

#### **Economic & Financial Analysis**

Economics

November 2020

# Green opportunities in a post-Covid world

# What Central and Eastern European

# countries should do next

#### Countries covered in this report

- Czech Republic
- Hungary
- Poland
- Romania
- Russia
- Turkey

### Contents

Green opportunities in a post-Covid world: What CEE countries should do next	3
Covid-19 opens door for green stimulus, but not yet in CEE	4
Environmental performance since 1990: a brief history	7
The catalyst for change	9
EU's reduction targets 2030	10
The green transition will be relatively costly	13
How to accelerate change? Carrot or stick?	15
Can Paris accord motivate Russia and Turkey to increase their climate ambitions?	19
A rare opportunity	20
Countries	23
Czech Republic	24
Hungary	26
Poland	28
Romania	30
Russia	32
Turkey	35
Disclaimer	37

#### Leszek Kąsek

Senior Economist, Poland Warsaw +48 22 820 5075 leszek.kasek@ing.pl

#### **Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE London +44 20 7767 1610 chris.turner@ing.com

Rafał Benecki Chief Economist, Poland Warsaw + 48 22 820 4696 rafal.benecki@ing.pl

Dmitry Dolgin Chief Economist, Russia and CIS Moscow +7 495 771 79 94 dmitry.dolgin@ingbank.com

**Muhammet Mercan** Chief Economist, Turkey Istanbul +90 212 329 0751 muhammet.mercan@ingbank.com.tr

Valentin Tataru Economist, Romania Bucharest +40 31 406 8991 Valentin.tataru@ing.ro

Jakub Seidler

Chief Economist, Czech Republic Prague +420 257 47 4432 jakub.seidler@ing.com

#### Peter Virovacz

Senior Economist, Hungary Budapest +36 1 235 8757 peter.virovacz@ing.com

### Green opportunities in a post-Covid world: What central and eastern European countries should do next

The Covid-19 pandemic has provided the biggest shock to the global economy since the Great Depression. Having undertaken unprecedented measures to support their economies, policy makers have also been presented with an unprecedented opportunity to shape the recovery in a more climate-friendly way.

In this report, we look at the role of green agenda in stimulus across Central and Eastern Europe (CEE) and examine some of the incredible opportunities and incentives on offer for a green policy response – especially for the CEE's European Union members.

This comes at a time when Poland, the Czech Republic, Hungary and Romania are being asked by the European Commission to present green-friendly national recovery plans – a pre-requisite for securing disbursements from the EU recovery fund. We will be looking to undertake follow-up analysis as the EU members submit their national recovery plans.

### Five key takeaways

CEE fiscal stimulus in response to the Covid-19 crisis has been large and comparable to that seen in Western Europe. Yet climate action has been relatively low on the CEE policy priority list. Indeed, in some countries, like Russia, the pandemic has forced the postponement of key climate goals.

2 The CEE last thirti There are

The CEE region, excluding Turkey, has been cutting greenhouse gas emissions over the last thirty years and progress can be demonstrated on sectoral sustainability measures. There are green shoots across the region, e.g. in transport in Hungary, energy in Romania, or agriculture in Turkey, Poland is just about to make a turnaround in its energy transition. Progress in the areas of agriculture, manufacturing and the circular economy are lagging.

3

The good news is that the region, especially the CEE's EU members, have a holistic framework for progressing towards climate targets. The Czech Republic, Hungary, Poland and Romania (CE4) - are subject to the EU's ambitious carbon reduction targets, while Russia and Turkey have signed the 2015 Paris climate agreement, though their intended climate pledges need to be made more ambitious.



Access to sizeable EU funds to support green transition in the early 2020s is a game changer for the CE4. Total EU grant funding available for the CE4 may be as much as 17 to 31% of GDP combined in 2021-27. Russia and Turkey may also consider strengthening their green agenda, given that the EU plans to introduce a carbon border tax too. More tangible reduction targets may emerge in late 2021 ahead of the next round of UN climate talks, dubbed COP26.



Rebuilding CEE economies after the Covid-19 crisis presents an exceptional opportunity for the region's policy makers to transition towards more climate-friendly policies. For example, Poland and the Czech Republic are being presented with a supportive path to a less coal-dependent future. Make no mistake, this is a huge opportunity, but will policy makers have the courage to take it.



# Covid-19 opens door for green stimulus, but not yet in CEE

The Covid-19 pandemic has given a huge negative shock to all the economies in the CEE. But at the same time, deep recessions have opened a window of opportunity for large public policy intervention. If properly targeted, this might divert economic growth onto a more sustainable, climate-friendly path.

Globally, some countries (e.g. Korea, Germany and France) have recently decided to redirect public funds more towards green activities. But some – due to a rising fiscal gap were forced to put some climate friendly investments on hold. Recently, we reviewed green policy measures in our reports on <u>Asian</u> and <u>European</u> countries.

In general, the region has neither promoted nor blocked environmental spending or support schemes amid the pandemic. However, a substantial drop in electricity demand associated with the economic recession has accelerated the phasing out of coal from the merit order of electricity suppliers. This is because generation in these units has turned out to be more expensive compared to renewable energy sources (RES) or imports from neighbouring markets, which rely more on renewable energy with almost zero variable costs (more details in our latest Poland's Green Monitor).

### Where was fiscal stimulus spent this year?

#### First and foremost, on protecting jobs and firms' liquidity.

As we wrote in early <u>May</u>, some CEE countries could afford policy responses similar to those in developed markets as their central banks kick-started QE support programs. They were aimed at preventing the side-effects of higher public borrowing needs i.e. mitigating the tightening of financial conditions, which would limit the positive impact of fiscal impulse.

The discretionary policy response to the pandemic included both:

- Direct support for companies and households through new spending, tax cuts or social security contributions moratoria, and
- Public loans and capital injections and guarantees to firms in trouble. They affected fiscal accounts both partially and indirectly.

According to our estimates (see Figure 1), Hungary mobilised the biggest anti-crisis package relative to the size of the economy, followed by the Czech Republic and Poland. However, Poland's fiscal response was the largest in the region and comprised two-thirds higher public spending and one third lower tax burdens (or lower social security contributions). The anti-crisis programs were largely addressed to SMEs as these businesses largely suffered from lower cash buffers than big firms.

	Poland	Czech Republic	Hungary	Romania	Russia	Turkey
TOTAL anti-crisis package (A+B)	11.3	12.4	13.6	8.1	4	10.3
A. Total above-the line measures	6.5	3.3	5.5	5.4	3.3	4.1
Revenue measures	2.1	1.8	4	0.3	0.8	3.4
Expenditure measures	4.4	1.5	1.5	5.1	2.5	0.7
B. Total below-the-line measures and guarantees	4.8	9.1	8.1	2.7	0.7	6.2
Loans and equity injections (below-the-line)	1.8	0.1	3.6	0	0.2	6.2
Public guarantees	3	9	4.5	2.7	0.5	-

#### Fig 1 CEE's anti-crisis response, as % of projected GDP in 2020, unless otherwise indicated

Source ING estimates based on national sources, IMF.

#### But was the CEE's anti-crisis response green? Not really.

Broadly speaking, green stimulus combines a need for a Keynesian-type response to economic downturns with green conditions attached. Based on our high-level review resulting from quite opaque fiscal and quasi-fiscal accounts during the pandemic, the CEE's fiscal stimulus so far was largely carbon neutral. It was neither green nor particularly supportive to carbon-intensive firms.

"The measures introduced were aimed at quick disbursements rather than searched for more refined green interventions." During the crisis, the CEE has primarily focused on supporting individual's incomes and firm's liquidity. The measures introduced so far were aimed at quick disbursements rather than refined green interventions. For example, in

Poland the payments totalling around 3% of GDP were made staggeringly within just two months - through the co-ordinated action of the government, development institutions (BGK bank and PFR fund), supported by a large quantitative easing program by the National Bank of Poland.

Assessing where green interventions could have been made in the CEE, we think it is useful to adapt the categorisation from the recent <u>IMF</u> report on EU's mitigation policies.

It takes a broader regulatory perspective on sustainable sectoral policy measures and investments. The policy actions towards sustainable economy include strengthening carbon pricing, prioritising investment in green infrastructure and innovation, reducing subsidies and tax exemptions for emissions-intensive activities, and promoting green finance.

In the <u>sectoral</u> report, the IMF provides a more detailed list of sustainable policy measures, which we grouped in Fig 2 into five categories (first column):



Energy and energy efficiency



Housing



Manufacturing and Circular Economy

Agriculture

Fig 2 also summarises progress in the implementation of these sectoral measures across CEE, using a simple traffic lights alike matrix. Although these measures were not introduced in the context of Covid-19, they confirm the rather moderate progress on sustainable policy measures, with agriculture and manufacturing and the circular economy lagging.

Further details country by country are presented in Annex 1.

