards an inclusive energy transition in the European Union: confronting energy poverty amidst a global pandemic, https://www.energypoverty.eu/sites/default/files/downloads/observatory-documents/20-06/epov_third_report_final_v2_compressed.pdf
2. European Parliament (2020) EU citizens want more competences for the EU to deal with crises like COVID-19, <https://www.europarl.europa.eu/news/en/press-room/20200525IPR79717/eu-citizens-want-more-competences-for-the-eu-to-deal-with-crises-like-covid-19>.

3. Monique Goyens, BEUC, <https://www.euractiv.com/section/energy/opinion/covid-19-means-tackling-energy-poverty-is-more-urgent-than-ever/>.
4. European Commission (2020) Renovation Wave: doubling the renovation rate to cut emissions, boost recovery and reduce energy poverty, https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1835

2. BARRIERS TO BUILDING RENOVATIONS

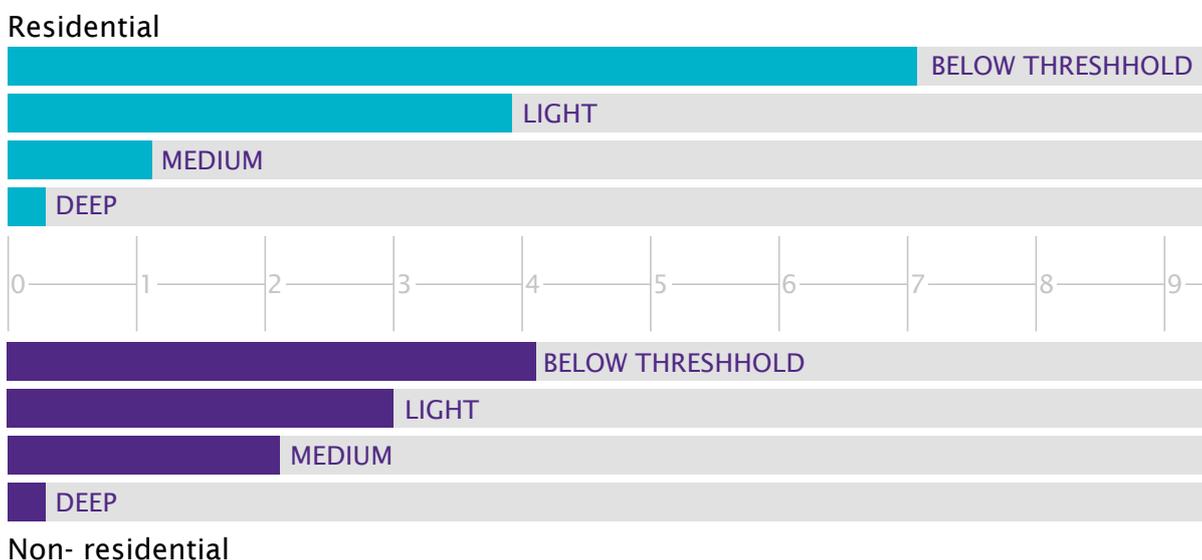
Building renovations need to take place across all kinds of buildings, residential and non-residential, privately and publicly-owned. In light of these ambitious goals, however, most member states are not on track to meet their energy renovation targets.

According to the latest available data, for the EU as a whole, the rate of all energy renovation projects stood at 12.3% for residential and 10% for non-residential buildings. In fact, 11% and 7.1% of these energy efficiency projects are classified as “below threshold” or “light”

renovations, while the remaining “medium” and “deep” renovations constitute only 1.3% for residential and 2.4% for non-residential buildings (Figure 1).⁵ Yet, deep or at worst medium renovations are needed to meet the 2030 objectives and fully reap the socio-economic benefits.

Even with all these renovations together, the rate of housing renovations will need to triple from the existing rate of around 1% per year in order to reach the EU’s 2050 climate targets (EC, 2019).

FIGURE 1. Energy renovation rates for residential and non-residential buildings in the EU.
(2012-2016 average, percent)



Source: EC (2019).

5. There are 4 categories of renovations, which depend on the primary energy (PE) savings. Below threshold comprise all renovations with PE savings <3%, light renovations those with PE savings from 3% ≤ 30%, medium renovations those with PE savings from 30% ≤ 60% and deep renovations those with PE savings > 60%.

The slow pace of the renovations can also be explained by the lack of legislative requirements at the EU level to renovate buildings.⁶

To address this and related challenges, the EC outlines six areas where public intervention is necessary:⁷

- **Structural barriers:** information on the characteristics of the building stocks;
- **Information barriers:** lack of understanding of energy efficiency in buildings and the potentials of renovations;
- **Market failures:** overcome the failure of building valuations depending on the energy efficiency, so that the value of the property mirrors its energy performance;
- **Lack of expertise:** technical expertise needed for energy retrofiting;

→ **Scale-up challenges:** increase the scope to municipal and regional level involving SMEs, housing associations, home owners, local banks etc.) and

→ **Regulatory barriers:** simplifying and standardizing permits and building certifications.

In the meantime, the EC is planning to introduce minimum energy performance standards through the Energy performance of buildings directive (EPBD) in 2021.⁸

All in all, what is holding us back is a combination of a lack of scalable financing, slow pace of legislative developments and technical and knowledge gaps when it comes to energy efficient (EE) building renovations.



ALL IN ALL,

what is holding us back is a combination of a lack of scalable financing, slow pace of legislative developments and technical and knowledge gaps when it comes to energy efficient (EE) building renovations.

