

## **Aktuelle Entwicklungen im Europäischen Integrationsprozess 2. Teil**

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### **Aktuelle Entwicklungen im Europ. Integrationsprozess – Themen des 2. Teils:**

- The EU Budgetary Package 2021-2027: An Assessment
- EU Convergence from the Perspective of Climate Economics
- Energy supply: Dependence of and on Russia

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## The EU Budgetary Package 2021-2027: An Assessment

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### Overview of the main legal elements of the budgetary package

#### Expenditures:

- Multi-annual Financial Framework (MFF) ... 'the financial framework'
- EU Recovery Instrument 'Next Generation EU' (EURI-NGEU) ... 'the recovery instrument'
- 'Rule-of-law' regulation: Regime of conditionality for EU budget protection
- Sectoral legislation for spending programmes (under MFF and EURI-NGEU)

#### Revenues:

- Own Resources (OR) decision by the Council
  - Without requirement of European Parliament (EP) consent
  - Ratification by national parliament of each MS required and achieved

#### Inter-institutional agreement (IIA):

between European Parliament, Council and European Commission

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### Main multi-annual figures and spending structure

Commitment appropriations	Expenditures	Loans
EUR billion, in 2018 prices		
MFF 2021-2027	1,074	
<b>EURI-NGEU 2021-2023 (paid until 2026)</b>	<b>390</b>	<b>360</b>
<b>Total</b>	<b>1,464</b>	<b>360</b>
<b>75% of total expenditures in 4 areas; 100% of loans in 1 area:</b>		
1. Agriculture and Maritime Policy	24%	
<b>2. Recovery &amp; Resilience</b>	<b>23%</b>	<b>100%</b>
3. Regional Development and Cohesion	20%	
4. Social Cohesion and Values	8%	
<i>Note: Expenditures include grants and provisions for guarantees.</i>		

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### Comment 1: The EU budgetary package 2021-2027 is a major step forward

#### **EURI-NGEU enhances the MFF:**

- Common EU response to COVID-19 impact
- To advance cohesion, growth potential, climate-related structural change
- Funded by common capital market borrowing
- Backed by (suite of) pro-rata guarantees by MS for net repayments due 2027 to 2058
- To fund repayment: Roadmap agreed for new OR

#### **Stronger focus on climate policy:**

- Raise overall climate target to 30% of total expenditures (MFF + EURI).
- Fund 30% of EURI via issuance of 'green bonds'
- New climate-specific program 'Just Transition Fund' (social support to exit climate-damaging production)

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## Comment 2: The EU budget remains tiny, even when including EURI-NGEU

### **Total expenditures (MFF + EURI-NGEU) amount to only 1.5% of EU GNI**

- These are dwarfed by national public expenditures of 50% of GNI.

### **Compared to EU27 MFF 2014-2020 of 1.2% of GNI:**

- MFF 2021-2027 smaller by 0.1 ppt at 1.1% of GNI
- But: EURI expenditures add 0.4% of GNI
- → Total expenditures increase by 0.3 ppts to 1.5% of GNI

### **However, two areas face decrease of expenditures:**

- Agriculture (Direct payments, Rural Development)
- External action (Neighborhood, Development Coop., Humanitarian Aid)

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## Comment 3: The EU budgetary package is complementary to macro stabilization policies in place, including the EU central banks' QE

### **Macro stabilisation policy in response to the COVID-19 impact relies on national fiscal policy and national (EA: common) monetary policy**

To be aware of the order of magnitude:

- EA national sovereigns' net issuance rose to 9.5% of annual GDP (2020 Q1-3),
- while ECB's net public sector purchases on secondary market rose to 6.5% of annual GDP (2020 Q1-3).

### **EURI-NGEU is not an early and bold common EU fiscal stabilization policy effort**

→ **The lack of such an approach implies national public debt levels which are far higher and more heterogeneous as a result of COVID-19.**

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**Comment 4: EURI-NGEU may help finance COVID-induced fiscal deficits to a limited extent, while it will primarily boost public investment and structural reform**

**EURI may help finance COVID-induced fiscal deficits, albeit to a limited extent:**

- Max. 20% - 25% of total EURI volume can finance such deficits without raising national public debt.
- Moreover, the protracted approach until EURI funds are paid out limits their relevance for contributing to fiscal stabilization policy.

