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WARSAW, BRUSSELS, AND EUROPE'S GREEN DEAL: CHALLENGES AND OPPORTUNITIES IN 2020

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Key Takeaways

Prospects for the proposed European Green Deal—a top European Union (EU) priority despite the headwinds from the global pandemic—require accommodating both the "climate ambitious" policy makers in Brussels, Berlin, and several other EU capitals and the "climate cautious" leaders in Warsaw and other Eastern European capitals. With the European Council's announcement of an agreed package on July 21, 2020, a tricky step remains: ratification by the European Parliament and national legislatures. If lawmakers support the Council's package, this impressive feat of deal-making will yield important outcomes:

- The EU will have a clear road map in place leading to midcentury decarbonization.
- This success will reflect pragmatic compromises that will enable the EU to extend its longstanding claim to global climate leadership, even in the face of broad political tensions with Warsaw and immense challenges created by Covid-19.
- Poland—long a reluctant partner in the EU's climate agenda—will have secured important financial and political support to intensify its energy transition, even though significant investment must be raised and hard work performed to create new economic engines not based on coal extraction and generation.
- Leaders around the world will have concrete proof that it is possible to bridge the gap between countries or communities that want to accelerate climate protection efforts and those who feel threatened by them; indeed, the global community cannot succeed in responding to climate change unless all parties accelerate their efforts, as Europe will now aim to do.

Introduction

As 2020 approached, few doubted that it would be a watershed moment for climate policy in the European Union (EU): Ursula von der Leyen, president of the European Commission since December 1, 2019, proposed during her second week in office a European Green Deal (EGD) that is meant to be the defining initiative of her Commission tenure. The EGD proposal called for bold and comprehensive action to make climate protection central in all EU policy. In the process, however, the EGD brought to the fore chronic tensions between EU leaders who are

"climate ambitious," often in Northern, Western, and Southern Europe, and those who are climate cautious, mostly in Central and Eastern Europe.

In an unprecedented move, one lone member of the European Council did not join consensus with his peers to commit to climate neutrality in all member states by 2050—Poland's prime minister Mateusz Morawiecki. The diverging orientations of Brussels and Warsaw on climate policy were laid bare. Worse yet, broader political tensions between Poland and the EU on political and other matters meant that dialogue was already severely strained. Many felt that the Brussels-Warsaw tensions would translate into a complete impasse on climate policy.

Then 2020 grew even more complex. The novel coronavirus caused massive economic effects across Europe, and some climate-cautious EU members called for a shelving of climate objectives.[1] Polish leaders continued to draw attention to the political and economic difficulty of the country's move away from hard coal and lignite,[2] the traditional bulwarks of the Polish economy, energy security, and society. Were Poland to support the EGD, said Warsaw, it would need special accommodation of its situation.

Strong leadership may make such an accommodation possible. The Green Deal has regained momentum and seems poised to be implemented. Germany assumed the six-month EU presidency on July 1, 2020. With Angela Merkel preparing to step down in 2021, the chancellor appears intent on cementing her legacy by delivering a comprehensive climate package that shores up the cohesion of the EU. Together with French president Emmanuel Macron, Merkel has advocated for unprecedented EU common borrowing and significant grant funds, which are the key enablers of a "green recovery" package. On July 21, 2020, the European Council agreed on a package providing a post-pandemic recovery plan, measures to implement the European Green Deal, and the EU's next seven-year budget, for the years 2021–2027. Two key steps remain as of this writing: securing support from European and national parliaments, which will vote on the deal in the coming weeks.

Consequently, 2020 could yield even more than was hoped at the start of the year. The EU's hybrid package would respond to the needs of member states hard hit by Covid-19 and also advance the goal of climate neutrality by 2050. The EGD's Just Transition Mechanism provides funding—and thus political cover—for Poland and other climate-cautious countries. For the EU, 2020 could represent a victory that allows it to extend its long-claimed leadership in global climate policy. For Poland, success in securing this package will mean that it commits itself unambiguously to the decarbonization of its coal-dependent energy sector.

This piece surveys the challenges facing EU climate policy in 2020, as the bloc seeks both to chart a course to midcentury decarbonization and to respond to a pandemic that has paralyzed economies and upended lives across Europe. The Warsaw-Brussels lens is valuable because of Poland's long reluctance to commit to decarbonization and especially a transition away from coal, which the country relies upon more than any other EU member state. This lens is also useful because the dialogue about future climate policies occurs against a complicated political dynamic. If the EU is to achieve its decarbonization goals, it must do so by securing participation from the climate cautious, even if other political or economic considerations create distractions.

The specifics that this piece examines are inherently European. They reflect the history, aspirations, governance structures, politics, wealth, and economic health of the EU. Nonetheless, the difficult interactions between Brussels and Warsaw over the EGD proposal provide an important example of the broad types of headwinds facing climate policy making all around the globe, not just in Europe. Effective and enduring climate solutions require visionary ambition and wise policies that respond to the urgency of climate science. Climate solutions also require political pragmatism, principled dealmaking, and effective implementation.

The stakes of this European story are significant for people all around the globe: Any true solution for climate change can be credible only with meaningful and timely action by the major emitters of greenhouse gases (GHG)—Europe, along with the United States, China, India, and others. Europe also provides useful examples in climate diplomacy; technological, financial, and business innovation; and policy.

Europe's tensions between the climate ambitious and the climate cautious are echoed in different specific forms around the globe. Decision-makers in the United States need to ensure that coal, oil, and gas workers—as well as their families and local communities—are not left by the side of the road as the United States accelerates and deepens its response to climate change. So, too, leaders in Beijing, New Delhi, Canberra, Jakarta, Tokyo, Seoul, and elsewhere need to determine what kind of a future lies ahead for workers in high-emitting industries. Europe's efforts to forge a Green Deal in 2020 and sustain momentum in the face of Covid-19, then, may hold broad lessons that others can learn from.

This piece reflects research conducted in English- and Polish-language sources as well as over two dozen interviews with analysts, experts, businesspeople, academics, and senior officials in Brussels and a number of EU member states, especially in Poland. Many of the interviewees spoke on the condition of anonymity; others are quoted with permission.

The first section surveys the history of climate and energy policy making in the EU culminating in the proposed EGD. Second, this piece turns to Poland as a member of the EU—its current politics, the overall relationship between Warsaw and Brussels, and the country's energy resource mix as part of EU energy markets. Third, the focus is in particular on Poland's outlook on climate solutions. Fourth, the piece assesses prospects in the second half of 2020 for Warsaw-Brussels climate debates and the proposed green recovery package: Can a grand bargain between Brussels and Warsaw be completed—a deal that could enable sustained momentum on climate even in the face of the pandemic's shocks to European economies? Last, the piece looks outside the Warsaw-Brussels dynamic, and outside Europe in general, to consider possible implications for other countries and regions.

The Road to an EGD

Since the emergence in the late 1980s of widespread concern about human-caused global warming, the EU has sought to distinguish itself—and indeed strengthen itself—through leadership in this arena.