6. See Brook Riley, Rockwool, <https://www.reutersevents.com/sustainability/why-buildings-are-linchpin-eus-climate-and-green-recovery-plans>

7. European Commission (2020), "Renovation Wave" Roadmap, public consultation, <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12376-Energy-efficiency-in-buildings-consultation-on-renovation-wave-initiative>.

8. European Commission, Energy performance of buildings directive (EPBD), https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en

3. STATE OF FINANCING FOR BUILDING RENOVATIONS

The additional investment needed to reach the EU 2030 building decarbonisation target is estimated to be €325 billion annually (up to €350 billion by other estimates), including €250 billion for residential and €75 billion for public buildings (EC, 2020). This compares with a current EU annual expenditure of €159 billion in energy subsidies (1.2% of GDP), of which more than half go to clean energy and one-third goes to fossil fuels. A tenth of these subsidies go to households in the form of energy consumption support.⁹

Through the Renovation wave, the EC proposes to increase the volume of EU funding for EE building renovations, as well as technical assistance, coordination and support for access to loans. In the Recovery and Resilience Facility (RRF), the European Council allocated around €250 billion for climate-related expenditures. This funding includes renovation and energy-efficiency expenditures, however there is no detailed information as to how much of this will go towards EE renovations. Even if all RRF funding was to be distributed for EE building renovations until 2026, the funding gap to meet the EU's building decarbonisation target would remain at around €1.7 trillion. This funding gap will have to be covered by the private sector.

There are already existing forms of public-private funding. Banks and credit institutions with the assistance of the public sector supply the necessary funding, as well as incentives to start EE housing renovation projects. These types of debt financing of EE investments already exist in many countries in the EU ("Residential Energy Efficiency Credit Line" in Bulgaria, "Public financing" in Estonia, and "Zero-rated eco-loan" in France, 110% "Superbonus" scheme in Italy)

(Bertoldi et al., 2020). Another example is Private Financing for Energy Efficiency (PF4EE), set up by the EC together with the European Investment Bank (EIB) (Box 1). Through this initiative, the EC and EIB offers funding and expertise for banks in 11 EU countries to scale up EE projects, with building renovations being one of the main aims. The EC committed €80 million for risk protection and expert knowledge and the EIB €480 million for long-term financing.¹⁰

While these loans are available for individual consumers¹¹, the majority is administered by large regional investment banks such as the KfW in Germany and the European Investment Bank. They remain insufficient for the scale of the challenge set in the Renovation wave.

Another interesting example of public regulatory support is the Hungarian National Bank's (MNB) green lending for housing renovation scheme. MNB's funding for renovation scheme asks banks to reduce interest rates by 0.3 percentage points

The additional investment needed to reach the EU 2030 building decarbonization target is estimated to be

€325 BILLION ANNUALLY

9. European Commission (2020), State of the Energy Union, https://ec.europa.eu/energy/sites/ener/files/progress_on_energy_subsidies_in_particular_for_fossil_fuels.pdf.

(green interest rate discount) for loans that are aimed at purchasing energy efficient homes and/or conducting energy efficiency retrofits. In exchange for offering low rates, the banks will be entitled to hold less regulatory capital: 5% for housing that has energy certificates of “BB” and 7% if it is “AA”.¹² However, the funding scheme applies to buildings with EE certificates of “BB” and above, meaning that less than 5% of Hungary’s building stock would qualify for this initiative, therefore significantly limiting the potential for renovation projects.¹³

All in all, the Renovation wave has the potential to help streamline and improve the existing subsidies by offering legislative requirements, classification and standardisation of EE

renovations projects. However, public funding for renovation will remain insufficient to scale up the overall volume of renovation projects, at least not to the pace intended in line with the objectives.

In this context, the success and delivery of the Renovation wave will largely depend on the ability of the private sector to fill in the current funding gap. And given the scale of the challenge, hoping that the banking sector will just do so automatically is not an option. The EC must consider further ways to enhance and improve the performance of the banking sector in supplying affordable bank lending for EE renovation purposes.

Another interesting example of public regulatory support is the Hungarian National Bank’s (MNB) green lending for housing renovation scheme



10. EIB, <https://www.eib.org/en/products/mandates-partnerships/pf4ee/>
11. The interest rate on the existing program, such as “Zero-rated eco-loans” in France, is paid by the Government and funds administered by private banks. However, the scale remains small (€387 million as of 2016) and has been declining (Hainaut et al, 2018).

12. MNB (2020) Notice on the criteria for the Preferential Green Capital Requirement Treatment for housing loans, <https://www.mnb.hu/letoltes/notice-preferential-green-capital-requirement.pdf>

13. Vaze, P. (2020) How the Hungarian Central Bank could help solve the energy efficiency puzzle: MNB goes for green on housing loans, <https://www.climatebonds.net/2020/01/how-hungarian-central-bank-could-help-solve-energy-efficiency-puzzle-mnb-goes-green-housing>

4. THE ROLE OF BANK LENDING TO FUND THE RENOVATION WAVE

Bank lending already represents the main channel of financing of home and commercial real estate purchases. With the right incentives, the banking sector's firepower can be mobilised to make the energy transition happen inside millions of buildings.

There are many already existing best practices when it comes to improving access to bank finance for EE renovation projects. These include below-average market rates, loan guarantees, long payback periods, collateral waivers and grace periods in case of payment failure (Mir-Artigues and del Río, 2014).