**Thus, EURI primarily has a focus on structural policy (not on stabilization policy):**

- Thereby, it faces a twin challenge:
  - Achieve preparing additional climate and digitization investment project volumes (min. 37% and 20% of Recovery and Resilience Fund expenditure, respectively) (with RRF expenditure = 80% of total EURI expenditure)
  - Within only short time stipulated for preparing high-quality investment projects

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**Comment 5: EURI-NGEU impact could be sizeable for the 17 EU Member States with below-average per-capita income**

**These MS are potentially particularly benefitting, with the aim to foster economic convergence within the European Union:**

- They are assigned about twice the average EU-allocated max. expenditure in % GNI
- They can share the available loan volume among them (with a cap of 6.8% GNI 2019) (other MS, except for BE, are unlikely to draw a loan due to the available financial terms)

**Among these MS, the assigned max. expenditure in % of GNI is largest for:**

- Croatia, Bulgaria, Greece – followed by Romania, Portugal, Slovakia, Latvia, Spain

**However: absorption and governance will be major challenges!**

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## Ad Comment 5: On the absorption of EU funds (1)

### Total allocated EU funds from ERDF, ESF and, if applicable, CF

(ERDF: Europ.Regional Development Fund, ESF: European Social Fund, CF: Cohesion Fund)

Unweighted mean of EU Member States with above-average GNI p.c.      Unweighted mean of EU Member States with below-average GNI p.c.

#### MFF payment rates:

##### After 50% of the time for payments

(= after 71% of the time for commitments)

MFF 2007-2013 (2011)	39.7	32.9
MFF 2014-2020 (2018)	26.9	24.7

##### After 70% of the time for payments

(= after 100% of the time for commitments)

MFF 2007-2013 (2013)	66.9	61.4
MFF 2014-2020 (2020)	53.7	52.4

##### After 100% of the time for payments

MFF 2007-2013 (2016)	99.2	98.5
MFF 2014-2020 (2023)	n.a.	n.a.

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## Ad Comment 4 and 5: On the time-frame and the absorption of EU funds (2)

- **Multi-annual Financial Framework (MFF):**

- Full commitment period: **7 years**
- Full payment period: **10 years** (7y + 3y grace)

### Compared to:

- **Recovery and Resilience Facility (RRF):**

- Full **commitment** period: **3 years**
  - RRF Regulation: Art. 12 (2.) iVm Art. 23 (1.): Until 31 December 2022, the Commission shall make available for allocation 70 % of the amount ...
  - RRF Regulation: Art. 12 (3.) iVm Art. 23 (1.): From 1 January 2023 **until 31 December 2023**, the Commission shall make available for allocation 30 % of the amount ...
- Full **payment** period: **6 years** (quasi 3y + 3y grace):
  - RRF Regulation: Art. 24 (1.): Payments ... shall be made **by 31 December 2026**
- **Different conditionality than that of MFF structural funds:**
  - Mostly on public sector, education/training, green transition, and digitalisation

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## Ad Comment 5: Procedural state of play

- **22 EU-MS:**
  - RRP assessed by the Commission
  - RRP decided by the Council (Council implementing decision Art.20 RRF-Regulation taken)
  - RRP implementation ongoing, with first disbursements in summer 2021 (pre-financing up to 13%)
- **2 EU-MS (Bulgaria, Sweden): RRP finally assessed not until early May 2022**
  - Bulgaria: Elections (April, July, November), then cabinet formation until mid Dec. 2021.
  - Sweden: Government crisis, then cabinet formation until end Nov. 2021.
- **2 EU-MS (Hungary, Poland): RRP submitted but not yet finally assessed**
  - Conflict over the Rule of Law.
- **1 EU-MS (Netherlands): RRP not yet submitted**
  - Elections (17 March 2021), then cabinet formation until mid Jan. 2022.