#### Fig 2 Progress scorecard on sustainable sectoral measures

	Czech Rep.	Hungary	Poland	Romania	Russia	Turkey
Energy and Energy Efficiency	•	· ·			<u>.</u>	
<ul> <li>Investments in network infrastructure such as power grids (especially across borders) and district heating</li> </ul>						
<ul> <li>R&amp;D or early-stage technologies with large knowledge spill overs (e.g. new RES, power storage technologies, and carbon capture and storage)</li> </ul>						
<ul> <li>Financing for renewable plants with large fixed costs, or operated by small firms or households</li> </ul>						
<ul> <li>Removing existing regulatory hurdles to help unlock green investment</li> </ul>						
Regional development and active labour market policies for displaced workers.						
Transport						
Fuel taxes						
Emission standards for vehicles						
<ul> <li>Incentives for cleaner cars (fiscal instruments, fee bates, development of charging infrastructure).</li> </ul>						
<ul> <li>Modal shifts. Policies to promote cleaner transportation modes, such as walking, cycling, and mass transportation</li> </ul>						
Housing	•			· ·		
<ul> <li>Speeding up the renovation rate by harmonizing and regulating energy efficiency ratings and increasing availability of building efficiency information</li> </ul>		·				
Green mortgages						
<ul> <li>Means-tested, low-interest loans or grants for renovation energy-dependent property taxes</li> </ul>						
Manufacturing and Circular Economy	· · ·					
<ul> <li>Carbon pricing as critical signal to spur investments in clean technologies and carbon border tax in the absence of global carbon pricing</li> </ul>						
<ul> <li>Complementary policies: increasing public R&amp;D and support private R&amp;D in green technologies, removing regulatory hurdles, improving market transparency and coordination, addressing investment constraints of the financial sector (public guarantees and insurance schemes)</li> </ul>						
Agriculture						
Measures aimed at shifting consumer choices away from beef and dairy						
<ul> <li>Removing tax expenditures favouring emission-intense products and introducing standards and measures to raise awareness, such as CO2 footprint labels on food.</li> </ul>						
 Legend on colouring						

#### Scope for improvement Moderate progress Significant progress

Source: ING selection based on IMF paper and the authorities' data and public sources.

International experience with green stimulus during the pandemic include measures to incentivise climate friendly behaviours of: (i) households (e.g. subsidising heat pumps or expansion of electric vehicle purchase incentives), (ii) businesses (e.g. funding for hydrogen projects), and (iii) public entities (renovation of public buildings, installing solar and storage facilities). Also, a large share of green stimulus packages presented by global leaders (France, Germany, Spain) constitute expenses on electromobility, including the development of green hydrogen - obtained during the electrolysis process using excess renewable energy from wind or solar.

On the other hand, although the CEE has not yet used green stimulus during the pandemic, at least they have largely maintained existing programs during these difficult times. For example, Romania continued its Casa Verde housing renovation program, Poland continues to accelerate small-scale PV and RES electricity auctions, Hungary maintained the program for purchasing new electric cars, and Turkey has made more efforts to build new electric cars. All this constitutes quite a good starting position for the change and awaits catalysts (as we discuss later) in the form of the European Green Deal for CE4 and more tangible greenhouse gas reduction commitments for Russia and Turkey in line with the Paris agreement.



### Environmental performance since 1990: a brief history

#### Positively correlated with rising incomes

Environmental performance has not ranked very high in policy priorities for the CEE governments over the last three decades. But it has improved substantially as a positive by-product of a transition to a market-oriented and more resource-efficient economy. In the 2020 edition of Yale University's Environmental Performance Indicator (EPI), all the CEE countries we cover in this report are ranked in the Top 60, except Turkey (#99) out of 180 countries reviewed globally. The EPI is a synthetic measure weighted 40% to environmental health (e.g. on air and water quality), and 60% to ecosystem vitality (e.g. on biodiversity and greenhouse gas emission changes).

From the early 1990s, greenhouse gas and energy trends largely reflected underlying economic developments in the region: rising incomes, a structural shift from energy-intensive industries towards services, and more efficient energy use. These were driven by technological gains, more adequate prices (gradually liberalised to reflect global trends), national energy taxes and carbon prices.

Indeed, carbon pricing is already a reality in the EU members thus far.

#### Environmental performance and GHG emissions trends 1990-2018 vs income levels and GDP growth in CEE

#### Fig 3 Environmental performance is linked to income levels Fig 4





(EPI score for German is a proxy for the EU as a whole)







Source: Eurostat, Carbon Tracker (data for Russia), World Development Indicators.

#### Drivers of carbon emission trends in CEE

Carbon emission trends across the region over the last three decades have been driven by various forces, pushing emissions up - growing incomes and – only in Turkey (significantly growing population), or down - due to a structural shift in the economy towards services, energy efficiency improvements, and a shift to less carbon-intensive fuels (e.g. from coal to natural gas or renewable energy sources (RES)). Carbon emissions is the major greenhouse gas in CEE (above 80%) and its emissions are predominantly energy-related.

The progress achieved by the CEE over this period was impressive. Yet there is still significant scope for improvement if compared to the EU average, not to mention the long-term carbon neutrality goal.

Also, these comparisons serve as a reminder of the huge energy waste at the outset of economic transition. And the structural changes in Turkey were less pronounced than for the rest of the region, which is reflected in the emissions trends from 1990. It is worthwhile to note that Turkey experienced population growth of about 50%, contrasting with demographic trends in CE4 and Russia. Their populations were either stable (Czech Republic, Poland, Russia) or shrinking (Hungary and Romania) during the last three decades.

Drivers of carbon emissions in CEE in 1990-2016 (carbon intensity, economic structure, energy intensity, carbon intensity of energy)







economy











Note: This review is broadly in line with the Kaya identity, which decomposes total carbon emissions levels into a product of four factors: population, GDP per capita, energy intensity (energy use per unit of GDP), and carbon intensity (emissions per unit of energy used). Source: World Development Indicators.





### The catalyst for change

#### EU's climate policy drives CE4, Paris accord nudges Russia & Turkey

The colour of fiscal intervention during the pandemic needs to be placed in a broader context of the EU's ambitious climate policy for the CE4 and policy commitments from the 2015 Paris Agreement for Russia and Turkey (E2). The CE4 are subject to the EU's climate and energy policy framework and its energy policy and support schemes to abate greenhouse gas emissions reflect the EU agenda.

"The major difference between CE4 and E2 is the functioning of the EU Emissions Trading Scheme (EU ETS)." The major difference between CE4 and E2 is the functioning of the EU emissions trading scheme (EU ETS). This covers carbon emissions from around 11,000 large power and industry combustion installations across the EU and

presents legally-binding emissions targets to sectors outside the EU ETS. Non-ETS targets are defined at the country level and cover GHG emissions from transport, housing, and agriculture, and small-scale combustion units. In addition, there are various operational targets referring to RES or emission standards for cars, buildings or industrial processes.

As part of the EU climate policy framework, all EU members have adopted renewable energy targets (RES), defined as a share of RES in final energy demand. The CEE promotes this deployment of clean energy with various policy instruments such as RES electricity auctions (Poland, Hungary, Russia or Turkey), feed-in-tariffs (Czech Republic). However, direct financial incentives are scarce.

For example, Poland introduced a relatively modest but very demanded PV support scheme just in mid-2019.

"Thus far, there have been scant national policy measures to promote smart energy technologies" Also, the region has been very reluctant to promote RES through tax instruments, grid incentives or net metering. Some of these are in place only in Poland and Turkey. Thus far, there have been scant national policy

measures to promote smart energy technologies (smart grids, electrified transport, energy storage). In spite of broad media debates, concrete measures to promote advanced transport across the CEE have been either very modest or non-existent so far (vehicle purchase incentives, blending mandates, infrastructure deployment).

However, the EU's Green Deal provides a huge opportunity for CE4 to accelerate climatefriendly policies.



### EU's reduction targets 2030

#### More ambitious targets 2030 in line with 2050 carbon neutrality goal

The green agenda and key sectoral policies in the CE4, especially in the energy sector, transport, and agriculture, are driven by the EU's climate policy framework. The scheme below summarises the main elements of the EU's climate policy targets for 2030.

In mid-September, the EC proposed an increase in the EU's headline reduction target in 2030 from 40% to 55% relative to GHG emissions levels in 1990. If adopted, the increase in the headline 2030 GHG emission target will be "transposed" into a higher joint target in the EU Emissions trading scheme (covering emissions from power and industry), and higher national targets in non-ETS sectors.





Source: ING compilation based on EU publications.

#### This will translate into higher carbon prices in the 2020s and ...

Carbon emissions in a cap & trade system, such as the EU ETS, by definition are met.

This is because the supply of carbon allowances (EUAs) will be gradually reduced to reach 2030 targets (currently 43% reduction compared to 2005 emission levels), and then towards 100% reduction target (in line with net zero emissions target in 2050).

Recently, the EUA's price approached EUR 30per metric ton, doubling compared to the lows in March at the outset of the pandemic. According to <u>Bloomberg</u>, the more ambitious 2030 targets may push the EUA price towards EUR 80 per metric ton through 2030.

"higher carbon prices are transposed into higher electricity prices for those carbonintensive economies such as Poland," Inevitably, higher carbon prices are transposed into higher electricity prices for those carbonintensive economies such as Poland, where around 80% of electricity is generated from coal. And to a lesser extent this is also the case

in the Czech Republic and Romania. A larger exposure to high carbon prices inflates wholesale electricity prices, and indirectly impacts prices across all economic sectors.



#### Fig 12 Prices of EU allowances during the recent year (Oct 2019 – Oct 2020)

"Poland is the only country in the CE4 region with no nuclear power, similar to Turkey." Poland is the only country in the CE4 region with no nuclear power, similar to Turkey. This is a major electricity source in the remaining CE4 regions and also important in Russia, where natural gas is a dominant fuel for electricity

#### generation.

The share of RES, including hydro, in the electricity system is the highest in Romania, partly thanks to good hydro conditions and investments in wind and solar energy over recent years. In Russia, RES other than hydro is virtually non-existent given its huge fossil fuel endowments.

Although combustion of natural gas generates around 50% less carbon emissions than coal, it is still a fossil fuel, and hence its use is not consistent with 2050 climate neutrality targets. In the EU, natural gas is regarded only as a bridge fuel with limited possibilities of support from EU funds or loans. In late 2019, the European Investment Bank (EIB) announced it would halt new financing of fossil-fuel energy projects from the end of 2021.

#### Electricity mix in CEE in 2019





Source: World Development Indicators

#### ...national non-ETS targets 2030 will be raised too

To curb emissions not covered by the EU ETS (around 55% of total greenhouse gas emissions in the EU), EU members will need to introduce domestic sectoral policies, standards and investments.