However, experience shows the willingness of consumers to take out EE renovation loans – even at cheap conditions, should not be taken for granted. The challenge for banks is not only to offer these loans, but also to actively promote them in a timely fashion to their customers. We envisage three main ways that customers could be incentivised to undertake EE housing renovations:

1. With mainstream repairs (consumption/personal loan to repair a broken pipe for instance can lead the customer to consider EE loans if conditions are attractive);
2. When taking out a mortgage loan, and if the individual is given information and terms to make their house more EE);
3. At the point of refinancing a mortgage, where the time of refinancing i.e re-negotiation interest rates, is key (that is when EE works could be integrated into energy audits and risk assessments).

In all instances, survey findings by banks tend to show that customers are often discouraged from taking on additional debt for EE renovation purchases. For instance, an ING Housing Survey on energy saving investments found that 70% of home-owners sought to carry out energy-saving investments, but only 10% planned on acting immediately. The main reason for not taking action was the limited access to funds.¹⁴ This is an indication that there is demand for renovation loans, however access to loans as well as limited understanding of financing, renovation and the savings that would accrue are real obstacles on the borrowers' side.

Indeed, according to EC's the public consultation on the Renovation wave, 92% of the respondents pointed to the lack of private financing as the biggest barrier to building renovation.¹⁵

From the banks' perspective, EE renovations entail long-term commitment with low returns, high administrative and transaction costs on smaller projects and they have a lack of information and technical expertise in EE renovation projects (Olmos et al, 2012, Bertoldi et al, 2020).

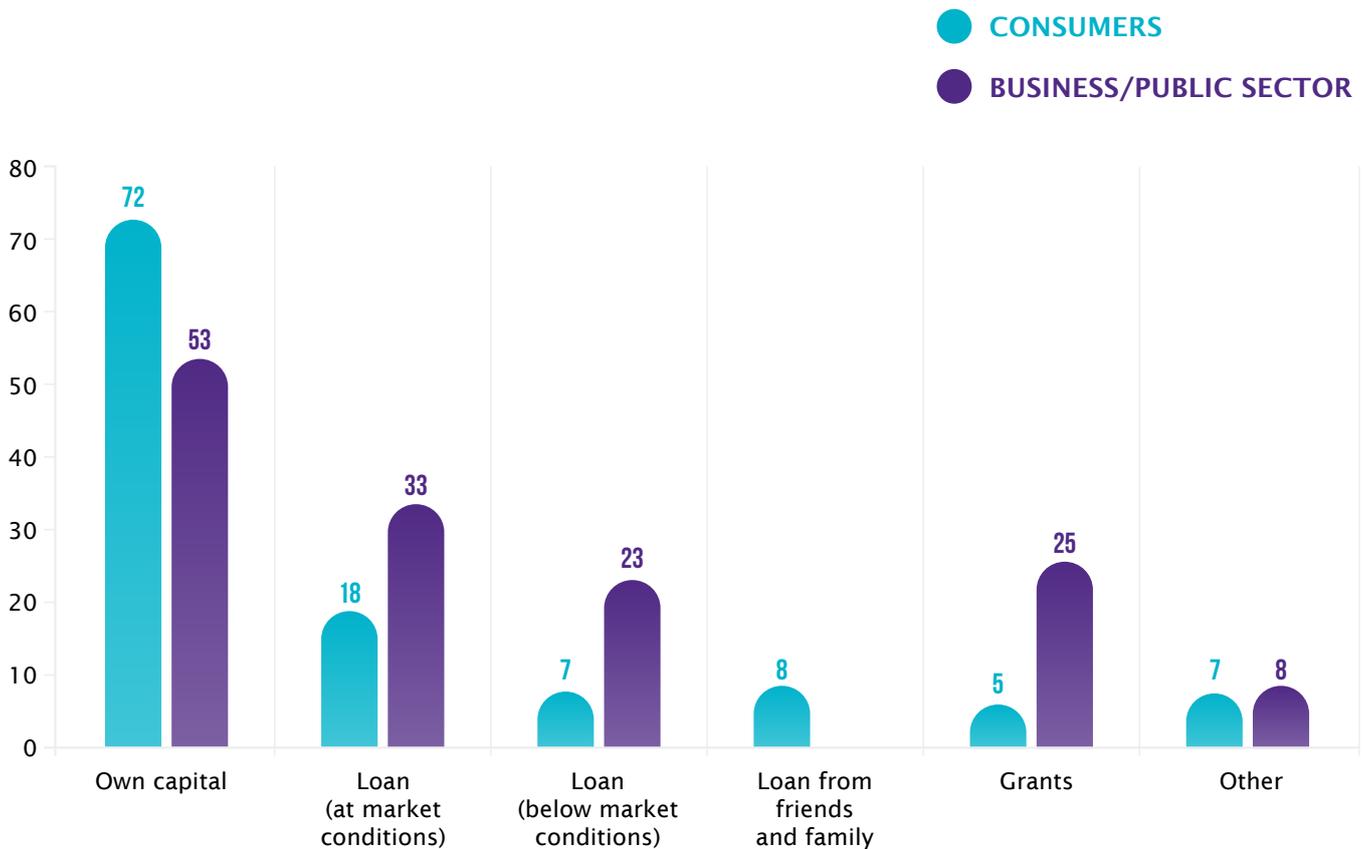
On the customer side, the challenges include stringent collateral requirements and high borrowing costs. Currently, the vast majority of individuals use their own capital to fund EE building renovations, which means that until they have sufficient capital they will not undertake these renovations (Figure 2) (EC, 2019).

14. ING (2018) "Sustainable housing too expensive", <https://www.ing.com/Newsroom/News/Sustainable-housing-too-expensive.htm>.