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## Comment 6: The European Council cut the Commission proposal for crucial programs

### European Council decision on EURI-NGEU proposed by the Commission:

- It increased the share of loans to member states by € 110 bn and decreased total expenditures by € 110 bn, mainly by cuts in:
  - EU-wide strategic investments (incl. solvency support): by € 51 bn (to € 6 bn)
  - Climate action (Just Transition Fund): by € 20 bn (to € 10 bn)
  - External action (neighborh., developm., humanit. aid): by € 15 bn (to zero)

→ For 'External action': even decline compared to EU27 MFF 2014-2020, despite the rising gap in humanitarian funding in the midst of a global pandemic

... This funding gap is "grossly inadequate and that's dangerously shortsighted,"  
(Mark Lowcock, UN OCHA)

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**Comment 7: The 30% climate-spending target is highly welcome but at quite a risk to be missed**

**European Council cuts to the proposed EURI-NGEU expenditures increase the risk to miss the 30% climate spending target**

- The bottom-up sum of expected (minimum) contributions per programme is below 30%.

**Moreover, doubts over assumed contribution from agriculture expenditures**

- The late negotiation results for CAP 2023-27 may be considered insufficiently ambitious, so that the resulting national CAP plans may not fully deliver on climate targets.
- The European Court of Auditors questions the contribution associated with certain direct payments.

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**Comment 8: Progress on the revenue side is still incomplete and further negotiations must follow soon**

**New Own Resources (OR) in 2021-2027:**

- 2021: MS national contribution based on non-recycled plastic packaging waste quantity (yet lump-sum reductions for MS with below-average per-capita income)
- 2023: Agreed plan to introduce:
  - Carbon border adjustment mechanism (CBAM),
  - Digital levy
  - Emissions-Trading-System (ETS)-based contribution (e.g. maritime, aviation)
- 2026: Agreed plan to introduce 'additional new OR', 'which could include':
  - Financial Transaction Tax (FTT)
  - Contribution linked to the corporate sector

**But: Implementing this roadmap must still be negotiated!**

→ **Question** whether 'additional new OR' could include taxes to address the sizeable inequalities that are rising further due to COVID-19, like e.g. net wealth taxes.

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**Comment 9: The European Council increased 'rebates' as privileges of a few member states**

**Modifications to the current Own Resources (OR) for 2021-2027:**

- Customs duties (TOR) minus 'collection costs'
- National VAT-based contributions
- National GNI-based contributions
  - But privileged status of 5 out of 9 'net paying' MS (AT, DE, DK, NL, SE):  
Enjoying gross reductions in their annual contribution!  
... This is not the case for FI, FR, IE, IT!
  - For 4 out of these 5 privileged MS (AT, DK, NL, SE, but not DE):  
European Council even increased these 'rebates' (to up to 0.25% GNI) for 2021-27  
while European Parliament and Commission had demanded a phase-out.

**→ Need for reform: EP consent to OR decision shall be required!**

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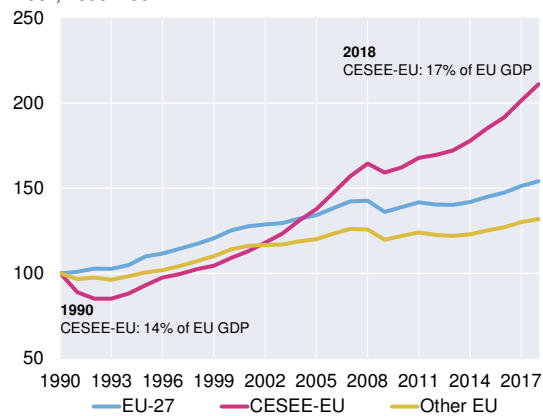
## EU Convergence from the Perspective of Climate Economics

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### Transition was a win-win process: CESEE's economic transition was decisive to lower its GHG emissions

#### GDP per capita at PPP

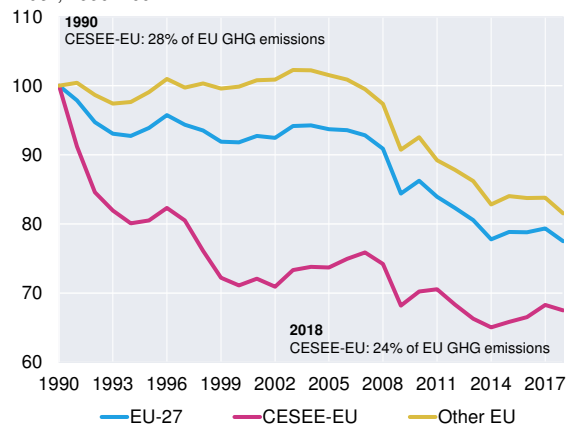
Index, 1990=100



Source: Euostat, wiw, OeNB

#### Total GHG emissions without LULUCF

Index, 1990=100



Source: UNFCCC.