The EU and Environmental Policy Making

Today's EU grew out of a post–World War II, six-country treaty that sought to create common ground among historical foes by creating a common market in steel and coal (in this narrow sense: energy) and through this mechanism facilitate trade and peace in Europe. By the time that climate change emerged onto the global stage in the late 1980s as the highest-profile international environmental challenge, 12 countries had signed the Single European Act, which created the European Community and called for the establishment of a single market. The Maastricht Treaty of 1992 formed the EU; expanded its remit from economics to justice, home affairs, and common foreign and security policy; and strengthened the role of the European Commission's institutions.

Through this same period, international environmental governance experienced significant development. Discovery of the hole in the stratospheric ozone layer precipitated the Vienna Convention in 1985 and then in 1987 the Montreal Protocol on ozone layer protection. These agreements suggested that the global community could identify and enact solutions to major environmental threats. In 1990, responding to emerging science about the link between human-caused emissions of GHGs and climate change, ministers gathered for the Second World Climate Conference in Geneva and called for the development of a climate convention by the time of the United Nations (UN) Conference on Environment and Development (or the Rio Earth Summit) in June 1992.

In the lead-up to Rio, the European Commission played an increasingly vocal and active role—especially in negotiations for the UN Framework Convention on Climate Change (UNFCCC). In fact, the Earth Summit was the first major international event at which the European Community sought, and after long diplomatic wrangling secured, agreement that its head of delegation be accorded treatment equivalent to that of a head of state.

The fall of the Berlin Wall and the end of the Cold War in the early 1990s opened a period of optimism and opportunity. An increasingly integrated Europe was emerging and asserting a new governance model—one built around cooperation, integration, and the promulgation of shared norms and laws within the EU. Environmental protection took on a central role—serving as a theme that mobilized popular support in old and new EU member states alike. In 1997, the Treaty of Amsterdam declared sustainable development as a fundamental objective of the EU. The European Parliament, citizen groups, and many EU-based companies called for efforts to translate EU environmental provisions into international agreements and governance. Protecting the environment—and especially the global climate—provided a means to extend the growing EU's soft power and a tool to press for economic opportunity.[3]

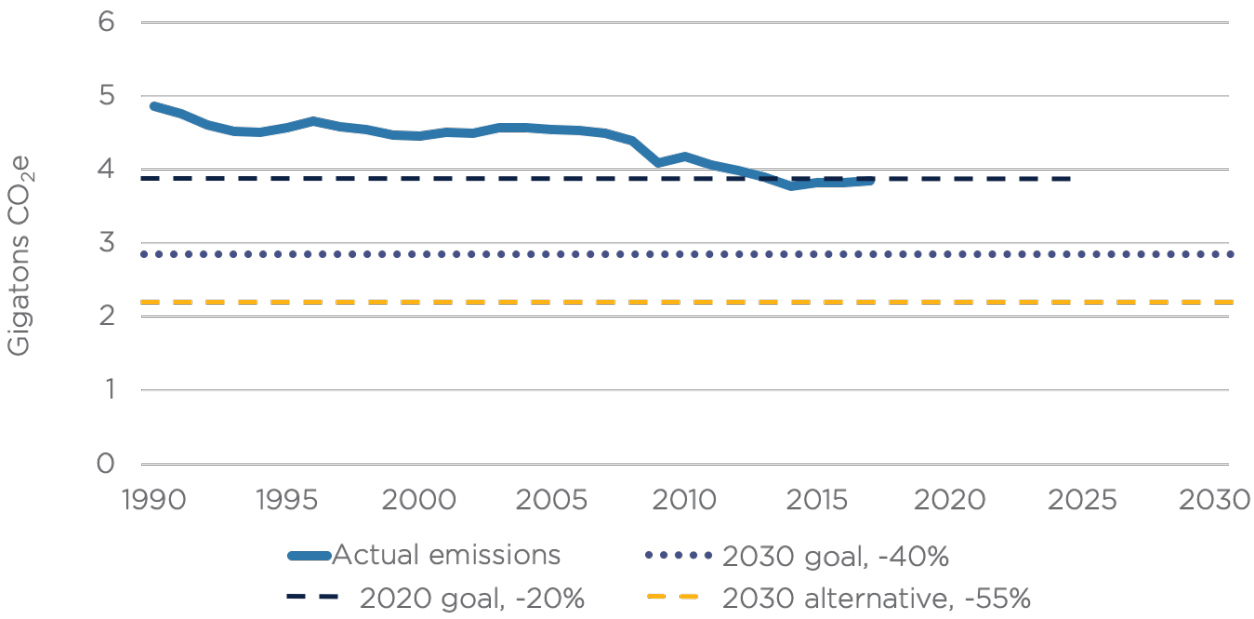
European leadership on climate proceeded steadily from the 1990s to the eve of 2020. Not always did EU climate policies succeed,[4] but climate nonetheless served as a rallying cry for the expanding EU's identity, and it occupied a high priority for policy makers. In the run-up to the UNFCCC's 21st Conference of the Parties (COP-21) in late 2015, all the relevant institutions of the EU worked in concert with the French diplomatic system to ensure a successful outcome—the Paris climate agreement.

Emergence of the EGD

From late 2015 to late 2019, the public clamor for more aggressive climate policies grew more insistent across Europe. In autumn 2018, the UN's Intergovernmental Panel on Climate Change issued a special report assessing the difference in effects arising from a global average temperature change capped at two degrees versus one-and-a-half degrees Celsius and the scale of actions required to realize the lower temperature limit. Swedish climate activist Greta Thunberg started what grew into a global series of student strikes—"Fridays for Future." That civic mobilization and increased interest to act on climate may have also supported a "green wave" that emerged from the 2019 EU parliamentary elections—which saw Green Party members win seats across the EU.[5] Also, a growing number of pension funds and other equity investors introduced shareholder propositions requiring investment transparency and even divestment in response to the changing climate. This increasingly pro-climate sensibility was not without contradictory sentiments, such as the yellow vest (gilets jaunes) protests against higher French fuel prices. Nonetheless, public expectations of climate action grew more and more urgent.

One consideration that complicates Brussels's ability to drive climate solutions is the matter of "competence" (legal authority) for policy making in energy and climate. Under the terms of the 2007 Treaty on the Functioning of the European Union (TFEU), energy was for the first time introduced into the EU legal framework. It was defined as a topic of shared competence between member states and the EU. The European Commission could therefore propose measures to promote security of supply; ensure the functioning of the energy market; promote energy efficiency, conservation, and new and renewable forms of energy; and promote energy network interconnections.[6] Matters like determination of the energy resource mix were to be determined at the national level. In regard to environmental protection, by contrast, the EU takes precedence over the member states in regard to competence.[7] Clearly, then, on policy relating to climate and energy, overlapping competence creates a natural setting for divergent views about the proper role of EU decision-making and thus the potential for tensions between Brussels and the member states.

Figure 1: EU-27 greenhouse gas emissions by year versus goals



Source: Based on data from the European Environment Agency.