15. European Commission (2020) Renovation Wave Communication, https://ec.europa.eu/energy/sites/ener/files/eu_renovation_wave_strategy.pdf.

FIGURE 2. Existing funding sources for individual consumers and business/public sector.

(Percent of respondents)



Source: EC (2019) Survey of consumers, architects and construction companies.

Slow progress is further exacerbated by the fact that individuals don't have the expertise in EE renovations and don't have sufficient information on the administrative/regulatory requirements such as building certifications (Filippidou et al, 2017). As such, consumers are not sufficiently aware of the long-term energy costs that are saved, the increase in the value

of their home and direct and indirect positive impacts on their health and well-being. At the same time, bank employees are just as energy illiterate as the clients, even though there are mechanisms that are being set-up to provide expert knowledge for bank employees and bank clients, such as one-stop-shops (Box 1).

ONE-STOP-SHOP TO PROVIDE EXPERTISE FOR BANKS AND BORROWERS – ELENA FUND

As part of the PF4EE initiative, the EIB has partnered with BNP Bank Polska to provide €166 million for building renovations for Polish residential homeowners, housing associations and micro-farmers. The most interesting aspect is not only providing affordable loans, but most importantly that the bank hired energy efficiency experts through the ELENA fund to carry out up-to-date assessments and provide a package of expert services, such as energy audits and the preparation of technical documents. Such a system akin to a one-stop-shop (OSS) helps homeowners and housing associations to understand the technical side of renovations, while it helps the bank to outsource technical knowledge and use experts in designing new, affordable EE loan products. Polish BNP aims to create economies of scale to make profit on more affordable renovation loans compared to other banks in Poland. This OSS is useful insofar as pooling and providing expert knowledge for banks and consumers, while the funding side is specific to the market they operate in, thus harder to replicate.

Source: ELENA project factsheets, <https://www.eib.org/attachments/documents/eeffrb-factsheet-en.pdf>, <https://www.eib.org/attachments/documents/project-factsheet-energy-efficiency-financing-eeffcb-en.pdf>.

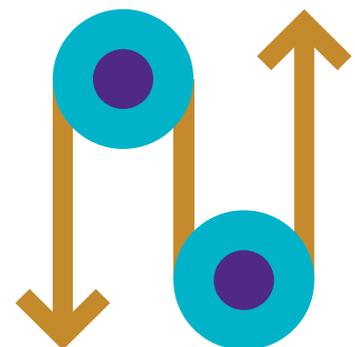
Furthermore, according to a Dutch study on housing renovations, with the current costs and investment schemes, making one's home sustainable is not beneficial (Schilder and van der Staak, 2020). In fact, for renovations-related investment to become financially attractive, either large-scale subsidies are needed or renovation costs need to decrease significantly.

It is even more difficult for low-income households that do not have their own funds or sufficient collateral to access loans for housing renovations, and these are households that are particularly prone to energy poverty. For low-

income home-owners, as well as for housing that includes low-income tenants, there needs to be some type of hybrid public-private funding mechanisms.

These financial, technical and legislative barriers and setbacks disincentivise consumers to take out additional debt for EE renovation loans. If the pace of innovations is to triple to meet the EU's climate targets, bank-based funding needs to step up immediately. Fortunately, the European Central Bank has the adequate policy tools to change this state of affairs.

For low-income homeowners and as well as for housing that include low-income tenants there needs to be some type of hybrid public-private funding mechanisms.



5. TLTROs: EUROPE'S SECRET WEAPON

The European Central Bank's policy is to ensure that the financial and banking sector provide a sufficient volume of credit to the economy in order to reach a level of inflation close to, but below 2% over the medium-term. Under normal circumstances, the ECB does that by adjusting its key interest rates and providing short-term liquidity to banks.

However, with the global financial crisis, the ECB has increasingly resorted to more unconventional measures. These include, broadly, the provision of liquidity to credit institutions at near zero and/or negative rates over longer-term horizons as well as asset purchase programmes, that include government bonds, corporate and asset-backed securities.

In simple terms, those programmes are meant to push banks to further ease lending conditions, so that more consumers and businesses can take advantage of cheap bank loans, which in turn would stimulate the economy by increasing aggregate demand.

Today, one of the most important policies of the ECB is the so-called Targeted Longer-Term Refinancing Operations (TLTROs). Simply put, TLTROs are refinancing operations by the ECB to commercial and retail banks in the euro area. In contrast to conventional refinancing operations by central banks, TLTROs are credit lines provided for long durations (up to 4 years until now) and at a very low rate, going negative since March 2016 with the announcement of the TLTRO II operations. The conditions and specific design of the TLTRO programme have evolved over time.

The first TLTRO programme was launched in June 2014, and since then the TLTRO has kept growing in importance for the ECB's monetary policy. In total, €2.525 trillion has been borrowed by banks since 2014, and €1.75 trillions was allocated during 2019/20 (Figure 3). There is no technical limit to how much TLTRO loans can be provided by the ECB to banks, although in practice the ECB limits the amount each bank can borrow to a certain "borrowing allowance", which is currently set at 50% of the stock of eligible loans as of the start of the TLTRO operation.