While the CE4 countries, except Poland, are set to meet their 2020 targets, meeting 2030 targets will be more challenging. In contrast to the 2020 targets, the currently legislated 2030 targets assume absolute reductions in emissions compared to 2005 rather than a controlled increase in emissions. Based on the current directives, all CE4 will need to emit less greenhouse gases in non-ETS sectors in 2030 than in 2005. In practise this means a range of adjustments from -14% in the Czech Republic to -2% in Romania.

But these targets are to be tightened further in line with the increase of the EU's headline reduction target from 40% to 55%. Also, the effective carbon abatement effort needs to consider underlying economic trends in catching up economies - faster growing economies usually require dedicated measures to control emissions.

In line with the more ambitious headline target 2030 for the EU, the operational targets will be more demanding. Again, all CE4 except Poland, are set to meet their 2020 RES targets, measured as a percentage share of RES in final energy demand. The national targets for 2030 are to be inevitably higher even though they will not be legally binding.

However, the currently legislated target of 32% for the EU needs to be implemented by other measures available to the EC. Therefore, the more ambitious 2030 targets will require a faster deployment of the clean energy supply in the CE4.

Fig 14 CE4's non-ETS reduction targets and renewable energy sources targets 2020-30



Note: The EU's non-ETS target 2020 deviates from the headline 10% target due to changes in the scope of EU ETS emissions. Source: Eurostat.



### The green transition will be relatively costly

#### New energy infrastructure will be relatively costly for CEE region

The EU's future power system is targeted to be zero emission, with decentralised small local installations and well inter-connected to assure stability and balancing at any time.

It is to rely mainly on renewables and new technologies which are: a) currently at a relatively low-scale (e.g. offshore wind) or b) are to emerge in the future such as energy storage, possibly small modular reactors working on depleted nuclear fuel, hydrogen or carbon capture and used to absorb emissions from the remaining fossil fuel installations.

Naturally, new electricity generation will require huge investments in electricity grids -

"new electricity generation will require huge investments in electricity grids" both long distance transmission lines and national distribution networks. The gradual phase out of fossil fuels in the power system, and more broadly in the energy systems, will

translate into lower bills of net importers (all except Russia), and lower proceeds in Russia as a large net exporter.

# ...but the welfare loss can be cushioned by compensatory transfers and offset by associated benefits

According to a recent <u>IMF report</u>, Eastern Europe, and in particular Poland, will face higher adjustment costs from the EU's greenhouse gas mitigation policy. Yet on the other hand, the region has the most to gain due to the benefits associated with cleaner air because climate action helps combat local air pollution which a serious issue in the region.

Also, if carbon revenues were used to reduce distortionary labour taxes, the expected welfare loss associated with carbon pricing would be less pronounced. Higher carbon prices broaden the scope for a growth-friendly tax policy reform. For example, in 2020 Poland is to collect an equivalent of 0.6% of GDP in revenues from its EUA's auctions, which constitutes 3.6% of total state budget revenues.





### Fig 16 Costs and domestic net benefits of a €/tonne carbon price in 2030, selected countries - % of GDP



Note: Data labels in the figure use International Organisation for Standardisation (ISO) country codes. EER = Eastern Europe; EU = EU average; WER = other Western European countries Source: IMF Source: Updated from IMF (2019b)

# Carbon border tax will protect CE4's competitiveness if other regions don't follow the EU's green model

Uneven climate action across major global markets inevitably raises the risk of a loss in competitiveness.

"a carbon border tax adjustment (BTA) mechanism can prevent an increase in emissions outside the EU" In the absence of comparable carbon prices in other markets, a carbon border tax adjustment (BTA) mechanism can prevent an increase in emissions outside the EU (i.e. preventing the risk of 'carbon leakage').

Such a mechanism could equalise the cost of carbon emissions for domestically produced and imported goods and avoid distortions in competitiveness. The introduction of a BTA in the EU (our colleagues discussed this in another <u>report</u> earlier this year) constitutes an important element in the amended climate policy 2030.

For the heavily trade-exposed CE4 region, the BTA would be a critical measure.



### How to accelerate change? Carrot or stick?

#### The carrot: New green EU funds a CE4 game changer

With CEE emergency domestic support measures set to expire in late 2020 or early 2021, new EU funds approved by European leaders in late July can be of great support to economic recoveries.

Inevitably, because the EC opted for the Green Deal and advanced digitalisation as its crisis response strategy, the CE4's recovery plans, to be submitted to Brussels in the coming months, will need to be in line with these priorities – green and digital transformation.

As we reported <u>in late July</u>, individual CEE countries will receive grants totalling between 4% to 8% of their 2018 GDP from the new EU recovery fund. Apart from that, preferential loans might be tapped with country allocations of around 7% GDP. These amounts come on top of traditional EU structural funds and EU support from the Common Agricultural policy and dedicated funds associated with energy transformation.

The latest EC <u>assessments</u> of the National Energy and Climate plans through 2030, submitted by the member states in 2019-20 indicate non-returnable potential funding from EU sources for each member state. Figure 17 presents the indicative country envelopes for 2021-27 in euros, unless otherwise indicated. Figure 18 shows our estimates of these amounts as a percentage of 2018 GDP.

(In our estimates, we discounted the amounts expressed in current euro by 10%). Over the next seven years, the CEE countries can get EU funding worth from 17% of GDP (2.5% of GDP per year if equally distributed) in the Czech Republic to 31% of GDP (4.5% of GDP per year) in Romania.

	Czech Republic	Hungary	Poland	Romania
Structural Funds	19.8	21.7	72.2	29.2
Common Agricultural Policy	7.9	11.7	31.2	20.6
Recovery and Resilience Facility (in 2018 €)	6.7	6.3	23.1	13.8
Just Transition Fund (in 2018 €)	1.5	0.2	3.5	1.9
Modernisation Fund	2.8	0.3	1.9	3.0
EU ETS auction revenue	0.6	0.2	1.9	0.7

#### Fig 17 Potential funding from EU sources to CEE in 2021-27, in current €bn

Source: ING based on EC's assessments of the NECPs for CEE.

#### 40% 31.2% 27.7% 30% 24.7% 17.2% 20% 10% 0% Czechia Poland Romania Hungary Structural Funds Common Agricultural Policy Recovery and Resilience Facility Just Transition Fund Modernisation Fund EU ETS auction revenue TOTAL

#### Fig 18 Potential EU funding to the CEE countries in 2021-27, as % of 2018 GDP

Source: ING estimates based on EC's assessments of the NECPs for CEE.

The EU recovery plan is centred on green investment and earmarks at least 30% of available funds for climate action. This reflects the commitment of the European Council to mainstream climate action into all EU programmes and instruments and an overall target of at least 30% of EU funding to support climate objectives. This compares to a 20% target in the current EU budget 2014-20.

"The 'green EU funds' will be channelled to the EU members mainly through the Recovery and Resilience Facility (RRF), of which 70% will need to be used by end 2022." The 'green EU funds' will be channelled to the EU members mainly through the Recovery and resilience facility (RRF), of which 70% will need to be used by end 2022. If the funding were distributed evenly over the seven years, the CEE would receive between 0.7% of GDP (Czech Republic) to 1.3% of GDP (Romania) per annum

for climate-related grant spending. But because of the frontloading mechanism of the RRF, the EU grants in 2021-23 will be substantially higher.

The new EU funding 2021-27 will also include funding the Just Transition fund of €10bn (JTF), created by the EC in early 2020 to support 41 European coal regions (according to NUTS-2 breakdown) in 11 countries, of which six are located in Poland, two in the Czech Republic, two in Romania, and one in Hungary.

These numbers, however, might disguise the real challenge in transitioning away from coal in CEE, in particular, in Poland. According to EU's Joint Research centre, coal activities of the energy sector in the EU provide direct jobs to about 240,000 people: about 185,000 are employed in the mining of coal and lignite and about 55,000 in coal-and lignite-fired power plants. The number of indirect jobs is of the order of 215,000. Poland sees the highest employment rate in coal mining (over 99,000), followed by Germany (25,000), Czech Republic (18,000), Romania (15,000) and Bulgaria (12,000). The JTF is the first pillar of the €100bn Just Transition Mechanism, to be mobilised based on EU guarantees and loans from the EIB and national development banks. The remaining sources (Modernization Fund and revenues from EU ETS auctions) are in place already in the current budgeting period.

Regarding "a carrot" from the EU recovery fund, the EC created a procedure 'how to eat it swiftly' for the member states. In mid-September, the EC issued a detailed <u>guidance</u> to the member states on recovery and resilience plans, which are due no later than April 2021, together with their <u>template</u>.

"CE4 governments will need to explain to what extent the proposed investment projects will contribute to the green and digital transitions." Like other countries in the EU, CE4 governments will need to explain to what extent the proposed investment projects will contribute to the green and digital transitions.

Also, they will need to clarify how each investment and reform contributes to the 30%

climate mainstreaming target. While proposing these measures, EU members are to take into account the climate and environmental objectives defined in the recently adopted <u>Taxonomy</u> Regulation and relate to the Country Specific Recommendations (CSRs).

The latest <u>CSRs</u> for all EU members were published in late May, as countries were intensively struggling with the adverse health and economic impacts of the pandemic. The CSRs listed key recommendations for every individual country. With obvious recommendations to sustain the economy and mitigate the negative employment impact, the EC recommendations also referred to green and digital transition.

Their review in the country pages in Part 2 sheds some light on the potential conditionalities behind 'the carrot'.

In addition, the assessments of the National Energy and Climate plans, published by the EC in mid-October, provide further guidance to the CEE on investments and measures to be included in National Recovery plans which look promising for EU funding. They can be summarised in three areas: renewable energy, energy efficiency and sustainable transport.