With this backdrop, in December 2019, the newly installed Commission president, Ursula von der Leyen, introduced her EGD proposal using soaring rhetoric. "The Green Deal is Europe's 'man on the moon' moment," she declared.[8] "It is ambitious; it is designed to be just; it is made in Europe for Europe to lead the way to climate neutrality in 2050. Europe has always given its best when … we are bold and aim high. With the Green Deal, we are aiming high."[9]

Unlike the US Green New Deal, which was proposed by a number of US Congress members but to date not translated into specific legislative proposals, the EGD was designed around legislative and executive action that has already started to be debated, refined, and prepared for implementation. The EGD calls for the implementation of 50 initiatives across industry, buildings, mobility, agriculture and food processing, land use and forestry, finance, research and development (R&D), pollution control, budgeting, trade, international development, diplomacy, and more. Among its more prominent elements are the following:

- A legally binding target of climate neutrality (defined as no net emissions of GHGs) for the EU by 2050, to be enshrined in a new climate law
- More ambitious emissions targets for 2030—either 50 percent or 55 percent below 1990 levels, rather than the present target of 40 percent
- A major public consultation exercise labeled as the EU climate pact

- Trade measures to protect energy-intensive, trade-exposed industries through a border carbon adjustment that would apply to imports from jurisdictions not controlling carbon emissions from those industries
- Extensive finance provisions, including the creation of a Just Transition Mechanism intended to ease the transition to a decarbonized energy system through bank lending and private investment, as well as grants from a Just Transition Fund[10]

Poland in the EU: Evolving Economic, Political, and Energy Relations

Benefits and Costs of EU Membership

Poland's entry into the EU in 2004 represented a major milestone for both the EU and Poland. Poland had chosen to bind its security to the North Atlantic Treaty Organization (NATO) in 1999. But if NATO accession defined Poland's fundamental defense posture, membership in the EU affected daily life more concretely and routinely. It represented the economic, and many say cultural, road forward. EU membership drew Poland toward a rules-based Europe that emphasized common values as the accompaniment to economic opportunity under a single market. Poland had to update its laws and practices as enshrined in the body of existing EU law referred to as the *acquis communautaire*.

This meant that Poland's EU membership brought many benefits but also some perceived costs. Poland received significant direct aid from Brussels that supported infrastructure and development goals and provided economic and personal opportunities such as the ability of Poles to travel, work, and study freely across the continent. Poland was also a country that had only just returned to true independence after leaving the Soviet bloc, so EU membership meant ceding some national decision-making on those matters where the EU has competence.

This reality fed friction. The shine of the EU and its institutions for a number of Polish groups and officials began to wear off. In the past few years alone, the domination of the conservative and, some would say, populist Law and Justice Party (PiS) over politics, business, media, and cultural life has only exacerbated the friction between Brussels and Warsaw on issues ranging from Syrian refugees to Poland's courts and rule of law.

The most pronounced case of such friction, rule-of-law issues, has pushed Warsaw-Brussels dynamics into uncharted political territory. In 2015, the PiS-dominated Sejm (parliament) rewrote the legal basis for the Constitutional Tribunal, only to have the revisions be found unconstitutional by that very court. Polish president Andrzej Duda replaced members of the Constitutional Tribunal with PiS party loyalists.[11] Later, PiS introduced new disciplinary rules that appeared to undermine the independence of the court system. The action elicited numerous criticisms from fellow EU member states, and the European Commission threatened to take the matter to the European Court of Justice.[12] This still-unfolding confrontation raised a daunting question: Are Warsaw and Brussels still committed to a future with Poland inside the EU?

Pursuing Polish Interests in the EU

Polish officials, who energetically sought to secure concrete benefits from EU membership for Polish citizens, developed a reputation in some Western EU capitals of always bargaining for

more—more cohesion funding, more concessional finance, more technical assistance. Among experienced European diplomats, academics, and businesspeople, these Polish bargaining tactics elicited a variety of reactions.

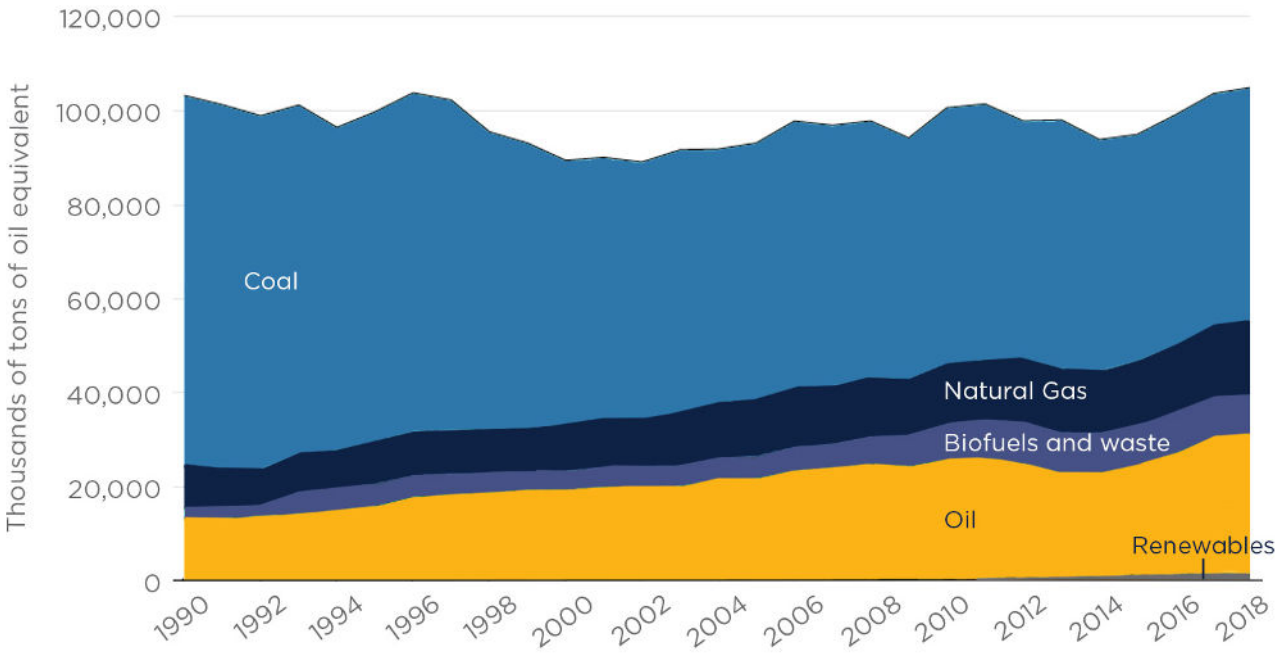
Some said that Polish officials were transactional and at times unproductively hardheaded.[13] Others insisted Polish officials behaved perfectly appropriately: they were dogged and sometimes successful in their pursuit of benefits for Poland. Speaking about negotiations, one senior official from a neighboring government noted, "Everyone plays the same game. They say that the energy transition is going to be very, very, very costly, and someone has to pay."[14] Some said that friction between and among EU member states was simply the price of doing business, something not to be exaggerated. A European diplomat argued that even in the face of the truly extraordinary challenges posed by the global pandemic, "there is a strong sense of solidarity. Who else do we have to rely upon? Just as in a family, there are some arguments. But we are a family. The typical mode of getting things done in the EU is to gather for meetings, where everyone shouts at each other about their respective positions. Then afterward, you go for a quiet coffee to agree on everything out of view of the cameras."[15]