In total,

**£2.525
TRILLION**

has been borrowed by banks
since 2014

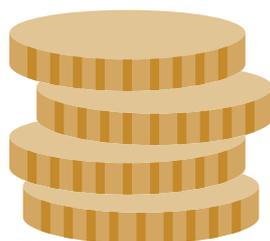
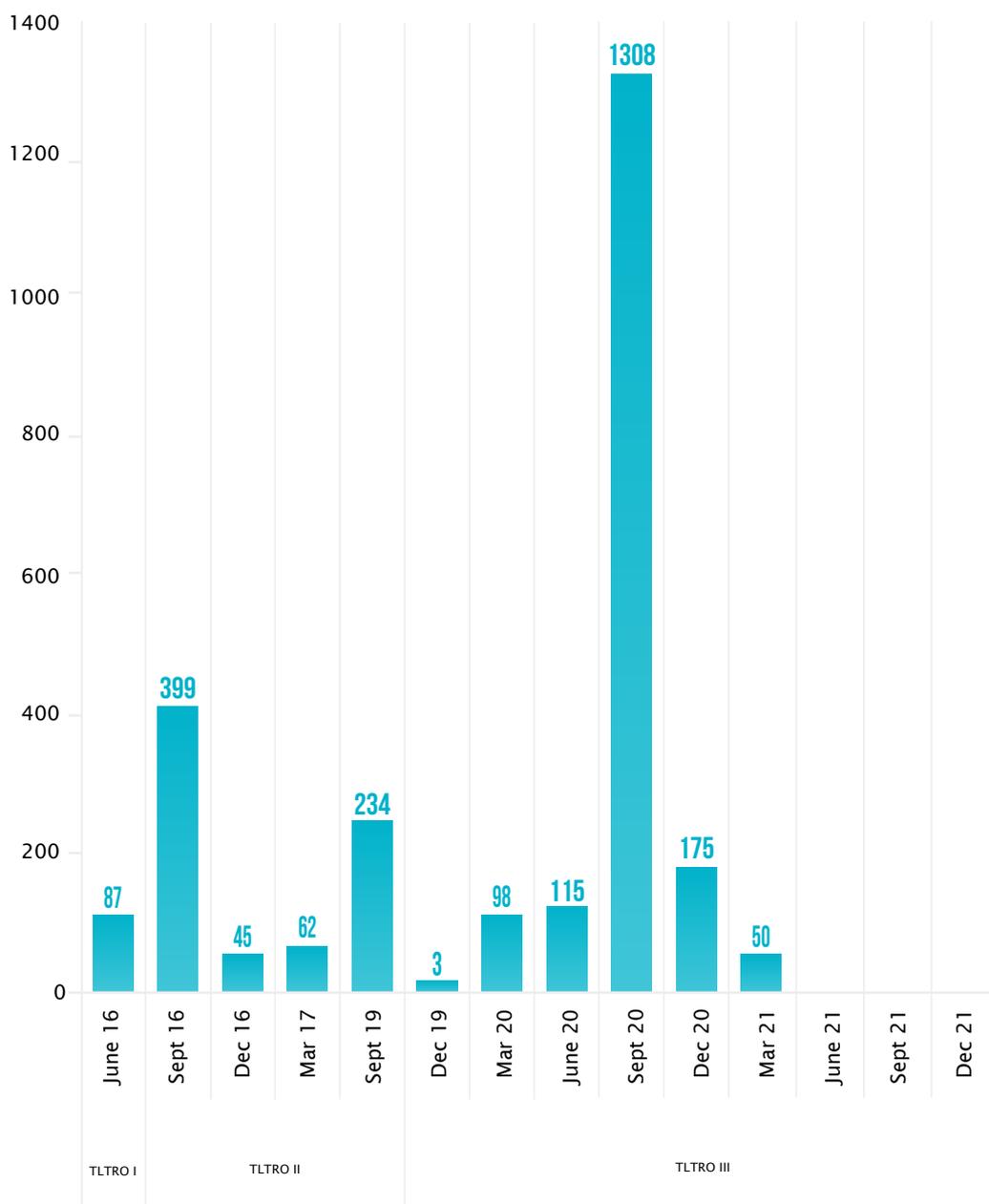


FIGURE 3. ECB's TLTRO allocation. (€ billion)



Source: European Central Bank

In September 2019, the ECB introduced a new key feature to the TLTRO programme by differentiating the interest rate banks have to pay depending on how much banks lend to the real economy over a certain period. If banks demonstrate they have increased their lending volume to a certain “lending performance

threshold”, then they get a preferential interest rate on their TLTRO borrowing. Currently, the preferential rate is set at -1.0%, that is, 50 basis points below the ECB’s deposit rate facility (the latter is the interest rate applied on banks’ reserves at the ECB).

16. Bloomberg (2021) The ECB is no longer a reliable cash machine for governments, <https://www.bloomberg.com/news/articles/2021-01-14/the-ecb-is-no-longer-a-reliable-cash-machine-for-governments>

Importantly, the fact that the current rate on TLTROs is lower than the deposit facility rate means that banks which are eligible to the preferential rate do benefit, in practice, of a net transfer from the ECB, which is estimated to be around €5 billion.¹⁶

This feature is explicitly meant to create an incentive for banks to maintain or increase a certain level of lending to the economy. To put it simply, the ECB is paying banks to borrow money, under the condition that they do not reduce their overall lending to the real economy.

Currently, and in the context of Covid-19, banks can qualify for the preferential rate by achieving a lending performance threshold of 0%, meaning they simply need to prove that their lending volume has not decreased during the reporting period. If banks do not fulfil the lending performance threshold, they “pay” the normal rate at -0.5%.

With €1.75 trillion borrowed by banks so far in 2019 and 2020 the TLTROs are ECB’s financial bazooka that not many people are aware of. Furthermore, in 2021 the ECB is scheduling four more TLTRO operations, with the same deeply accommodative conditions.