Figure 19 provides further guidance from the EC to CEE on their National Recovery Plans.

#### Fig 19 EC guidance to CEE on their climate and energy-related investment and reform measures

	Czech Republic	Hungary	Poland	Romania
Renewable energy				
Improve the flexibility of the grid				
Boost electricity production with solar PV				
<ul> <li>Upgrade existing infrastructure, storage capacity and smart grids</li> </ul>				
Enhance energy system integration				
<ul> <li>Promote the decarbonization of gas consumption</li> </ul>				
<ul> <li>Develop the market for storage technologies and clean hydrogen</li> </ul>				
Boost renewable energy generation				
Energy efficiency	· · ·	· · · ·		
Reduce administrative burdens to speed up building renovation				
<ul> <li>Invest in energy efficiency in residential housing and public buildings</li> </ul>				
Invest in energy efficiency in industry				
<ul> <li>Foster energy efficiency of district heating networks</li> </ul>				
Sustainable transport	·			
<ul> <li>Increase the roll-out of electric and hydrogen vehicles</li> </ul>				
<ul> <li>Develop charging infrastructure and alternative fuels</li> </ul>				
<ul> <li>Introduce tax reforms</li> </ul>				
<ul> <li>Invest into the backbone railway infrastructure</li> </ul>				
Improve suburban transport networks				
Support sustainable public transport and alternative transport modes				
Develop and modernize the public transport infrastructure				
<ul> <li>Promote intermodal transport networks and electromobility</li> </ul>				
<ul> <li>Improve transport infrastructure and sustainable mobility</li> </ul>				
<ul> <li>Reform the transport agencies</li> </ul>				
<ul> <li>Support the deployment of recharging and refuelling infrastructure</li> </ul>				
<ul> <li>Support the phase-in of green taxation and green budgeting</li> </ul>				

Source: ING estimates based on EC's assessments of the NECPs for CEE.

#### The stick: The cost of inaction & possible EU penalties

Through more ambitious climate targets for 2030 and the tightening of various policy instruments, the EC has created "a stick" to mobilise adequate policy action from its member states.

There are also some penalties related to non-compliance with legislated measures or operational targets. For example, countries not meeting their 2020 RES targets will need to buy a statistical transfer from those EU members which have over-performed. But practical implementation of various penalties at the EU level is complex and takes time.

"What is more important, the stick can be interpreted in terms of the opportunity cost of inaction." What is more important, the stick can be interpreted in terms of the opportunity cost of inaction. As demonstrated above, the region has a lot to gain in terms of air quality benefits. The region also has a unique chance to

modernise ageing energy infrastructure, restructure coal-dependent regions and give boost to new industries e.g. associated with solar energy or offshore wind.

Will the stick and carrot approach work? We plan to monitor the dialogue with the EC and review the CE4's national recovery plans in the coming months.



### Can Paris accord motivate Russia and Turkey to increase their climate ambitions?

"Temperature today is already around 1°C higher, the remaining GHG emissions budget under the Paris accord is very limited indeed" Alignment with the Paris agreement's longterm temperature goals (limiting its increase to 2°Celsius or a safer 1.5°C compared to preindustrial levels) needs to be reflected in nationally defined climate commitments of individual countries. Given that the global

temperature today is already 1°C higher, the remaining greenhouse gas emissions budget under the Paris accord is very limited indeed.

In this context, the official reduction pledges by Russia and Turkey are regarded as insufficient. Russia's 2030 reduction target of 25-30% relative to 1990 is easy to meet due to its economic restructuring and slow growth. Turkey's target of a 21% reduction defined in relation to a business-as-usual emissions path 2030 does not prevent further strong growth in absolute emissions.

"RES investments might therefore ignite innovation and exert downward pressure on domestic energy prices." Although both countries are generously endowed with fossil fuel resources, they may consider raising climate ambition levels in response to the improving economics of clean energy technologies. Technical progress and

economies of scale play a role here.

According to the International Renewable Energy Agency IRENA, the global average normalised costs of electricity production in onshore wind and solar PV are already below those of fossil fuels. RES investments might therefore ignite innovation and exert downward pressure on domestic energy prices. RES investments might therefore ignite innovation and exert downward pressure on domestic energy prices. addition, access to finance for investments in fossil fuels is increasingly difficult due to the sustainable finance agenda.

The expected alignment of Russian and Turkish climate targets with the Paris accord will need to be rather self-induced (rather than driven by availability of sizeable external funding as in the case of CE4), and rather moderate if compared to the EU's climate action.

Nonetheless, the scope for more sustainable sectoral measures could benefit from these countries strengthening their national carbon reduction pledges.



### A rare opportunity

Almost all CEE countries have made significant progress in decoupling greenhouse gas emissions from economic growth over the last three decades – largely through huge energy efficiency gains and some shift towards cleaner energy sources. In Turkey, emissions increased in absolute terms due to dynamic GDP growth and a growing population.

The Covid-19 pandemic has affected the region severely and forced a decisive anti-crisis policy response and significant fiscal loosening aimed at protecting jobs and supporting firms - in particular SMEs. CEE countries opted for quick and generous fiscal support, especially if the fiscal space was available. But so far, the region has refrained from green stimuli targeting improvements in environmental sustainability. Given that these countries are not in the forefront of green technologies, a quick green stimulus could perhaps translate into higher imports rather than give a boost to national economy. This policy approach is about to change, however, due to the European Green Deal for CE4 and further milestones required from Russia and Turkey by the Paris agreement.

The European Green Deal elevates the climate ambition targets for the CE4, but at the same time offers large financing envelopes in grants and preferential loans to accelerate green and digital transformations. Over the next few years, EU funds can both support economic recovery and divert economic growth towards a more sustainable development path, also by building domestic capacity in green products and technologies.

Progress on the sustainability front is also expected in Russia and Turkey, not only in reaction to the possible introduction of border carbon tax by the EU - a major trade partner for both countries, but also to align their climate commitments with the Paris agreement. The alarm bells of the global climate crisis will be heard in Moscow and Ankara. Russia and Turkey may consider announcing more ambitious carbon reduction pledges in the run-up to the COP26 international climate meeting in Glasgow in late 2021.

Also, in light of the significantly improved economics of green technologies and emerging business opportunities, green growth might be a new growth paradigm also in countries sitting on large fossil fuel resources. In the end, both countries also enjoy huge endowments of renewable natural resources and wind and sun conditions.

"the CEE region is being presented with a rare opportunity to shift policies towards more climate friendly paths." Taken together, the CEE region is being presented with a rare opportunity to shift policies towards more climate friendly paths.

#### Annex 1: Progress Scorecard on sustainable sectoral measures

	Czech Republic	Hungary	Poland
Energy and Energy Efficiency			
<ul> <li>Investments in network infrastructure such as power grids (especially across borders) and district heating</li> <li>R&amp;D or early-stage technologies with large knowledge spill overs (e.g. new RES, power storage technologies, and carbon capture and storage)</li> <li>Financing for renewable plants with large fixed costs, or operated by small firms or households</li> <li>Removing existing regulatory hurdles to help unlock green investment</li> <li>Regional development and active labour market policies for displaced workers.</li> </ul>	<ul> <li>After a boom in solar energy plants a decade ago, recent developments are lagging.</li> <li>Small grants available for roof- solar panels.</li> <li>Bigger grants available for wind power plants, but due to an ossified building low, realization of projects is difficult.</li> <li>Postponing decision on coal exit most likely 2038.</li> <li>Limited green finance (eg. bond initiative</li> </ul>	<ul> <li>NECP sets the climate neutrality goal 2050.</li> <li>Promotion of network electricity storage facilities with a larger capacity</li> <li>Support of developments of household-scale small power plants combined with smart metering and electricity storage</li> <li>Support of EE in housing construction and renovation</li> <li>Programs to promote of industrial EE investments</li> </ul>	<ul> <li>Ambitious draft of Energy Policy through 2040, published in September 2020, assuming 11% share of coal in electricity generation vs ~85% today</li> <li>My Electricity program - financial public rebate for small-scale PV installations on individual buildings</li> <li>RES electricity auctions and CfD contracts</li> <li>Hydrogen strategy only in preliminary policy debate</li> </ul>
<ul> <li>Fuel taxes</li> <li>Emission standards for vehicles</li> <li>Incentives for cleaner cars (fiscal instruments, fee bates, development of charging infrastructure).</li> <li>Modal shifts. Policies to promote cleaner transportation modes, such as walking, cycling, and mass transportation</li> </ul>	<ul> <li>No CO2-related carregistration tax</li> <li>Limited support for EV for individuals, only limited for municipalities and state entities</li> <li>Govt. support for charging stations is in place, but total number of stations lagging</li> </ul>	<ul> <li>Modernization of rainouds, highways and motorways</li> <li>Electromobility support via new car purchase programs</li> <li>Green Bus Programme to replace 50% of the internal combustion engine buses in the largest cities by low carbon ones within 10 years</li> </ul>	<ul> <li>Development of electric curs, deployment of electric busses</li> <li>Massive investment in public transport infrastructure and vehicles, largely supported by EU structural funds</li> </ul>
Housing			
<ul> <li>Speeding up the renovation rate by harmonizing and regulating energy efficiency ratings and increasing availability of building efficiency information</li> <li>Green mortgages</li> <li>Means-tested, low-interest loans or grants for renovation energy-dependent property taxes</li> </ul>	<ul> <li>The New Green Savings Program and the Modernization Fund are focused primarily on energy savings and renewable energy sources.</li> <li>Despite that, CZ lagging in energy efficiency, in 2014-2020 plan and likely not fulfilling 2030 threshold if not improved</li> <li>No database for Energy Performance Certificates like in other countries.</li> <li>Prices of energy certificates high and volatile</li> </ul>	<ul> <li>In line with EU regulation, only those buildings admitted for use whose energy-efficiency meets the requirement of the nearly zero energy-demand</li> <li>Home refurbishment program</li> <li>VAT rate cut to 5% for newly build houses</li> </ul>	<ul> <li>Clean Air program 2019-29 addressed to individual home owners for thermomodernization and switch off heating sources</li> </ul>
Manufacturing and Circular Economy			
<ul> <li>Carbon pricing as critical signal to spur investments in clean technologies and carbon border tax in the absence of global carbon pricing</li> <li>Complementary policies: increasing public R&amp;D and support private R&amp;D in green technologies, removing regulatory hurdles, improving market transparency and coordination, addressing investment constraints of the financial sector (public guarantees and insurance schemes)</li> </ul>	<ul> <li>Limited progress on circular economy agenda</li> <li>Circular economy gradually phased in by corporate sector</li> <li>Good progress in sorting and recycling waste, but municipal waste per capita on the rise</li> </ul>	<ul> <li>Circular Economy Platform established with support from the Ministry of Innovation and Technology</li> <li>Recycling rate of municipal waste still well below the EU average</li> <li>A small-scale program started to support building greener production capacities among SMEs (Green National Champions Program)</li> </ul>	<ul> <li>Limited progress on circular economy agenda though Circular Economy roadmap was adopted in September 2019 as formally required by the EC</li> <li>Delays in the implementation of nation-wide database on waste</li> </ul>
Agriculture			
<ul> <li>Measures aimed at shifting consumer choices away from beef and dairy</li> <li>Removing tax expenditures favouring emission- intense products and introducing standards and measures to raise awareness, such as CO2 footprint labels on food.</li> <li>Scope for improvement</li> </ul>	• The Operational Program Environment financed from the EU funds (CZK70bn in 2014- 2020) for environmentally- friendly projects.	<ul> <li>Low R&amp;D in the sector</li> <li>EC's Green Deal target for agriculture is seen a threat to the food security of the country.</li> </ul>	<ul> <li>Lack of decarbonisation strategy in agriculture</li> </ul>
Moderate progress			
Significant progress			