Poles often note that they were the only EU country not to enter an economic recession during the financial crisis of 2008–2009 and have maintained consistent gross domestic product (GDP) growth ever since. Now, with another global recession unfolding due to the coronavirus, Poland again hopes to be well positioned to weather the potential storm. Its unemployment rate was 2.9 percent at the end of 2019. Poland's technocratic prime minister, Mateusz Morawiecki, stated in early June 2020 that Poland would experience one of the smallest effects on GDP of all EU member states.[16] As a former economist, the prime minister has worked to be seen as a pragmatist in Brussels even as his party expresses populist overtones and social conservatism. Despite public declarations by President Duda or by the true PiS leader, Jaroslaw Kaczynski, about defending coal at all costs, the Morawiecki government is creating opportunities for clean energy growth and the eventual transition from a coal-dependent power sector.

Poland's Resource Mix

Poland is a highly coal-dependent country today, although its total resource mix is less heavily reliant on coal in 2020 than it was in 1990. A number of factors, including coal-sector economics, air quality concerns, and policy priority for non-emitting energy sources, are reducing the centrality of coal in Poland.

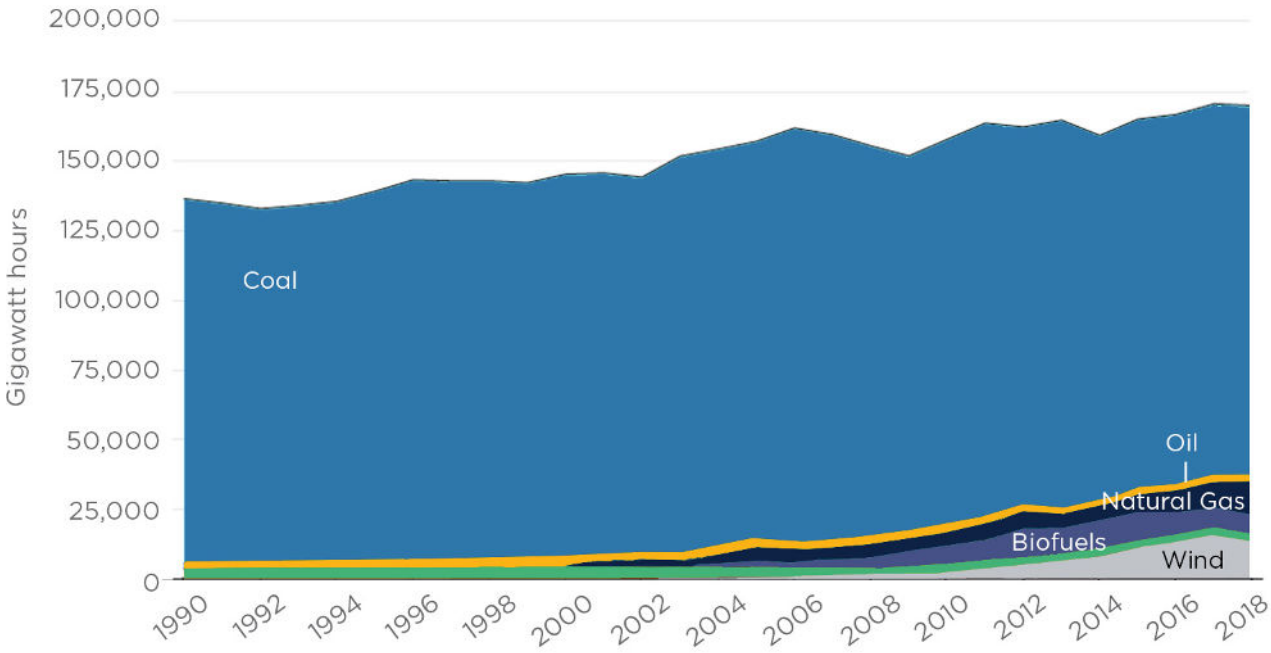
Figure 2: Poland's total primary energy supply by fuel, 1990–2018



Source: Based on IEA data from the IEA (2018) Monthly Oil Data Service, www.iea.org/statistics.

Immediately after the fall of the Berlin Wall, as socialist-heavy industry withered, Poland's energy sector was even more heavily coal dependent than it is today. As figure 2 shows, more than three-quarters of Poland's total primary energy supply was from coal. In the power sector in particular, coal's dominance was nearly complete, as figure 3 makes clear.

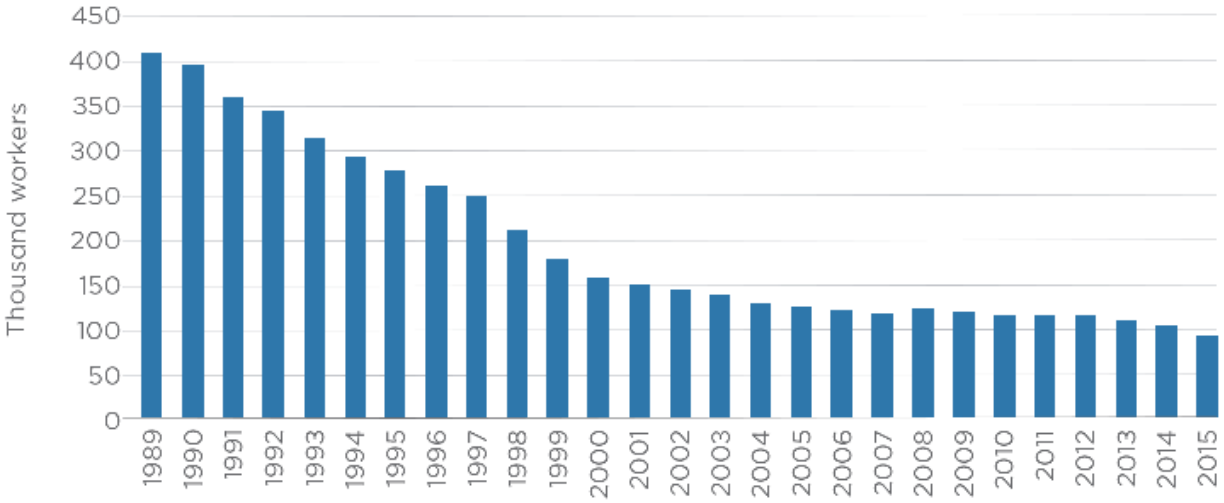
Figure 3: Polish power generation by fuel, 1990–2018



Source: Based on IEA data from the IEA (2018) Monthly Oil Data Service, www.iea.org/statistics. All rights reserved; as modified by the authors.