At the moment, TLTROs are blind to any environmental considerations. It is currently possible for banks to access free of charge funding regardless of whether they invest in renewables or in a coal mine. In fact, this remains unnoticed by the public given that the ECB does not disclose the amount accessed by banks under each TLTRO operation, making transparent observation of the financial flows nearly impossible.¹⁷ This blunt approach potentially locks the Eurozone in a highly carbon-intensive economy, instead of setting it on a more sustainable path.

With

€1.75
TRILLION

borrowed by banks so far in 2020, the TLTROs are ECB’s financial bazooka that not many people are aware of



17. The lack of transparency of TLTRO transactions was recently pointed out by European Securities and Markets Authority (ESMA), <https://www.esma.europa.eu/press-news/esma-news/esma-promotes-transparency-tlro-iii-transactions>

6. HOW A RENOVATION TLTRO_s PILOT PROGRAMME COULD WORK

The case for greening the TLTRO programme was first imagined early 2020 by Eric Lonergan¹⁸ and described as a “dual rate” regime of monetary policy. Positive Money Europe and Sustainable Finance Lab developed the concept further in a joint study (van ‘t Klooster and van Tilburg, 2020). The authors advocated for broadly greening the TLTRO programme in line with the EU Sustainable Finance Taxonomy. However, this ambitious approach will take years to become technically feasible, given the current timetable of implementation of the taxonomy and of the subsequent review of the non-financial reporting directive (NFRD), which will likely result in climate-related disclosure obligations for corporations.

However, as indicated in a letter by ECB President Christine Lagarde to MEP Bas Eickhout¹⁹ “[...] *banking products targeted to finance specific investments, such as real estate mortgages or energy efficiency loans, are closer to the logic underpinning the taxonomy and could in principle be more suitable for a direct assessment of their taxonomy-alignment.*”

We therefore propose to initiate a first step in the direction of Green TLTROs by adopting a pilot project dedicated to housing renovation: a renovation-targeted longer-term refinancing operations (R-TLTROs).

POLICY DESIGN OF THE R-TLTRO_s PILOT

Under the R-TLTROs pilot programme, the ECB would tweak the TLTRO rules by granting a deeply negative discount rate (below the current -1.0%) to banks on their portfolio of loans that is for EE housing renovations. To incentivise banks even further, an additional discount on the overall TLTRO rate could be offered in case banks achieve a certain lending threshold for EE renovation, in line with national objectives for housing renovation.

To further support banks, the ECB could also extend the duration of the TLTRO loans beyond four years, and towards the average maturity of loans for EE renovations projects. Moreover, the ECB could offer frequent TLTRO allotments beyond 2021 and in alignment with the objectives of the Green Deal.

Currently, mortgage loans are excluded from the TLTRO programme, as the ECB was rightly worried about fueling housing price increases.²⁰ By directing the R-TLTROs pilot programme towards loans dedicated to finance EE renovation work, our proposal does not require to include mortgages into the TLTRO programme.

The R-TLTROs should not lock-in the ECB’s negative rate policy. If in the future the ECB would decide to raise rates to counter a hypothetical raise in inflation, the R-TLTROs discount rate could be either maintained at its current level (while raising its main key interest rate), or the ECB could keep the R-TLTROs rate at a certain spread (eg. 100 basis points) below the key marginal refinancing operations (MRO) rate, so that the R-TLTROs rate could increase and yet at the same time remain significantly attractive for banks.

18. European Central Bank has one item left in its toolkit: dual rates, 1 January 2020, Financial Times <https://www.ft.com/content/885d0f9c-2319-11ea-92da-f0c92e957a96>
19. https://www.ecb.europa.eu/pub/pdf/other/ecb.mepletter210122_Bas_Eickhout-60afe68e80.en.pdf

20. In her letter, the ECB President Christine Lagarde responds to MEP Ernest Urtasun “loans for house purchase were considered to be adequately served by the banking sector, and their exclusion was designed to avoid contributing to potential financial imbalances in housing markets”, https://www.ecb.europa.eu/pub/pdf/other/ecb.mepletter201119_Urtasun-e834423206.en.pdf?645931b1f6812a31a2543aa8eb54b97b

EXPECTED BENEFITS OF THE R-TLTROs

As a result of our proposal, banks would receive TLTRO loans at even more accommodative rates if their lending contributes to the EU's EE renovation objectives. But the benefit of the proposal goes far beyond the creation of a reward for well-performing banks.

Providing cost-effective financing for banks and consumers

R-TLTROs will ensure that banks' operations when it comes to EE renovation loans become cost-effective through agglomeration. Moreover, as EE renovation loans become profitable, banks will be more incentivised to reach out to customers and incentivise them to take advantage of these loans. In other words, the ECB through R-TLTROs would effectively subsidise banks to the point of covering more than the transaction costs associated with small projects such as individual EE housing renovations.

Making banks the one-stop-shop for renovation

The R-TLTROs pilot would put commercial banks in a pivotal position in the overall policy framework, by effectively incentivising banks to become the one-stop-shop for EE renovation projects (see Box 1). This could be particularly effective for persuading customers taking up a mortgage to carry out renovations. Naturally, future or current homeowners are far more likely to engage in complex renovation works before they move in, that is, at the time of the house purchase. Other homeowners may engage in renovation work when renegotiating their mortgage if they are presented with the opportunity of reinvesting the windfall from the mortgage renegotiations into renovations.

More generally, banks would be incentivised to encourage clients to take up renovation loans by highlighting the costs saved from reduced

energy bills they have to pay in addition to their mortgage payments. With the value of the dwelling tied to its energy performance, renovation should also increase the overall market value of the home, and thus of the collateral of some of their customers.