Note: LULUCF= Land Use, Land-Use Change and Forestry

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## Kaya identity – used for decomposition analysis

Kaya, Yoichi; Yokoburi, Keiichi (1997). *Environment, energy, and economy : Strategies for sustainability*. Tokyo. United Nations University Press.

**Total GHG emissions = Emission intensity \* Energy intensity \* GDP per capita \* Population**

With:

GDP: Gross domestic product at constant prices and purchasing power parities

**Emission intensity:** GHG emissions / Final energy used

**Energy intensity:** Final energy used / GDP

“Carbon intensity” = Emission intensity \* Energy intensity

**Carbon intensity:** GHG emissions / GDP

“GHG emissions per capita” = Carbon intensity \* GDP per capita

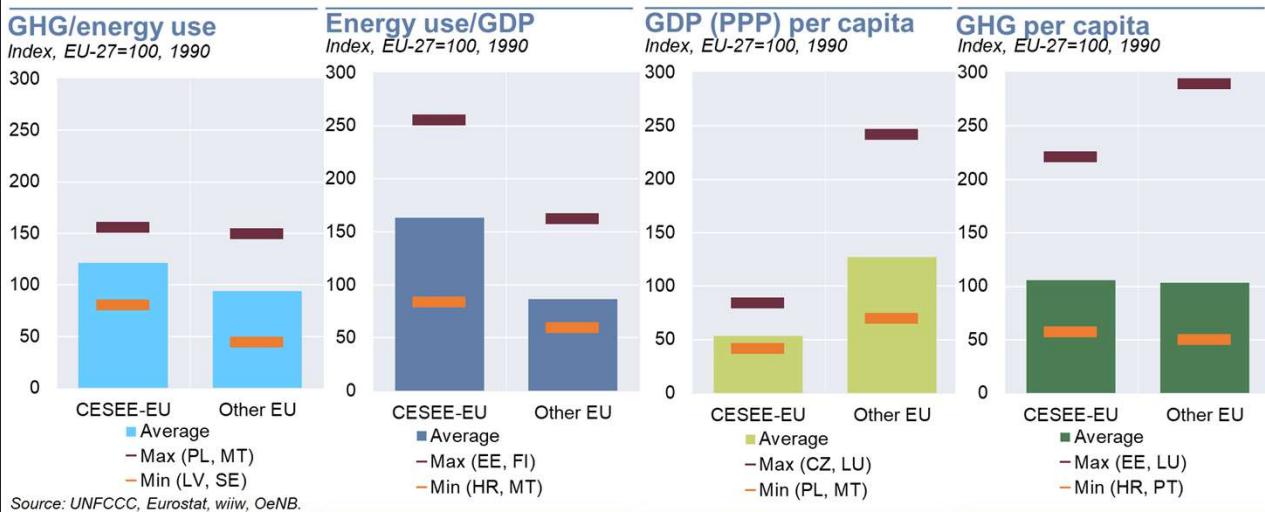
**GHG emissions per capita:** GHG emissions / Population

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## 1990: Decomposition of GHG emissions per capita:

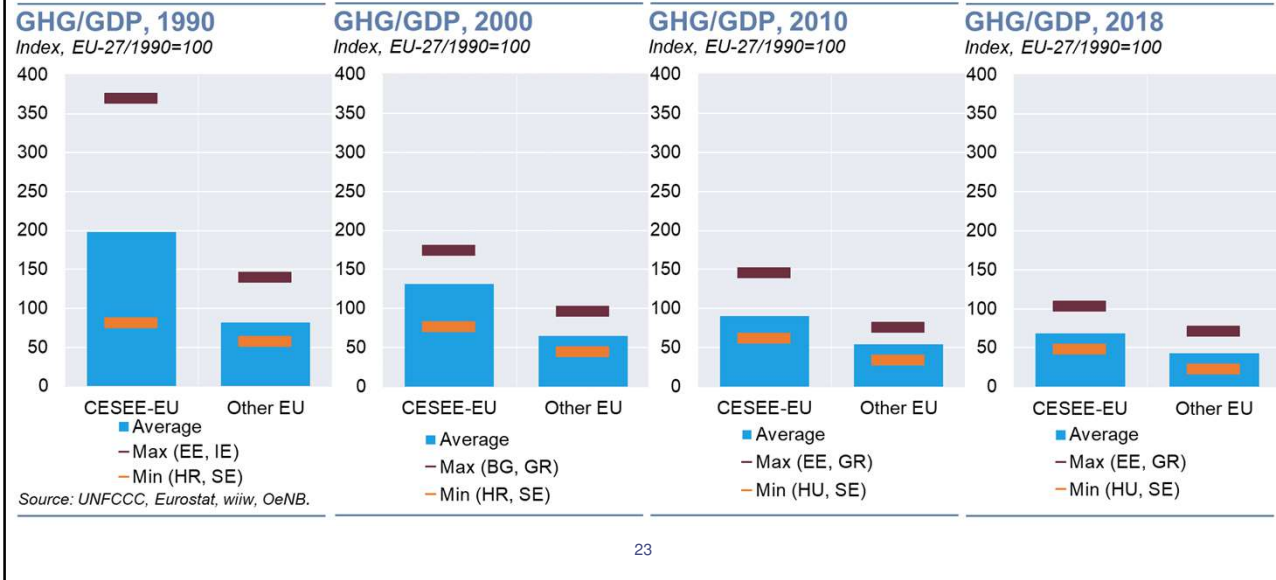
An unfavorable starting position – high emission intensity and high energy intensity



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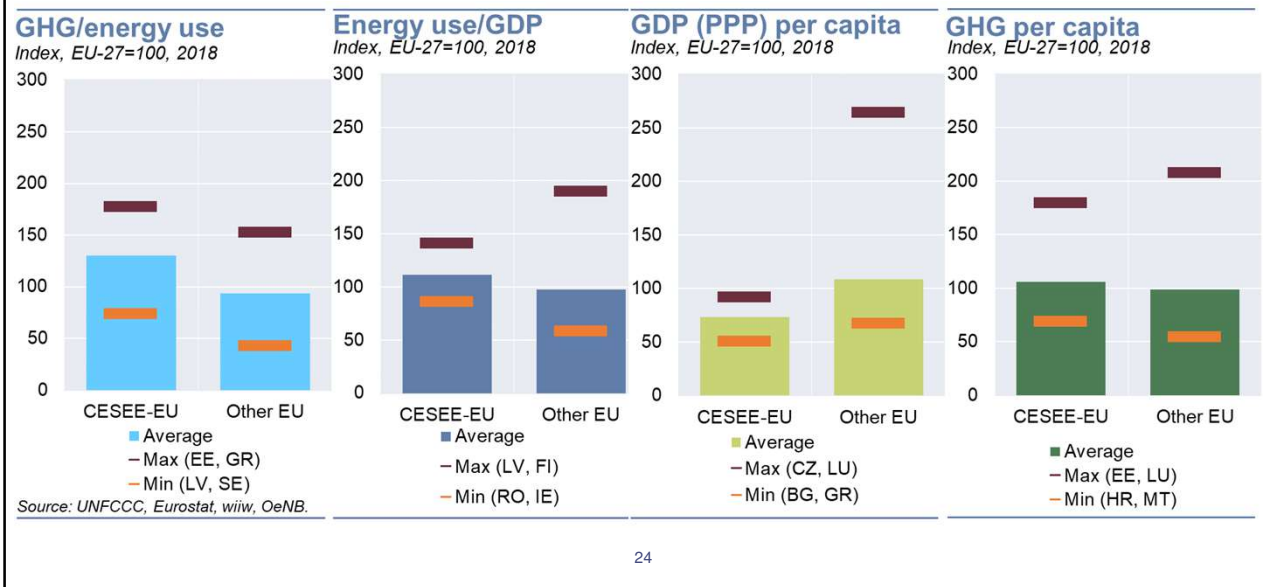
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**1990-2018: Another convergence to a moving target (relative to 1990 level):  
The convergence of GDP's carbon intensity! – But not completed yet ...**