In the period since Poland entered the EU, several notable trends can be seen in the country's energy sector. First, in terms of total primary energy, Poland's consumption dropped from 1990 to 2000 as the economy transformed away from the socialist period's heavy-industry domination. Then, since 2000, consumption rebounded as Poland's economy returned to growth. Second, in total primary energy supply, coal represents a lesser share today than it did in 1990, especially because consumption of oil for transportation has increased by more than a factor of three.[17] Third, as shown in figure 4, employment levels in coal mining have dropped significantly since 1990—to one-fifth of the earlier level—as a result of both painful sectoral restructuring and increased mechanization. Even in the face of this trend, Poland's coal miners represent a disproportionate share of total European coal mining employment—43 percent of the EU total (from a country that represents 8.5 percent of the EU's overall population).[18] Fourth, coal's share in power generation has shrunk over time in part because of the growth of natural gas in power generation and even more because of renewable resources, driven significantly by EU energy targets.

Figure 4: Poland's employment in coal mining, 1989–2015



Source: Jan Baran, Piotr Lewandowski, Aleksander Szpor, and Jan Witajewski-Baltvilks,"Coal Transition in Poland," IBS—Institute for Structural Research, 2018, accessed June 10, 2020, https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Rapport/20180609_ReportCOAL_Poland-def.pdf.

Nonetheless, despite all the change occurring in Poland's energy sector over the past three decades, one thing has not changed dramatically: the quantity of coal consumed in electricity generation has remained more or less stable over the period from 1990 to the present day. And that has been true despite the significant contributions from Poland's heavy coal use to local air pollution. Poland's substandard urban air quality—caused by coal-fired boilers but also growing road transportation and even household trash burning—in certain regions is a severe challenge. Indeed, of the 50 European cities with the worst air quality, 36 are in Poland.[19] Premature deaths attributable to coal-related air pollution are estimated at 43,000 per year.[20] In 2020, public concern about air pollution has contributed to new remedial action by the Polish government.

A final aspect of Poland's energy situation has only tended to reinforce the country's coal reliance: its complicated situation with regard to natural gas. Poland historically depended heavily on Russia's Gazprom for natural gas supply, as one of the key supply lines from Russia to Central and Western Europe transited the country. The Polish-Russian gas relationship, however, gave rise to countless frictions in the post–Cold War period: Warsaw called out Moscow for engaging in predatory non-market-based behaviors intended to undercut the country's independence. Alternative, cost-competitive sources of gas supply were not immediately available, however. Poland therefore engaged in creating new import infrastructure. A liquified natural gas terminal at Swinoujscie entered service in 2015, and a new pipeline from Norway, the Baltic Pipe project, is slated to be commissioned in 2022. By comparison to gas, coal was Poland's *secure* fossil fuel option.

Impacts of EU Climate and Energy Policies

One factor influencing the changes in Poland's energy resource mix was the changes occurring in EU-wide energy systems. Using both its direct competence on the environment and its shared competence on energy, the EU has enacted a series of progressively more stringent targets for improving energy efficiency and increasing renewable energy resources, as well as reductions in the level of GHG emissions. In 2007, the EU agreed on a 20-20-20 package that called for 20 percent reductions in GHG emissions (below a 1990 baseline), a 20 percent improvement in energy efficiency, and a 20 percent share of each member state's energy consumption to be met by renewable energy sources by the year 2020. In 2014, the EU agreed on more ambitious targets—a 40 percent reduction in GHG emissions, a 32 percent share of total energy from renewable sources, and a 32.5 percent increase in energy efficiency. Then, with the EGD proposal in December 2019, President von der Leyen called for the 2030 target to be made more stringent still—a reduction of 50–55 percent in GHG emissions below 1990 levels.

In addition to providing an incentive for Poland to invest in renewable resources and energy efficiency, the successive rounds of EU targets placed pressure for a more structural change in EU energy systems—especially in electric power. As Christian Zinglersen, the director of the EU's Agency for Cooperation of Energy Regulators, noted, "The move toward carbon-free energy sources places a clear premium on more cost-efficient measures to reach these objectives. One possible tool in the tool kit for cost efficiency is increased market integration."[21]

The problem is that not everyone has greeted greater integration of electricity markets as an unambiguously welcome development. Poland, for example, was one of a number of EU states that found its electricity grid congested because it often serves as a conduit for so-called loop flows of electricity being generated in German offshore wind farms but having no direct route to reach demand centers in Germany's southern regions. Having to adjust Poland's domestic energy system in response to other countries' domestic decisions has unwelcome echoes for a country that partitioned three times and was occupied many more by its neighbors. Leszek Jesien, director for international cooperation at the Polish electricity transmission system operator, commented on Poland's challenges in balancing the need to protect the resilience and security of its own energy system while also remaining part of an increasingly integrated EU power market: "In Poland, we sit at the edge of a synchronous system. We profit from that interconnected system, but we are acutely aware of the fragility of our own situation."[22] In the view of several Polish energy experts, Germany's lack of sufficient north-south transmission capacity inside its own territory had forced Germany's neighbors to resort to undesirable but necessary defensive responses: all of Germany's neighbors, one such expert said, are installing power flow management devices, such as phase shifters, that impede the flow of German power spilling over into neighboring grids.[23]

In addition to technical grid management concerns, some viewed the increasing integration of EU power grids as an intrusion into sovereign decision-making by EU member states. Piotr Naimski, Poland's state secretary and plenipotentiary for strategic energy infrastructure, expressed this concern on climate: "We share the strategic objectives. We are not fighting against climate policies. Today, we may have 80 percent reliance on coal and lignite, but we

are already in transition." Nonetheless, Naimski noted, "In Poland, we reserve the right to have the last word on energy sector issues because of security concerns. This is partly why we have focused so much on transboundary interconnections. Some people in the EU treat energy market integration as a tool for further political integration. These are issues that cannot be solved at the level of businesses without a political compromise. National governments are responsible for energy security."[24]

Where Poland Is Headed on Climate

Contradictory Messages about Coal and Climate

Poland has hosted the UNFCCC's annual COPs on three separate occasions in the last two decades, second only to Germany as the most frequent host.[25] But hosting COPs has not alone made climate a higher priority in Polish politics or its foreign policy. In fact, official Polish pronouncements have often been internally contradictory and thus confusing to parties outside the country.

For example, in late 2018, in remarks at the opening of COP-24 in Katowice, an event whose stated objective was to develop the detailed rule book to implement the Paris Agreement that aims to limit climate change to "well below two degrees Celsius," Polish president Andrzej Duda noted that his country has coal reserves sufficient for 200 years[26] and claimed that use of that coal "for the sake of energy security does not clash with climate protection."[27] Delegates in the hall were speechless. The very next day was Barbórka, Poland's annual Miner's Day, dedicated to Saint Barbara, the patron saint of miners. In a speech at a union celebration, Duda went even further: "Please don't worry—as long as I am the president, I will not allow anyone to murder Poland's mining."[28]

Nonetheless, something appears to have changed since COP-24. Since then, Polish politics and culture have moved, albeit slowly, toward a greater recognition of climate change as a threat and the transition away from coal as unavoidable. To be sure, political rhetoric and tweets do not always translate into concrete action by diplomats, ministers, energy executives, and investors to create a Poland that is less reliant on coal and is in line with the EU's 2050 climate goals. But Poland, and the centrality of coal, appear to be changing.