A decentralized approach

Our proposal should also be compared with the existing myriad of public subsidies and support schemes for renovation. In comparison, our approach has the immense advantage of relying on a decentralized network of banks, thus unlocking real economies of scale instead of requiring complex centralised planning (although those fiscal subsidies could be re-focused as discussed below in section 7).

More incentives for deep renovation

The current draft criteria of the EU Taxonomy of sustainable investments specifies a renovation target of 30% of primary energy savings (light renovations), yet for the large-scale renovations to occur this target needs to be at least 60% and above (medium to deep renovations).²¹ We believe that a R-TLTROs programme stands higher chances of reaching this goal than the existing smaller-scale fiscal subsidies, which often incentivise homeowners to carry out only incomplete renovations. In contrast, the gain from a discount negative interest rate is by definition proportional to the value of the loan, and it is therefore more likely to persuade homeowners to conduct deep renovations with increased energy efficiency and cost-saving potential.

Overall the lending conditions offered to the potential customers may play a big role in the decision to renovate or not and whether or not to take up additional renovation loans at the time of purchase and refinancing. The R-TLTROs pilot can act as a real game changer to overcome the current barriers to energy-efficiency renovation: complexity and affordability.

21. Riley, B. and Joyce A. (2020) EU Taxonomy Proposals clash with Renovation Wave, (<https://www.eceee.org/all-news/columns/eu-taxonomy-proposals-clash-with-renovation-wave/>)

7. HOW TO REDEPLOY EXISTING FINANCIAL SUBSIDIES?

The R-TLTROs pilot programme could advantageously provide a eurozone-wide incentive to scale up funding for EE renovation projects. This raises the question of what should become of the multiple existing EU and national subsidy schemes, in particular those usually involving budgetary transfers or state guarantees.

The first approach would be to develop complementarity between them. For example, by conditioning eligibility to the R-TLTRO preferential rate to the take-up of at least one public subsidy scheme, thus incentivising banks to assist their customers in the process of taking up those subsidies. These public-private initiatives are especially relevant for multi-property buildings and apartment buildings, where EE renovations are more challenging, requiring the agreement and co-participation

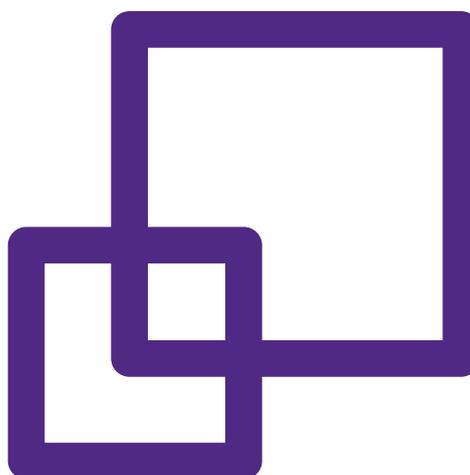
of all owners and/or tenants. Such additionality in public subsidies would further persuade customers to go for deep renovation projects as opposed to lighter ones.

Furthermore, funding in the existing public subsidy schemes could be redeployed more strategically by re-allocating it towards social housing and non-residential public buildings, such as schools, hospitals etc. Existing funds could also be increased and streamlined for low-income homeowners who are less likely to benefit from the R-TLTROs scheme, for reasons that they do not have sufficient collateral for accessing a bank loan. Further funding could be allocated to re-training programmes in order to build a qualified EE workforce (both white and blue collars) to sustain the expected demand growth.

The

R-TLTROs

pilot programme could advantageously provide a eurozone-wide incentive to scale up funding for EE renovation projects.



8. FINAL RECOMMENDATIONS

The ECB is currently carrying out a strategy review, and is looking at all options on how to incorporate sustainability into its policies. While this debate has focused so far on the inclusion of climate-related risks in the ECB's collateral framework, in September 2020, Christine Lagarde also promised to look into the potential of greening the TLTROs.²²

With a few technical specifications, the ECB could introduce a R-TLTROs pilot programme targeting EE housing renovations as part of its existing TLTROs programme. We estimate that this approach has the advantage of offering a gradual and pragmatic approach towards greening TLTROs while doing so in a way that will leverage funding for the EU's climate action where it is probably most needed and effective.

Other technical aspects need to be put in place by EU legislators:

- To prevent greenwashing, the European Commission must establish an EU standard for energy efficiency loans that are aligned with the upcoming Energy Performance of Buildings Directive (EPBD).
- To prevent fraud, the European Commission will need to build a certification framework, so that the quality of the underlying EE renovations paid for by the R-TLTROs pilot programme are being adequately checked by third parties. Auditing processes for banks (including in the context of their participation in the TLTROs) should also be updated accordingly.

- To facilitate reporting and impact evaluation, the EU's statistical framework and reporting requirement for banks would ideally need to be adjusted so that EE renovation loans are classified separately from mortgages or consumer loans²³, and are adequately accounted for in banks' reporting requirements and in central bank statistics. However, in the short term, the ECB could simply update the existing ad-hoc reporting template sheets for TLTROs.

While this contribution puts forward the policy roadmap to introducing the pilot programme, further empirical research is needed to quantify its impact by estimating the marginal effects it could have in terms of economic recovery and sustainable transition.²⁴

The Renovation wave is a great initiative whose success will be key for the overall ability of the EU to achieve its climate targets. However, without scalable funding streams, the Renovation wave's is at risk of disappointing expectations. Fortunately, the ECB's extraordinary policies such as TLTROs represent a great opportunity to fill the Renovation Wave's funding gap. The potential synergies between the Renovation Wave and the TLTROs programme by the ECB are simply too overwhelming to be ignored. The ECB and the European Commission should initiate technical cooperation swiftly in order to explore further how to maximise the full benefits of both initiatives.