#### Annex 1: Progress Scorecard on sustainable sectoral measures (Cont'd)

	Romania	Russia	Turkey
Energy and Energy Efficiency			,
<ul> <li>Investments in network infrastructure such as power grids (especially across borders) and district heating</li> <li>R&amp;D or early-stage technologies with large knowledge spill overs (e.g. new RES, power storage technologies, and carbon capture and storage)</li> <li>Financing for renewable plants with large fixed costs, or operated by small firms or households</li> <li>Removing existing regulatory hurdles to help</li> </ul>	<ul> <li>An ambitious target of 30.7% share of RES in the total energy consumption for 2030</li> <li>By 2030, 7 GW of new RES capacity to be installed, out of which 6 GW in wind and PVs. Share of coal-based electricity to drop from 23% today to 8% in 2030.</li> <li>Nation-wide program for upgrading the public illumination</li> </ul>	<ul> <li>Pushing back the deadline for increasing RES target of 4.5% from 2020 to 2024</li> <li>National project 'Ecology' aimed at modernizing inefficient refineries, attracting investments to renewables &amp; subsidizing corporate 'green' bonds</li> <li>Russia's 'Energy Strategy' targets an expansion of gas and GTL</li> <li>Projects on introducing new</li> </ul>	<ul> <li>Regulatory and institutional framework to promote energy efficiency and credit lines</li> <li>The feed-in tariff for RES incentives investments</li> <li>Steps to replace 30% of the country's 7.5 million streetlights with energy- efficient models by 2023</li> <li>Plans to reconsider the role of coal in electricity generation to</li> </ul>
unlock green investment <ul> <li>Regional development and active labour</li> <li>market policies for displaced workers</li> </ul>	systems covering up to 90% of the investment with a total cap of EUR80m	renewable plants in the pipeline through 2030	comply with Paris accord
Transport			
<ul> <li>Fuel taxes</li> <li>Emission standards for vehicles</li> <li>Incentives for cleaner cars (fiscal instruments, fee bates, development of charging infrastructure).</li> <li>Modal shifts. Policies to promote cleaner transportation modes, such as walking, cycling, and mass transportation</li> </ul>	<ul> <li>A generous subsidy scheme for the auto park renewal through the purchase of electric vehicles and</li> <li>Financing of up to 80% of the expenses for buying charging stations for public and private institutions</li> <li>Multi-annual program for the deployment of more efficient public transport (electric, hybrid, LPG busses)</li> </ul>	<ul> <li>Tax- and non-tax benefits for producers and users of electric cars (free parking in Moscow, luxury tax and transport tax avoidance)</li> <li>Cycling-and-pedestrian space programmes in key cities (incl. Moscow).</li> <li>Expanding the use of electric scooters.</li> </ul>	<ul> <li>Efforts to manufacture electric vehicle by 2022</li> <li>The vehicle taxation system provides some environmental incentives</li> <li>High tax rate on gasoline and diesel</li> <li>Slow progress in the transition towards zero-emissions in the rail and road passenger transport</li> </ul>
Housing			
<ul> <li>Speeding up the renovation rate by harmonizing and regulating energy efficiency ratings and increasing availability of building efficiency information</li> <li>Green mortgages</li> <li>Means-tested, low-interest loans or grants for renovation energy-dependent property taxes</li> </ul>	<ul> <li>CASA VERDE and CASA VERDE PLUS programs for households upgrading their heating systems through the purchase of PVs and heat pumps. It covers up to EUR15k but no more than 60% of the investment</li> </ul>	<ul> <li>Slow renovation of the building stock</li> </ul>	<ul> <li>Target to increase building renovation rates to 5% by 2020 is probably out of reach</li> <li>Targets to introduce RES in new buildings or reduce GHG emissions not supported by concrete policies nor long- term strategy</li> </ul>
Manufacturing and Circular Economy			
<ul> <li>Carbon pricing as critical signal to spur investments in clean technologies and carbon border tax in the absence of global carbon pricing</li> <li>Complementary policies: increasing public R&amp;D and support private R&amp;D in green technologies, removing regulatory hurdles, improving market transparency and coordination, addressing investment constraints of the financial sector (public guarantees and insurance schemes)</li> </ul>	<ul> <li>Hydrogen to represent an important vehicle of decarbonisation in industry</li> </ul>	<ul> <li>Circular Economy as increasingly popular trend in the corporate sector</li> <li>Russia's 'Energy Strategy' addressed to reduce specific energy use, introduce environmentally friendly R&amp;D technologies and improve environmental requirements for subsoil use</li> </ul>	<ul> <li>Requirement of ISO 50001 standard for industrial establishments using more than 1 000 toe</li> <li>Expanding wastewater and waste treatment infrastructure</li> <li>Limited progress on circular economy implementation</li> </ul>
Agriculture			
<ul> <li>Measures aimed at shifting consumer choices away from beef and dairy</li> <li>Removing tax expenditures favouring emission-intense products and introducing standards and measures to raise awareness, such as CO2 footprint labels on food.</li> </ul>	<ul> <li>Incentives for small farms to associate and generate economies of scale</li> <li>Utilising the full potential for biomass production</li> </ul>	<ul> <li>Production of genetically modified food is prohibited since 2016</li> <li>The law on 'On Organic Products' promotes the healthy production and restoration of soil fertility</li> <li>No tax benefits for organic producers introduced yet.</li> </ul>	<ul> <li>Agricultural insurance system to increase resilience to climate disasters</li> <li>Favourable GHG emission trends in forestry and agriculture due to policies aimed at deforestation slowdown.</li> </ul>
Scope for improvement			
Moderate progress			

#### Significant progress

Source: ING selection based on the authorities data and public sources.

# Countries



# Czech Republic

The Czech Republic is grouped with countries with the highest CO2 emission per capita in the EU (12.2 tonnes vs. 8.5 EU average in 2018) given its high share of production in GDP and high dependency on coal accompanied by low energy efficiency.

After Germany and Poland, the Czech Republic is the third largest coal producer in the EU (46 mil tonnes/year). Also its energy intensity remains one of the highest in the EU, while the share of renewable energy (15%) is below EU average (18%) and – after a solar boom in late 2000s – things haven't improved in recent years.

Still, the Czech Republic is within the EU climate policy framework, with a current plan to lower greenhouse gas emissions by 20% in 2020 and 40% by 2030, in comparison to 1990. The country is ahead of this plan due to transformation and termination of heavy industries in 1990s, however, emissions have stagnated over the last few years, and while the less ambitious 2020 targets will be easy to achieve, the amended 2030 targets will require a lot of effort.

#### Current approach to emission reductions

The Czech government isn't enthusiastic about the recent European Commission proposal to increase the target for 2030 to 55% due to high coal dependency and

"50% of electricity production in the Czech Republic is based on coal and 60% of the heating sector." energy security issues related to faster decarbonisation. That's because 50% of electricity production in the Czech Republic is based on coal and 60% of the heating sector.

According to the government, the enlargement

of nuclear powerplant should help reduce coal-dependency in the medium-term. But it is unlikely that this project might be finalised before 2036, so this source (not necessarily considered as green or consistent with the EU Taxonomy, but at least emission-free) looks unlikely to reduce coal emissions before 2030. Renewable power sources currently represent around 15% in final energy demand with a plan to reach 22% through 2030. This is a relatively high share in the CEE region, but below the European Commission's recommendation of 23%.

After a solar power-plant boom in 2009-2010 amid faulty legislation which provided very generous public support scheme and was heavily criticised, general public become more sceptical about subsidising RES, and later on, also government actions supporting investments in RES have muted. As such, enlarging solar energy sources has significantly lagged over the last five years, compared even to the more conservative and coal focused Poland, even though the Czech longer-term energy strategy is a combination of nuclear and renewable sources.