For starters, in terms of economics and energy security, Poland's situation is shifting. The argument that Poland's domestic coal serves as the country's energy security blanket and is essential to counterbalancing any effect of energy imports has grown weaker due to recent market developments. Poland has been importing vast amounts of cheap coal from Colombia, South Africa, and even Russia to meet demands, showing that prices dictate economic and energy security decisions, despite standard political rhetoric.[29] New coal-fired generation plants also encountered headwinds when, in May 2020, two major Polish utilities withdrew their funding from GE's new Ostroleka power plant, thus dooming the 1 gigawatt project that was hailed by PiS in 2016 as part of a coal renaissance.[30]

The Polish mining conglomerate Polska Grupa Górnicza has also had to rework pensions and contracts with thousands of miners to keep certain entities profitable. Protesting miners responded by blocking rail lines used for imported Russian coal while domestic supplies piled

up and sat idle.[31] Even the coronavirus exposed the frailty of these mines and communities, as the pandemic has brought outsized health and financial pain to Poland's coal regions compared with the rest of the country. The economic effect of temporarily closing mines to keep the virus from spreading was compounded by the fact that most of these areas also suffer some of the worst air quality in Poland, which only increased the number of Covid-19 cases and respiratory illnesses.[32]

Changes in Public Opinion on Climate

Not only sectoral economic factors are pushing coal further to the margins in Poland's energy resource mix. Public opinion polling has also shown that a consistent majority of Poles view climate as a serious issue requiring action. In an EU Eurobarometer survey from April 2019, for example, 7 in 10 Polish respondents considered climate change to be a "very serious" problem (compared with the EU average of 79 percent), an increase of 12 percentage points since 2017.[33] There was also a vast majority in support of deploying renewables or increasing forestry to reduce GHG emissions.

A September 2019 poll in the *Guardian* newspaper surveyed more than 1,000 people in Brazil, Canada, France, Germany, Italy, Poland, the United Kingdom, and the US. It found that at least three-quarters of the public think the world is facing a "climate emergency," with climate breakdown at risk of becoming "extremely dangerous."[34] The share of Poles who "agreed strongly" that climate is a risk equaled the share of French respondents. Moreover, more Poles than Germans "strongly agreed" or "partially agreed" that climate is a threat.

Public concern about the global climate crisis has not simply manifested itself in social dissatisfaction in Poland. That dissatisfaction may have been fed indirectly by the very economic growth and opportunity of which the Polish government has been so proud. A significant literature suggests that, around the globe, greater prosperity correlates with greater appetite for climate and other environmental protection.[35]

Concern about climate change has also fused with unhappiness about local air pollution issues and triggered concrete action by the Polish government. In early May 2020, with first-round presidential elections only weeks away, President Duda, flanked by Climate Minister Michal Kurtyka, announced the Czyste Powietrze 2.0 (Clean Air 2.0) Initiative that promised to mobilize over 100 billion złoty (more than $25 billion—a sizable sum given the scale of the Polish budget) to renovate thousands of homes and replace outdated home heating systems.[36]

It is noteworthy that the newly formed Ministry of Climate was charged with coordinating this domestic initiative with the National Fund for Environmental Protection. This decision signaled a change of posture for the government. No longer were emissions from coal boilers, trash burning, and transportation fuels shrugged off as the unavoidable result of energy poverty and energy insecurity. Instead, they were treated as part of a larger, systemic issue that had to be addressed, even if doing so required the Polish government to mobilize significant resources. For the first time in recent memory, local antismog and civic advocacy groups as well as environmental nongovernmental organizations publicly supported and praised the government's proactive policy.

Thus, despite contradictory messages about climate protection from the Polish government, the prospects for a serious Polish decarbonization effort look different today than they did less than two years ago at COP-24 in Katowice. The economic foundations of the Polish coal industry are weaker; public opinion about climate and local air quality suggest broad concern and even potential political dissatisfaction, and the government has demonstrated a readiness to mobilize itself to start tackling large-scale systemic issues.

What, then, could lie ahead for Poland's coal-dependent regions if the country moves forward in a serious manner on a transition away from coal and toward a decarbonized energy system? What possible investments could be encouraged, and what government mechanisms would need to contribute?

In terms of priorities for future investment, the Polish government referred frequently to a number of industries: offshore wind, civilian nuclear power, electric vehicle manufacturing (including battery production and electric bus production), and new energy R&D.[37] To be sure, not all 80,000 Polish coal miners could shift overnight to installing wind turbines or working on electric vehicle assembly lines. The transition will take time, expertise, strategic planning, prioritization, and investments from both public and private sources. To secure funds under the EU's Just Transition Mechanism, coal-dependent regions would need to prepare "territorial just transition plans" covering the period up to 2030, and the European Commission will also make available technical assistance to help affected territories develop their strategies. Poland's transition to the carbon-neutral energy future foreseen in the EGD will require all the capabilities of the government in Warsaw, working carefully in the context of the regions' priorities and with partners from Brussels and elsewhere.

Future of the Brussels-Warsaw Climate Debates and the EU's Green Recovery

If the climate policy decisions to be made in 2020 were complex before the arrival of Covid-19, they grew even more challenging against the backdrop of the pandemic. None of the dimensions in the Brussels-Warsaw dialogue have been simple to resolve: the von der Leyen Commission's commitment to speed up significantly the decarbonization of the EU economy; the need to manage the economic and political implications of the Polish coal industry's long and difficult decline; the visible misalignment of Poland and the EU over basic rule-of-law principles; the frictions arising from negotiations over burden sharing; tensions over climate, energy market integration, and energy security considerations; and recovery from the economic effects of the novel coronavirus. The EU's "man on the moon" moment turned out to be far more complex than anyone could have anticipated.

Despite that stark reality, in the wake of the European Council's July agreement, a successful political bargain is nearly complete. The elements of the deal incorporate: a post-Covid recovery plan with climate-friendly elements, agreement on the seven-year EU budget (the Multiannual Financial Framework) for 2021–2027, an EU-wide goal of climate neutrality by 2050, investments in emerging carbon-free technologies, and a Just Transition Mechanism that can provide economic support and political cover for decarbonization in climate-cautious parts of the EU like Poland (which, however, is only fully accessible if each country in question

commits itself to climate neutrality by 2050).