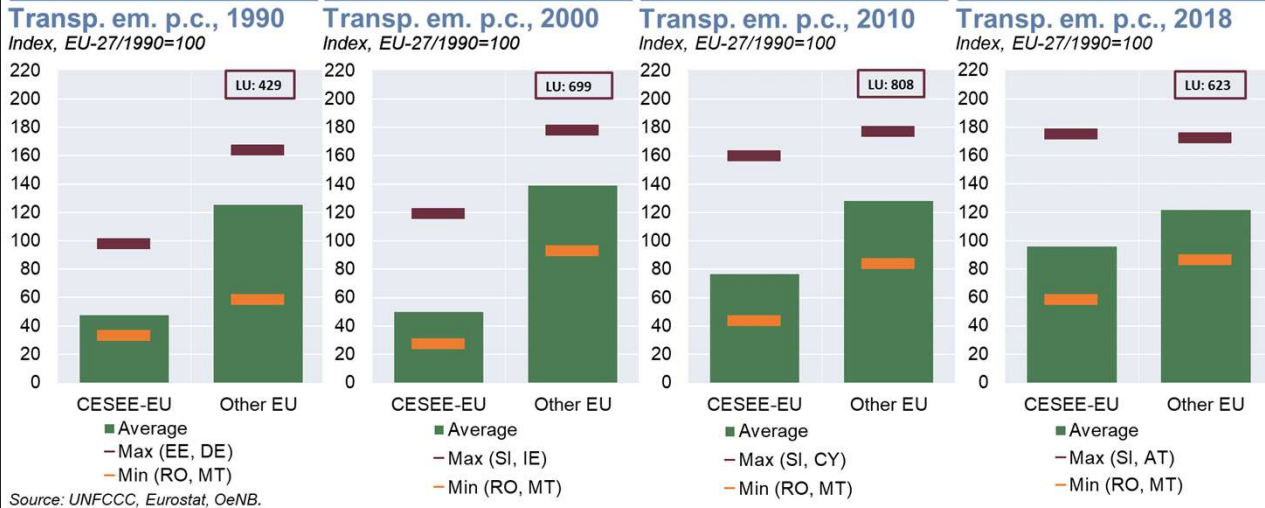
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**2018: Still scope for improvement: CESEE's higher carbon intensity of GDP leads to slightly higher per-capita emissions despite lower per-capita income**



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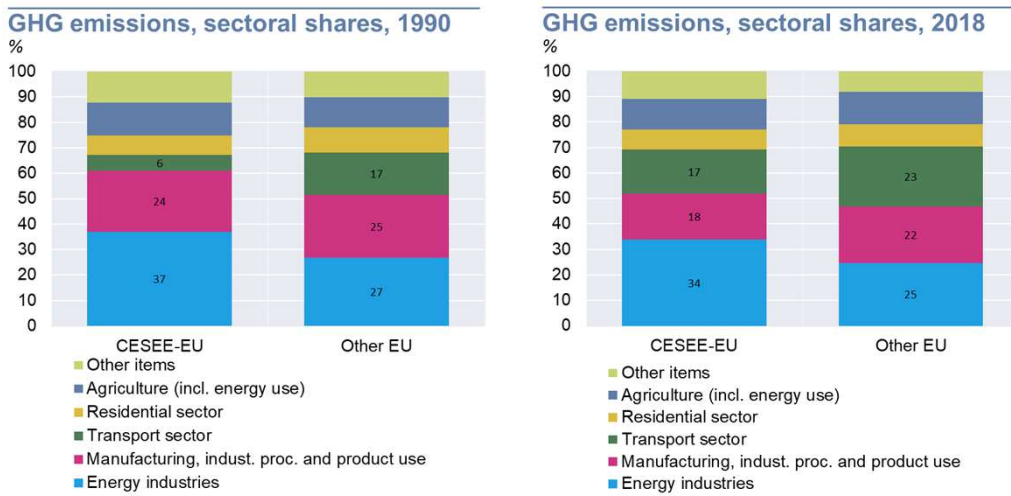
**CESEE's transport sector emissions per capita:  
1990-2018: Strong rise since 2000, reaching the EU27/1990-level in 2018**