Elsewhere, the Czech Republic is behind in energy efficiency polices compared to the EU average, especially in promoting the thermal insulation of buildings.

#### **Covid-19 crisis response**

As a result of the pandemic, the government introduced measures, which focused on job retention or wage subsidies and credit (cash-flow) support, but not direct green initiatives. The total volume of direct measures amounted to around 2% of GDP through end of September. The measures include some compensation for self-employed people or companies, the suspension of social and health insurance obligations for six months for the self-employed, a short-term working scheme to support employment and more resources going to the health sector. Also guaranteed liquidity support in forms of credit was launched, though it was not used as much as initially planned by the government (around CZK50bn vs CZK500-600bn capacity).

#### Fig 20 Anti-crisis policy measures as of as September 2020

	CZK bn	% of GDP est
Direct support (higher expenditure or lower income)	90	1.7
Health care expenditures	29	0.5
Liquidity support by postponing tax-payments	32	0.6
Liquidity support by guaranteed loans	47.2	0.9

Source: MinFin, ING

#### What can be done?

The National Recovery plan (NRP) is under preparation with plans to spend around CZK182bn from the EU recovery fund (3.4% of GDP). According to the preliminary proposal, almost CZK16bn is devoted to infrastructure to construct railways, especially high-speed ones. CZK25n to the digitisation of the state and companies in various projects. There is also the intention to invest CZK15bn to build new medical facilities. Education and labour market have been given CZK20bn, research and innovation CZK12.5bn and business competitiveness measures more than CZK30bn. There are also some controversial proposals such as CZK20 bn to support investments by accelerated depreciation. However, it is not clear whether such a proposal has a chance of being approved by the European Commission.

The most important part of financial resources (CZK118 bn) should be devoted to infrastructure and green investments and the proposal generally fulfils conditions of the EC to use the majority of funds for green and digital transformation, according the government.

However, expert community (e.g. Change to the Better /in Czech: Změna k lepšímu) is critical of the plan as being prepared at short notice, not taking on the board expert comments and as such missing the main sustainability objectives in its current form. The draft recovery plan seems to be prepared largely as some compilation of earlier projects with limited new green investments. Still, the EC has already made it clear that investments should take into account the European Commission's previous economic recommendations - and they should be unique reform projects that, for example, cannot be financed from existing EU funds, so final NRP might be adjusted further based on the comments from EC & expert community.

#### Can the European Commission's recommendation be achieved?

In its latest country report, the European Commission mentioned only limited progress in economic policies and investments focusing on the transition to a low-carbon economy and energy transformation, including increasing energy efficiency. Some of the things highlighted include:

- Revenues from environmental taxes are very low and still declining.
- Coal remains dominant in the power sector and remains an important driver of economic activity in three Czech regions.
- The energy sector lacks financial incentives and an appropriate legal and institutional framework to support more renewable energy sources.
- The shift to electromobility has been rather slow and road transport is becoming one of the main consumers of energy. Transport taxes are low and not based on the CO2 emissions. The electric vehicle charging infrastructure is still underdeveloped.

In all, the Czech Republic has extensive work to do on green energy and transformation away from a coal-based economy. From this perspective, the new EU funds will provide a unique opportunity to accelerate the decarbonisation process.

## Hungary

While Hungary has come a long way from where it started in 1990, the worsening of the global climate situation necessitates new and even more ambitious climate policy measures and it seems Hungary is up for the challenge.

In January 2020, the government passed the National Energy strategy and the National Energy and Climate plan, both of which will be vital in meeting Hungary's goal of becoming climate neutral by 2050.

Prime minister Viktor Orbán labelled Hungary as a "climate champion", based on the progress over the last three decades as the country made it into the list of just 21 countries globally that managed to reduce greenhouse gas emissions with economic growth. All CEE countries we cover were in this group except Turkey.

According to its climate strategy, Hungary aims to cut greenhouse gas emissions in

"Prime minister Viktor Orbán labelled Hungary as a "climate champion", based on the progress over the last three decades" 2030 by at least 40 percent from their level in 1990. According to the latest data referring to 2019, the country has already reached nearly a 32% reduction. Hungary also aims to increase the share of

renewables to 21% of its gross energy consumption. The 2020 target of 13% is within reach (12.5% in 2018)

With regard to the gas and electricity market, Hungary has two goals: decreasing consumption and reducing import dependency. By 2030, Hungary aims to reduce natural gas consumption from 10bcm to 8.7bcm, with the import rate dropping from the current 80%+ to below 70%. Regarding electricity, the government plans to increase the share of zero carbon electricity production from 60% to 90% by 2040. Also, imports should fall below 20% (currently 32%). The National Clean and Development strategy is to be prepared by end 2020.

#### Current examples of green initiatives (active and passive actions)

Lately Hungary has been rolling out a lot of smaller green programs and projects including transportation, energy production and building modernisation. For example, the government's Green bus programme will facilitate replacing 50% of buses in Hungary's largest cities by low-carbon emission replacements within the next ten years. Green bus is also aimed at boosting domestic bus making.

Also, the government launched a new electric vehicle subsidy scheme in 2016 and updated the program in 2020. The support is restricted in value, however, it will cover purchases of about 2,000 electric vehicles.

For commuters, a good opportunity emerged in 2020 to swap the car for a bike. The government set up a new program to support the purchase of more than 7,000 e-bikes.

Energy production is also in focus. The state bought the Mátra Power plant - the country's second biggest (providing 16% of Hungary's electricity production) in 2018 to transform and modernise it. Also, there is a plan to install of some 6,000 MW of photovoltaic capacity, almost six times the current installed solar capacity in the country. Albeit somewhat controversial, the preparations of the new Paks two nuclear facility is under way.

On energy efficiency, the government offers subsidies to support energy savings in buildings. From the beginning of 2021, only new buildings with nearly zero energy-demand will be able to get a permit for use.

#### **Covid-19 crisis response**

In response to the pandemic, the government introduced one of the biggest support programs on face value in the region, but it was not associated with any green conditionalities. At first glance, the HUF 9,000bn program (Economy Protection Action plan), which amounts to 20% of GDP, seems gigantic. However, there were hardly any fiscal stimulus measures that would have burdened the state as it contained mainly credit relief, guarantee elements, preferential loan products, and EU-funded programs. Recently, additional stimulus worth about HUF 5,000bn was announced, but hasn't yet been specified.

Most anti-crisis measures went on Covid-19 defence and on labour market projects. Also, several tax-related measures (mainly temporary ones) were introduced.

Similar to other CEE countries, the crisis response package had no green strings attached. The only program was the Green National Champions program to support building greener production capacities among SMEs. However, the framework is rather symbolic compared to the full Economic Protection Action plan – as it sums up to about HUF 4bn and is funded from EU money.

#### Green bond issuance

Hungary has made advances on sustainable finance. In early 2020, PM Orbán announced the launch of the green bonds that will be used to finance climate-friendly programmes. In June, the first issuance of 15-year bonds of EUR 1.5bn was successfully placed. Its proceeds are set to finance investment projects in transport, sustainable use and protection of lakes and rivers, waste reduction and the protection of healthy ecosystems. In September, Hungary returned to the Samurai market to sell the first ever sovereign green bond in Japanese yen worth around EUR500m.

#### What can be done?

Recently, the government cut back value-added tax on newly built houses to 5% from 27% to support making residential buildings greener, as this adds some impulse for improvements in energy efficiency, which is currently quite low. This VAT cut was among the <u>50 proposals</u> the central bank suggested to support the recovery.

In Hungary, the central bank is quite unique in the region in contributing to climate action and promoting green finance. Many of the measure of the 50-point package may be specifically relevant to climate protection and the green economy. Along with the VAT cut, the central bank urged a new residential loan program to stimulate energy-efficient homes. In transport, the central bank suggested the development of road and railway connections with the borders, which can support greener exports.

In the five-step sub-package on climate change, the central bank highlights the need to accelerate the shift to renewable energy production and the development of the electric network. It proposes improvements in the bio- and food waste utilisation infrastructure along with the agricultural infrastructure and the renewal of public waterworks. It also suggests a comprehensive building energy efficiency programme.

All of these proposals are in line with the recent <u>EC's recommendations</u> to focus on clean and efficient production and use of energy, sustainable transport, and water and waste management.



# Poland

On climate policy, Poland is perceived as the EU laggard, frequently opposing initiatives to increase EU's climate action commitments in the recent years. For example, Poland was the only EU member to not accept the EU's climate neutrality target 2050 of the European Council in January 2020. It argued that the country needs more time and funding to reach this goal given that its electricity system is historically dominated by coal. Similarly, Poland is not comfortable with the increased 2030 headline reduction target from 40% to 55% as proposed by the EC. As we highlighted earlier, Poland already faces challenges in meeting the far less stringent 2020 targets.

#### Examples of green initiatives (active and passive actions)

Poland has neither promoted nor blocked environmental spending or support schemes amid the pandemic. Public support and risk taking is, for example, involved in the RES electricity auctions, My Electricity program for prosumer PV installations, or long-term Clean Air program to support energy efficiency improvements and replacement of furnaces in individual homes. Also, the national electro mobility program has not been abandoned, but it has a long and bumpy way to succeed. Because the Polish government decided for a relatively large-scale fiscal response to the pandemic, also environmental expenditures more traditionally present in the state budget (e.g. water or waste management projects) did not fall victim to budget savings.

#### Covid-19 crisis response

The universal support to workers and firms during the pandemic had no green strings attached. They were aimed at protecting people's incomes and firms' liquidity during the Covid-19 emergency. Public support was for companies and workers from all sectors, but in particular for SMEs. At least a 25% drop in monthly revenues compared to previous months or the corresponding period a year before was the qualifying condition for payments from the PFR Financial shield.