22. See Monetary dialogue September 2020.

23. Currently mortgages that include refurbishments are classified as mortgages and thus excluded from TLTRO. Bank loans for the purpose of housing renovation are classified as standard consumer loans.



REFERENCES

Bertoldi, P., Economidou, M., Palermo, V., Boza-Kiss, B., & Todeschi, V. (2020) How to finance energy renovation of residential buildings: Review of current and emerging financing instruments in the EU. *Wiley Interdisciplinary Reviews: Energy and Environment*.

Böser, F. and Colesanti Senni, C. (2020). Emission-based Interest Rates and the Transition to a Low-carbon Economy (No. 20/337). *Economics Working Paper Series*, <https://www.research-collection.ethz.ch/handle/20.500.11850/421404>.

European Commission (2019) Comprehensive study of building energy renovation activities and the uptake of nearly zero-energy buildings in the EU, https://ec.europa.eu/energy/sites/ener/files/documents/1_final_report.pdf.

European Commission (2020) A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives, COM(2020) 662 final, https://ec.europa.eu/energy/sites/ener/files/eu_renovation_wave_strategy.pdf.

European Commission (2020) Roadmap on the public consultation on Renovation Wave, <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12376-Energy-efficiency-in-buildings-consultation-on-renovation-wave-initiative>.

European Commission (2020) State of the Energy Union, https://ec.europa.eu/energy/sites/ener/files/progress_on_energy_subsidies_in_particular_for_fossil_fuels.pdf.

European Commission (2020) Towards an inclusive energy transition in the European Union: confronting energy poverty amidst a global pandemic, https://www.energypoverty.eu/sites/default/files/downloads/observatory-documents/20-06/epov_third_report_final_v2_compressed.pdf.

European Investment Bank, <https://www.eib.org/en/products/mandates-partnerships/pf4ee/index.htm>.

European Investment Bank, ELENA project factsheets, <https://www.eib.org/attachments/documents/eeffrb-factsheet-en.pdf>, <https://www.eib.org/attachments/documents/project-factsheet-energy-efficiency-financing-eeffcb-en.pdf>.

European Parliament (2020) EU citizens want more competences for the EU to deal with crises like COVID-19, <https://www.europarl.europa.eu/news/en/press-room/20200525IPR79717/eu-citizens-want-more-competences-for-the-eu-to-deal-with-crises-like-covid-19>.

Filippidou, F., Nieboer, N., and Visscher, H. (2017) Are we moving fast enough? The energy renovation rate of the Dutch non-profit housing using the national energy labelling database. *Energy Policy*, 109, 488-498, <https://www.sciencedirect.com/science/article/pii/S0301421517304548>.

Goyens, M. (2020) Covid-19 means tackling energy poverty is more urgent than ever, BEUC, <https://www.euractiv.com/section/energy/opinion/covid-19-means-tackling-energy-poverty-is-more-urgent-than-ever/>.

Hainaut, H, I. Cochran, L. Gouiffes, J. Deschamps, A. Robinet (2018) Landscape of climate finance in France, low-carbon investment 2011-2017, I4CE – Institute for Climate Economics, <https://www.i4ce.org/wp-core/wp-content/uploads/2018/09/I4CE-Landscape-of-Climate-finance-in-France-1.pdf>.

ING (2018) Sustainable housing too expensive, <https://www.ing.com/Newsroom/News/Sustainable-housing-too-expensive.htm>.

Mir-Artigues, P., and del Río, P. (2014). Combining tariffs, investment subsidies and soft loans in a renewable electricity deployment policy. *Energy Policy*, 69, 430–442.

Olmos, L., Ruester, S., and Liang, S. J. (2012) On the selection of financing instruments to push the development of new technologies: Application to clean energy technologies. *Energy Policy*, 43, 252-266.

Riley, B. and Joyce A. (2020) EU Taxonomy Proposals clash with Renovation Wave, <https://www.eceee.org/all-news/columns/eu-taxonomy-proposals-clash-with-renovation-wave/>.

Riley B. (2020) Why buildings are the linchpin of EU's climate and green recovery, Rockwool, <https://www.reutersevents.com/sustainability/why-buildings-are-linchpin-eus-climate-and-green-recovery-plans>.

Schilder, F. and van der Staak, M. (2020) Woonlasten Neutraal koopwoningen verduurzamen. Verkenning van de effecten van beleids- en financieringsinstrumenten, Netherlands Environmental Assessment Agency PBL, <https://www.pbl.nl/sites/default/files/downloads/pbl-2020-woonlastenneutraal-koopwoningen-verduurzamen-4152.pdf>.

Van 't Klooster, J. and van Tilburg, R. (2020), Targeting a sustainable recovery with Green TLTROs, Positive Money Europe <http://www.positivemoney.eu/wp-content/uploads/2020/09/Green-TLTROs.pdf>

Vaze, P. (2020) How the Hungarian Central Bank could help solve the energy efficiency puzzle: MNB goes for green on housing loans, <https://www.climatebonds.net/2020/01/how-hungarian-central-bank-could-help-solve-energy-efficiency-puzzle-mnb-goes-green-housing>.



Rue Ducale 67
1000 Brussels
Belgium
Enterprise number: 0718.859.377

+32 2 880 04 49
info@positivemoney.eu
www.positivemoney.eu