The European Council's July 21 deal deviates from the Commission's May 27 proposal in some regards and was criticized by some pro-climate observers because it was perceived as retreating from some of the features proposed in May.[38] Nonetheless, the Council's recovery proposal has several important features for climate protection and economic recovery. First, more than half of the updated 750-billion-euro Next Generation EU package would be provided in the form of grants, with the remaining third being concessional loans.[39] Second, in an unprecedented move, the EU would issue bonds on debt markets—a joint proposal from Germany and France that eventually secured support from other members in the European Council. Austria, Denmark, the Netherlands, Sweden (the so-called frugal four), and belatedly Finland expressed opposition to the idea of EU borrowing, as it would create for the first time shared fiscal liabilities at the EU level. Such concerns significantly raised the degree of difficulty for securing agreement—exactly when the economic hardship called for speedy decision-making.[40] These fiscally conservative countries, however, have also all historically favored aggressive action on climate. It appears that the European Council's package deal allowed common borrowing and reduced amounts of grant funds in exchange for climate protection measures substantially as prescribed in the EGD.

Third, although designed and primarily billed as a post-pandemic stimulus package, the proposal emphasizes *green* recovery. Thus, certain elements in the package were directed to member states such as Italy and Spain that were hit especially hard by Covid-19, and EU officials underscored repeatedly that funds for these purposes would "do no harm" to the climate.[41]

Moreover, the package specifically reiterates the Commission's December 2019 proposal of the key individual elements of the EGD proposal (the more aggressive 2030 emissions reductions targets, the climate law, the green investment criteria or "taxonomy," the border carbon adjustment, and the Just Transition Mechanism).[42] It also includes several specific, new components aimed at decarbonization of the EU economy. The proposal amounted to a repudiation of the calls from various Central and Eastern European officials that the EGD be shelved to give full attention to post-pandemic recovery.[43] The specific clean energy components of the proposal, some of which might not be typically seen in a stimulus-only recovery package, reportedly included funding for energy efficiency of buildings; electric vehicle technologies and battery R&D; renewable energy and energy storage technologies; clean hydrogen R&D; carbon capture, utilization, and sequestration projects; and the Just Transition Mechanism.

To focus on the Just Transition elements alone, the Next Generation EU includes a significant increase in the scale of the grant support under the Just Transition Fund. The fund is now proposed to be valued at 40 billion euros of grant monies, a fivefold increase from the 7.5 billion euros in the initial Commission proposal of December 2019. These funds are intended to leverage additional capital from private and public lending sources, totaling more than 150 billion euros in all through 2027. The increase was notable in part because the 40-billion-euro version of the Just Transition Fund was of the same order of magnitude as Germany's 18-year, 43-billion-euro coal phaseout plan that Berlin announced formally in January 2020.[44]

Polish officials, long seen as the most cautious of the EU's "climate cautious," reacted

positively to the May 27 version of the Next Generation EU proposal. Prime Minister Morawiecki said on Twitter that the May proposal to augment the Just Transition Fund was "very good news. Modern Europe must be ready for the challenges it faces and thus needs new resources." The Next Generation EU's proposed additional funding for the Just Transition Fund, EU cohesion funds, and agricultural supports, he said, "are all steps in the right direction."[45] Michal Kurtyka, Poland's first-ever minister of climate, said, "We are very happy with the proposal. What is important is that the EU is thinking not just about the transition it *wishes* for, but also about the means to get there."[46] The European Council agreement from July 21 trimmed the funds available to Poland and created a conditionality under which Poland's access to those funds would be reduced by 50 percent if it failed to commit to climate neutrality.[47] Nonetheless, PM Morawiecki pronounced himself satisfied by the outcomes in Brussels and claimed credit for his Central and Eastern European neighbors: "Europe needs a financial injection now. The joint work of the Visegrad Group has led to this success."[48]

Even with support from the Just Transition Fund as agreed by the European Council, Poland's transition away from coal will still present a number of challenges. One such challenge will be the need for quick and effective implementation of the transition. Accumulated lessons on regional economic development emphasize the importance of building redevelopment strategies and plans from the bottom up with the participation of local stakeholders.[49] Poland will have a finite amount of time in which to develop and implement the redevelopment programs, and a number of experts interviewed by the authors stressed the importance of Poland's putting the allocated funds to productive use. This will not be a simple task. A Polish energy expert, Dr. Honorata Nyga-Lukaszewska, expressed this concern: "Implementing [regional and local] energy transition programs may be challenging for Poland due to economic and social issues. Therefore, any such efforts must be preceded by in-depth, comprehensive, and multi-stakeholder analysis."[50]

Another challenge, related to the first, will be the need to secure other investment from both private and public sources in a scale significantly greater than the monies coming through the Just Transition Fund. Even assuming that Warsaw eventually commits to the midcentury decarbonization target, it will need to raise funds far exceeding the Just Transition Mechanism's allocations. Factories need to be built, supply chains established, workers retrained, infrastructure constructed. Moreover, it will be critically important to use all the public and private funds effectively to put the post-coal economy of regions like Upper Silesia on a new footing. In the words of Dr. Joanna Mackowiak-Pandera, president of the Polish energy think tank Forum Energii, "The funds will not be granted unconditionally. It will be necessary to develop, within a few months, plans to abandon coal, plans to reduce emissions, and proposals for clean investments."[51]

This is true in part because of another challenge that will remain during the implementation of Poland's transition away from coal dependence: the perceived political sensitivity of the undertaking. A senior Polish think tank analyst expressed a sense of caution about the transition away from coal: "Silesia is about 5.4 million people. That's a hell of a lot of voters. … It's very difficult for the government to earn the trust of miners."[52] By contrast, a senior environmental leader, Dr. Andrzej Kassenberg, expressed the view that some aspects of the transition's sensitivity had been exaggerated. He noted a different consideration: people in

the affected regions will watch the transition effort with a very critical eye and ask: "A 'just transition' for whom? For politicians? For miners? For trade unions? For society?"[53]

The head of the government-supported Polish Economic Institute, Dr. Piotr Arak, noted the positive political effect that could be created by strong transition support from Brussels: "It is very important for the government to be able to claim success with Brussels. You need something to show as a success on the international level if you are to go ahead with [decarbonization]."[54] Even as Poland transitions away from coal, the political sensitivity of that transition will present challenges.

Implications for Those Outside Europe

Are there lessons in Europe's experience that are relevant to decision-makers in other countries? If there are, they must be considered very carefully and without oversimplification. Every country or region reflects its own history, culture, governance systems, economic structures, security concerns, environment, and more. No cookbook recipes will emerge from the EU's climate debates in 2020. Nonetheless, three broad points rise above the specifics of the European setting and may merit consideration by readers in the United States and elsewhere.

The first point—although it is still premature for definitive statements until the legislatures ratify the deal—is that political pragmatism can serve to enable political solutions that sustain momentum on climate mitigation. Response to climate change will require decades of sustained—indeed accelerating—effort. That effort will need to be enabled by innovative new technologies that reduce the cost of a progressively decarbonized global economy. But climate change is not a policy challenge that is fixed in one go and then forgotten. As several analysts have noted, the GHG emissions reductions that are estimated to be occurring in 2020—due to the devastating pandemic—are smaller or perhaps on a par with the percentage reductions in emissions that are needed *on an annual basis* if efforts to limit aggregate global warming to one-and-a-half degrees Celsius are to be successful.[55] So even in the face of economic upswings, which tend to drive emissions upward, or changes in national political leadership, or profound non-climate political differences, as have been seen between Brussels and Warsaw during the PiS-led governments, pragmatism and dealmaking to sustain climate progress are required.