Poland's anti-crisis shield limited the rise in unemployment rate to 1pp, maintained the propensity to consume and extra liquidity prevented bankruptcies of businesses. According to our estimates, anti-crisis measures softened the GDP loss by about 2-3pp. Thanks to the Shield around PLN132bn (app. 6% of GDP) is to be transferred to the economy in 2020 in the form of wage co-financing, microloans, social security breaks and payments from the PFR Financial Shield. On the latter, keeping business and workers afloat for 6-12 months would enable redeeming up to 75% of the support value.





Source: ING based on the Ministry of Development data

The pandemic has aggravated the already difficult situation in the mining and coalbased energy industry. The recession translated into lower energy commodity prices and lower electricity demand, in particular from the coal-fired power plants. Due to high carbon prices, electricity from these sources became less competitive and does not qualify for the merit order in the supply curve, ranging from the cheapest to the most expensive units. Also, imports of electricity from neighbouring countries with more RESbased electricity systems creates a competitive pressure for Polish producers.

#### Rising carbon revenues in the national budget

Amid rising prices of CO2 permits, Poland's carbon revenues are on the rise. While in 2019 they reached PLN5.1bn (equivalent of 0.2% of GDP and 1.3% of total state budget revenues), they are set to reach PLN14.3bn this year (0.6% of GDP and 3.6% of total state budget revenues) as an additional amount stemming from unused derogations to electricity was tendered in 2020. Otherwise, they would increase to 0.4% of GDP, which becomes a substantial budget item anyway. According to EU directives, at least 50% of revenues generated from auctioning ETS allowances should be used for climate and energy related purposes.

#### What can be done?

In mid-September, the Minister of Climate published key assumptions of the draft 3.0. of the Polish energy policy through 2040. In contrast to the previous two versions, this

"Today almost 80% of electricity in Poland is generated out of hard coal and lignite." document acknowledges ongoing technological shifts in the energy sector and high carbon prices making coal-based electricity uncompetitive. The draft assumes only 11% share of coal in electricity mix in 2040

compared to about a 30% share of coal in the two earlier drafts of the energy policy. Today almost 80% of electricity in Poland is generated out of hard coal and lignite.

Poland's green transition is inevitably linked to access to new EU funds, from different 'pots', as discussed in Part 1. A large share of the potential EU funds will support green transition in Poland in line with the 30% share of climate-related expenditures in the new EU budget 2021-27. The new recovery fund with disbursements frontloaded in 2021-22, should not only help Poland accelerate the green agenda, but also support the recovery as public support programs funded from domestic sources expire.

On energy sector investments, the recent draft of Polish energy policy through 2040 assumes app.  $\leq$ 30bn (2018 constant prices) EU funding for energy sector investments. It includes  $\leq$ 18bn from cohesion policy,  $\leq$ 1bn from ReactEU,  $\leq$ 3.5bn from the Just Transition fund, and  $\in$ 7bn from the RRF. This funding should support the sectoral policy initiatives (Fig 22) and help introduce new measures.

#### Fig 22 Poland's Progress scorecard on sustainable sectoral measures

Energy and Energy Efficiency	Ambitious draft of Energy Policy through 2040, published in September 2020. My Electricity program supporting small scale RES and electricity RES auctions for large-scale RES projects
Transport	Development of electric car, deployment of electric buses, enhancements in public transportation
Housing	Clean Air program 2019-29: thermal modernisation and replacement of polluting heating sources in residential houses.
Manufacturing and circular economy	Limited progress in Circular Economy though CE roadmap was adopted in September 2019
Agriculture	No low-carbon strategy in agriculture

Source: ING assessment.

In order to get the carrot in the form of new EU funds, Poland will need to prioritise green investments and policy measures, and we are anxious to see the details of the forthcoming National recovery plan.



# Romania

At least among the CE4 group, Romania could probably be labelled as the poster child in terms of adherence to the EU's climate action commitments. This attitude has been encouraged by the favourable pre-existing conditions, especially the good hydro potential network but also by incentives for investments in wind and PVs in recent years. This meant that EU's 2020 targets have been relatively easily achieved by Romania, which exceeded the 24% RES target already in mid-2010s. But looking ahead to 2030 and the net zero emissions target in 2050, the story becomes a lot more complicated.

#### Current examples of green initiatives

Current examples of government support for clean energy and energy efficiency come in the form of various subsidies, ranging from PV installation (up to 90% of the cost but no more than 20,000 lei) to thermal insulation of houses, heat pumps, efficient lighting devices etc. Subsidies value vary but they generally cover up to 60% of the project value.

In sustainable transport, Romania has one of the most generous subvention schemes for switching to plug-in hybrids or 100% electric cars, with voucher values ranging from  $\leq$ 4,500 to  $\leq$ 10,000 under certain conditions.

#### Fig 23 Installed capacity in electricity in October 2020, by source



Source: ANRE – as of 12 October 2020

#### **Covid-19 crisis response**

Like most of its regional peers, Romania has adopted measures focused mainly at preserving jobs and ensuring liquidity via public spending or targeted lending schemes. According to the Ministry of finance, as of end-August 2020 almost 3% of GDP has been Covid-19 related expenses. On top of this, together with the banking system the government introduced special legislation allowing for credit holidays for both individuals and firms, and targeted lending programs especially for SMEs.

#### What can be done

The planned 30.7% share of RES in the total energy consumption in 2030 translates into additional power capacity of up to 7,000 MW. Out of this, almost 6,000 MW will be in wind and solar, as per the National Energy and Climate plan for 2021 – 2030. In this context, the Romanian government intends to implement a contract for difference ("CfD") support mechanism in the next two years. The scheme is to be applicable to two types of projects: renewable energy projects (wind, solar, micro-hydros, biomass) and strategic projects (nuclear and fossil fuels involving carbon capturing). The scheme is pending EC's approval.



Fig 24 Trajectory on installed power sources through 2030

Source: Integrated National Plan for Energy and Climate Change 2021-2030

#### National plans and EU funding

The projected phasing out of coal facilities should assure the share of coal in the electricity mix dips below 8.0% in 2030. The main challenge is restructuring of Complexul Energetic Oltenia (CEO)-the main coal-based energy producer, covering around 20% share in Romania's energy mix. A plan of €1.5bn will be submitted to the European Commission through the Just Transition fund.

In July 2020, the government presented a National Investment and Recovery plan (available <u>here</u> in Romanian only) for the 2020-2030 period with total investments estimated at around EUR100bn from both national and EU sources.

We anticipate that this plan will form the base for the National Recovery plan due to be submitted to the EC. Although not specifically split in green/non-green but rather in economic sectors, the investment priorities are calibrated "to account for the fact that the European Green deal will become EU's main growth strategy over the long-term".

In the energy sector, a strategic direction is to increase the share of RES in the total energy mix -particularly through investments in wind farms and PVs. Similar to the above-described investment plans for CEO, the main national companies are set to present their 'green' investment plans. For example, Hidroelectrica stands out with investment objectives totalling over EUR5.3bn, including off-shore and on-shore wind farms or PV parks.

#### Hinting at possible support areas of the NRP, the latest <u>CSRs for Romania</u> included:

- 1) Strengthen the resilience of the health system and sustain the economy while avoiding permanent fiscal measures that would endanger fiscal sustainability.
- 2) Mitigate the employment impact of Covid-19 by developing flexible working arrangements and provide social protection.
- 3) Ensure liquidity support to the economy for the benefit of businesses and households, particularly SMEs and the self-employed. Front-load mature public investment projects and promote private investment to foster the economic recovery. Focus investment on the green and digital transition.

Improve the quality and effectiveness of public administration and the predictability of decision-making through adequate involvement of social partners.



### Russia

#### **Overview: key messages**

Russia stands out in our overview as both a commodity exporting country and not a part of the EU.

"With CO2 emissions planned to be reduced only modestly, alongside extraction of coal, Russia will remain the fourth largest CO2 emitter on the planet." Russian goals in sustainable development are less ambitious than that of regional peers, especially in the environmental protection area. With CO2 emissions planned to be reduced only modestly, alongside extraction of coal, Russia will remain the fourth largest CO2

emitter on the planet. At the same time, Russia, being an important trade partner for the EU , is far from being absolutely 'insulated' from the green agenda, especially given that EU's Green deal, suggests carbon border tax for non-compliant trade partners.

The country cooperates with the EU both on global (UNFCCC and other international initiatives) and on bilateral levels, i.e. the programmes of Cross-Border Cooperation initiative, the Interreg Baltic Sea Programme and the Northern Dimension Environmental partnership. These initiatives are focused, inter alia, on bilateral cooperation for resource management and cleaning environment, environmental education, integrated territorial development and tackling environmental problems.

Besides, on the state level according to Russia's <u>Energy strategy</u>, it intends to i) expand the production of natural gas and gas-to-liquid fuel by 19-38% by 2035, with higher exports to European countries, ii) improve energy efficiency by reducing specific energy consumption, iii) introduce environmentally friendly technologies among the largest Russian businesses and iv) improve environmental requirements for subsoil use.

#### Where do we stand?

At present, the process of moving Russia towards a green economy is quite slow.

In Yale's university <u>environmental performance index</u> (EPI) Russia scores 50.5. This is below EU countries, including Poland and Bulgaria, scoring correspondingly at 60.9 and 57. Key challenges for Russia include high CO2 emissions, air pollution, challenges to waste treatment, low share of renewables in the energy mix, little research on environmental protection, low share of consumer goods (including cars) using RES. On the bright side, there is awareness of the issues in the society, corporate sector and the government, leading to slow progress towards better compliance with the UN's sustainable development goals.

"Clean energy is a key issue for Russia, given its reliance on hydrocarbons." Clean energy is a key issue for Russia, given its reliance on hydrocarbons. According to the BP energy <u>outlook</u>, in Russia's primary energy mix, oil and gas account for 75.7%, coal – 12.2%,

nuclear energy – 6.3%, hydro-electric– 5.8% and renewables (solar, wind, geo-thermal) account for only 0.1%. And such a composition has stayed relatively similar throughout the last ten years. Russia has a target of increasing the role of renewables to 4.5%. However, the track record has so far been poor, with deadlines pushed back from 2020 to 2024, and further delays likely.

In terms of environmental pollution, Russia is responsible for appr. 5% of greenhouse gas emissions, which seems large compared to its modest 1.9% contribution to global GDP.

In Autumn 2019, Russia ratified the Paris agreement, four years after the accord was signed. Russia's intended nationally defined contribution ensure <u>lowering GHG to 25-</u>

30% below 1990 levels by 2030. This target is very easy; and compared to 1990 Russia has already outperformed this target. The possible NDC target, introduced in the 2050 long-term low GHG development strategy in March 2020 (currently under public discussion), suggest 33% cut in emissions by 2030. This is better than the intended one, but still not as challenging as the 55% cut recently proposed by the EC for the EU. If the 2050 low-emissions development strategy is accepted. Russia may submit the 33% target as its NDC next year, prior to the COP26 meeting.

The situation where international partners welcome Russia's climate-related reforms creates additional challenges for external trade. For example, given that EU accounts for 55% of Russia's exports of oil and gas, 44% of metals and finished products, and for 14% of machinery and equipment, the potential introduction of EU carbon border tax may push up local European prices on Russian goods. The carbon border tax may be avoided if supply countries introduce the same environmental standards. This is difficult for Russia as a commodities-based country, and thus may lower the competitiveness of Russian export prices for European customers.

On the corporate level, higher environmental standards and rising global demand for 'green' products require more action towards sustainability. Truing to adapt to the new market, the largest Russian companies introduce environmentally-friendly products and renew their 'green' policies. For example, 'Rusal' introduced a low carbon aluminium 'Allow', produced using 90%+ renewable energy, 'Severstal' offered environmentallyfriendly zinc-coated rolled steel, while 'Rosneft' officially announced its intention to contribute to global sustainability, spending c. RUB 80bn on 'green' projects since the last two years.

Overall, more than 700 Russian companies have joined the European initiative 'Carbon Disclosure project' and regularly provide data on their responses to climate change and other sustainable development goals. Those initiatives improve individual companies' green profile; however, it remains unclear if these will enable the country to circumvent penalties for non-compliance.

#### Effect of Covid-19 on the green agenda in Russia

In Russia's case, environmental protection was not a priority in the government's response to the Covid-19 crisis. None of the direct fiscal support of this year's 4% GDP package is directly targeted at supporting the environment. 63% of the package was allocated at improving the welfare of people through social benefits for the unemployed and families with children, healthcare and infrastructure development. The remaining part of the stimulus represents support for businesses.



Following the national lockdown that lasted from the end of March until May 2020, better compliance with the green agenda comes naturally, through lower economic activity and CO2 emissions declined as a result (in 8M20 passenger air traffic decreased by 47.3% YoY, incl. 84% YoY in Apr-Jun'20) and industrial production, which fell by 4.5%

#### Fig 25 2020 anti-crisis package by sectors

YoY in 8M20. The latter is also affected by OPEC+ constraints, leading to lower emissions from the oil-gas industry.

#### What can be done?

To comply with the global trends in sustainable development, Russia is implementing <u>the National projects</u> (NPs) and other initiatives (i.e. national strategies on environment security and energy efficiency), however the deadlines for achieving the internally set goals in the government programmes have been postponed by six years – from 2024 to 2030 reflecting a Covid-19 related shift in the fiscal policy priorities. In terms of 'going green' local businesses (internal projects e.g., 'Everland', 'Green is the new black' etc.), media (e.g. <u>'+1 Project'</u>) and population (e.g., 'Plant the forest', 'Buy Social' etc.) seem to outstrip the authorities for now.

	Russia	Spending, \$bn*
Power / Energy efficiency	/ Energy efficiency The Energy Strategy of Russia till 2035 Energy Security Doctrine Long-term low GHG Development Strategy	
Transport	NP 'Comprehensive plan for the modernization and expans main infrastructure' / NP 'Safe and Quality Roads' NP 'International Cooperation and Export'	sion of 98.7 0.3
Heating	NP 'Housing and Urban Development'	6.9
Low-carbon fuels and circular economy	Long-term low GHG Development Strategy The Energy Strategy of Russia till 2035 NP 'Ecology'	No data available No data available 17.4
Industrial digitalization	NP 'Digital Economy' R&D strategy	16.6 No data available

#### Fig 27 Key environmentally friendly initiatives on the state level

Note. \*Spending on the environmentally friendly initiative(s), not the entire project. In total, \$139.9bn for 2018-2024. Subject to changes in end-Oct., accounting for a shift in the deadline from 2024 to 2030. Source: Accounts Chamber, State government portal, https://futurerussia.gov.ru/, ING

The headline green initiative carried out by the government for the medium-term is the 'Ecology' National project (c.\$52bn).

In 2019-2030, the project aims to clean up the landfills, improve disposal and processing of waste, reduce damage from forest fires by 2.6 times in 2018-2024, create national parks and specially protected natural areas, improve water quality, and cut emissions by 20% in 2019-2023 (the latter may provide some ground for a further revision of Russian NDC). Within the Project the government also subsidises corporate 'green' bonds issued as a part of the new environmentally friendly projects. Additional measures include: i) supporting electric car penetration, which is very low in Russia (0.02% given their high price), through tax- and non-tax benefits for producers and consumers, ii) accepting the new plan on renewable energy development in the nearest future and/or extend the current one, iii) modernizing inefficient refinery plants, iv) attracting investments to renewable energy.

With authorities' support and the pressure from European trade partners, Russian businesses and society will continue to increase its attention to sustainable development, and thus will move further towards green production and consumption. We expect the biggest exporters to increase the production of environmentally friendly products both for European and local consumers and improve their green image, which is especially significant for the commodity-oriented businesses.

To summarise, it appears that Covid-19 will rather delay than accelerate green actions of the Russian government. This contrasts with the accelerated green initiatives of the CE4 countries this decade, driven by ambitious EU regulations and generous EU funds.

Some progress is expected, so the alarm bells of a climate crisis will be heard, but this is unlikely to translate into green policy response. Like all energy exporters, Russia is facing a huge challenge to re-define its growth model in a low-carbon future.

# Turkey

Turkey's primary energy mix is highly dependent on fossil fuels - almost close to 85%. The remaining share comprises wind and solar (10%), hydro (5%), and biofuels & waste (2%).

Turkey has tripled its installed renewable energy capacity over the past 16 years – albeit from very low levels - and became the sixth country in Europe in installed wind and solar power. However, starting from 2005, the share of RES in total energy supply has increased only modestly. In its 11th Development plan, Turkey aims at reaching a RES share of 38.8% in 2023.



The energy sector made a significant contribution to greenhouse emissions - 72% in 2018, thanks to the transport and power generation sectors. Therefore, to reduce greenhouse emissions, the power sector will be critical and the reduction in transport emissions will require advances in electro mobility.

#### Covid-19 crisis response

The economic policy response to Covid-19 included various fiscal, monetary and financial measures. According to the Minister of Treasury and finance, its size reached 11% of GDP. In its anti-crisis response, the government focused on keeping the economy afloat, expanding healthcare and protecting households' incomes and business revenues. However, the support program was not related to green policies.

The key items in the fiscal package were:

- Expansion of health system to support treatment by recruiting new health workers and opening new hospitals, raising the testing capacity.
- Supporting enterprises mainly through the deferral of social security premium
  payments and tax payments, providing short-term work allowance salary payments
  of private sector workers and a doubling of the loan guarantee limit of credit
  guarantee fund (from US\$3.85bn to US\$7.7bn).
- Supporting households with prohibition on layoff of formal workers for three months (extended until November), cash in hand via direct transfer payments and other forms of financial burden relief measures i.e. wage subsidies for workers on unpaid leave, increased pension pay-outs, lump sum payments to poor households, delayed credit payments etc.

#### Fig 30 Turkey: Stimulus measures for combatting Covid-19

Total stimulus 11.0% of GDP: On Budget 4.4% Monetary 6.6%, Green 0%

	TRYbn	As % of GDP
Total	494	11
Fiscal Measures	197.2	4.4
Support for households	<b>16.2</b>	0.4
Social support program	6.2	0.1
Donation campaign	2	0
Cash aid to employees	4.4	0.1
Unemployment benefits	3.6	0.1
Support for businesses	<b>181</b>	4
Tax deferrals	122.3	2.7
Deferrals for social security premiums	40	0.9
Short-time work allowance	18.7	0.4
Monetary Measures	<b>296.8</b>	<b>6.6</b>
Loans granted	267.4	6
Loan service deferrals	29.4	0.6

Source: Ministry of Treasury and Finance

#### What can be done?

While the government focused on passing crucial legislation on environmental concerns last year, its task ahead, according to the government officials, will be to move forward with an action plan for smart cities, the introduction of electric cars, application of significantly raised environmental fines etc.

In this regard, while keeping its focus on immediate needs to help the economy, the government could further leverage the pandemic challenge and assign some stimulus to: i) facilitate a faster transition to renewables while reducing the share of fossil fuels, particularly coal ii) provide more incentives for energy efficiency investments iii) revise the vehicle and fuel taxation model.

Increasing efforts to strengthen the policy framework and further align the regulatory standards with EU policies would at least be a concrete step in the right direction.

#### Disclaimer

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. (**"ING"**) solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. ING forms part of ING Group (being for this purpose ING Group N.V. and its subsidiary and affiliated companies). The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is subject to limited regulation by the Financial Conduct Authority (FCA). ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.

Additional information is available on request. For more information about ING Group, please visit https://www.ing.com.