A second point that emerges is the limited effectiveness of climate policy leadership built around either virtue signaling or attempting to shame other parties. Instead, there is a need for resource flows that help foster political support for the needed transformation. Poland's stubborn reliance on coal in its energy resource mix at one and the same time stems from short-term concerns—domestic employment, energy security, and political sensitivities—but has predictable short- and long-term effects: the burning of coal and other substandard fuels is killing Polish citizens today, and it is contributing to the warming of the globe. Addressing Poland's fuel choices necessarily requires the participation of Poland in finding solutions.

The EU's Just Transition Mechanism can play an important role here not because it alone will alleviate all the economic, social, and community impacts of an accelerated transition away from coal. Rather, its value lies in facilitating the mobilization of domestic and international public and private resources and critically because it signals to people in coal-dependent

regions like Silesia that they are not being abandoned or forgotten. Similar dynamics have already played out in Poland's neighbor Germany, as it designed its (much larger) program to phase out coal by 2038. Likewise, other countries as diverse as Australia, China, India, and Japan will need to engage and involve their coal-dependent regions in transitioning away from high-polluting energy systems. And the same challenge exists in the United States, where significant numbers of citizens worry that the ongoing and dramatic reduction in coal use, and the prospect of climate-driven reductions in oil and natural gas usage, will leave them without paychecks or prospects.

A third and final implication that arises is the importance of a truly global response to climate change. As noted, the EU has long prided itself on its leadership in responding to threats to the global climate system. In 2020, despite longstanding internal East-West tensions over EU climate policy, despite significant non-climate political alienation between Warsaw and Brussels, and despite the need to fix the wreckage brought by the novel coronavirus, the EU seems poised during the German EU presidency to cement a grand bargain that locks in the EGD. If this happens, it is a tribute to strong and effective climate leadership in both Brussels and Warsaw and in other European capitals. But that victory will not solve the threat of global warming.

Just as Brussels needs Warsaw to reach a successful outcome on the EGD, so, too, Europe needs partners all around the globe. In the United States, some political leaders and commentators have gotten into the habit of noting ritualistically that American climate policies will be ineffective if China does not carry its share of the burden. This is undoubtedly true. No less, the same is true in reverse. Policy makers all around the globe must acknowledge and respond to the fact that certain communities in their countries are just as climate cautious as Poland's Silesia. If the climate cautious as well as the climate ambitious are enlisted, and if a truly global effort is achieved, then there is the chance for a future with both economic and climate security for people around the globe. Nothing less will suffice.

Notes

1. John Parnell, "EU Green Deal Should be Cancelled Because of Coronavirus, Czech PM Says," *GreenTech Media*, March 17, 2020, accessed June 12, 2020, https://www.greentechmedia.com/articles/read/eu-green-deal-should-now-be-canceled-says-czech-pm.

2. For simplicity, in this piece the authors refer to both steam coal and lignite as "coal."

3. Different analysts attribute the EU's strong focus on environmental policy to different causes. Some say that environmental protection was unassailable with the general public. Others explain this focus as an attempt to "internationalize" domestic standards, for the benefit of European industry. For more, see: R. Daniel Keleman, "Globalizing European Union Environmental Policy," *Journal of European Public Policy* 17, no. 3 (2010).

4. As one example of an unsuccessful proposal from the pre-Rio period, EU policy pushed for a binding agreement that wealthier countries alone stabilize CO_2 emissions at 1990 levels by the year 2000—a dramatic-sounding proposal. At that stage in the evolution of

climate policies, however, insufficient thought had been dedicated to policy effectiveness and implications. Had the EU's Rio cap been agreed to, it would have resulted in massive "emissions leakage," in which emissions from one jurisdiction move to less-regulated jurisdictions without actually reducing overall GHG emissions.

5. Dave Keating, "The EU Election's 'Green Wave' Is Set To Transform Energy Policy," Forbes, May 27, 2019, accessed June 15, 2020, https://www.forbes.com/sites/davekeating/2019/05/27/the-eu-elections-green-wave-is-set-to-transform-energy-policy/#7bccd334bc6f.

6. This is prescribed under Article 194 of TFEU; see "Glossary of summaries—Energy," EUR-Lex, accessed June 10, 2020, https://eur-lex.europa.eu/summary/glossary/energy.html.

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11. Alexandra Brzozowski, Lukasz Gadzala, and Mateus Kucharczyk, "With New Judiciary Appointments, Poland Further Escalates Row with Brussels," Euractiv.com, November 26, 2019, accessed June 10, 2020, https://www.euractiv.com/section/justice-home-affairs/news/with-new-judiciary-appointments-poland-further-escalates-row-with-brussels/.

12. Michael Peel, James Shotter, and Valerie Hopkins, "EU Launches Legal Action against Poland," Financial Times, April 29, 2020, accessed June 10, 2020, https://www.ft.com/content/c5875cee-4af1-4b1f-a836-24d7d0cc1fa3. It is worth noting that the lead emissary from Brussels interacting with Warsaw on these constitutional controversies from 2015 to 2019 was Frans Timmermans. In the Commission of Jean-Claude Juncker, Timmermans was first vice president of the European Union and carried a portfolio that included rule of law issues. Today, Timmermans serves as President Ursula von der Leyen's executive vice president, where he is the Commission's point person for the European Green Deal.

13. Authors' private interview—confidential comment from a senior European businessperson, May 2020.

14. Authors' private interview—confidential comment from a senior European official, May 2020.

15. Authors' private interview with Ambassador Vaclav Bartuska, Ministry of Foreign Affairs of the Czech Republic, May 2020. Bartuska's perspective was validated by some of the

statements by heads of state and government after the announcement of the July 21 agreement of the European Council. The Dutch Prime Minister Mark Rutte, for example, said, "We're here because everyone is taking care of their own country, not to go to each other's birthdays for the rest of our lives." See: Matina Stevis-Gridneff, "E.U. Adopts Groundbreaking Stimulus to Fight Coronavirus Recession," *New York Times*, July 21, 2020, accessed July 21, 2020, https://www.nytimes.com/2020/07/20/world/europe/eu-stimulus-coronavirus.html?action=click&module=Well&pgtype=Homepage&section=World%20News.

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17. Data drawn from International Energy Agency, data and statistics website, accessed June 9, 2020, www.iea.org/data-and-statistics.

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23. Authors' private interview with a senior Polish energy expert, May 2020.

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28. Berendt, "Playing Host."

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49. For example, see: P. Alves Dias, "EU Coal Regions: Opportunities and Challenges Ahead,"

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51. Authors' private correspondence with Dr. Joanna Mackowiak-Pandera, president, Forum Energii, July 2020.

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