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**Transport emissions' share in total emissions has risen in both sub-regions,  
but particularly strongly in CESEE – yet share still lower than in other EU MS**

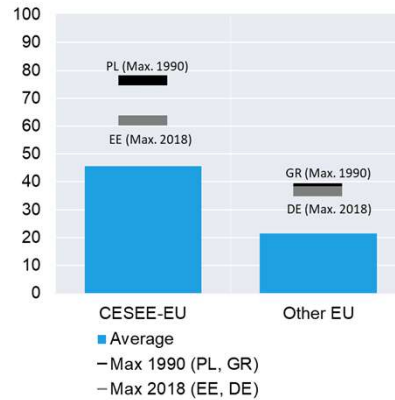


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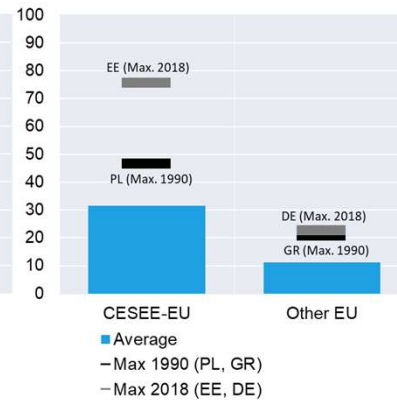
## The share of coal in total energy supply has declined since 1990, both in CESEE EU and in other EU, with still higher share of coal in CESEE

Share of coal in total energy supply % , 1990



Source: IEA, OeNB.

Share of coal in total energy supply % , 2018



Source: IEA, OeNB.

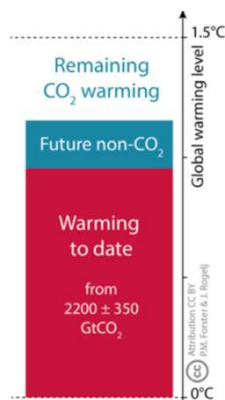
- Decline in CESEE EU **exacerbated by decline in total energy supply by 18%** (vs. 5% increase in other EU).
- Allocation of EU27's coal use:**
  - CESEE EU 41%
  - DE 32%, PL 23%, CZ 7%
- New coal plants in EU27 2018-2020:**
  - Only in DE, PL and CZ
  - Only in PL new capacities exceed retired old capacities
- Coal mines operate in DE, GR and in PL, CZ, RO, BG, HU;**
  - With **new coal mine projects** proposed in PL, CZ, RO.
- Total energy supply's import share:**
  - CESEE EU: 42%
  - Other EU: 60%

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## Carbon budget: Concept and remaining budget

- Concept: Amount of accumulated CO<sub>2</sub> emissions that can be brought into the atmosphere and still remain at a specified likelihood within a given limit of temperature increase (given forcings of other GHGs)
- The remaining carbon budget within 1.5°C rise is very tight:



- 580 GtCO<sub>2</sub> left (50% chance of 1.5°C)
- 420 GtCO<sub>2</sub> left (66% chance of 1.5°C)
- + 250 GtCO<sub>2</sub> depends on what is done on non-CO<sub>2</sub>
- + 400 GtCO<sub>2</sub> geophysical uncertainty
- Currently, 42 ± 3 GtCO<sub>2</sub>/yr annually
- 200 GtCO<sub>2</sub> budget differences are about 5 year of current emissions and imply roughly a 10 year variation in the mid-century timing of reaching net zero CO<sub>2</sub> emissions.

Source: J. Rogelj – ipcc SR1.5, in: K.Riahi (2020).

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## European Union Climate Policy Targets for 2020

- **Overall target:** EU and its member states (MS) committed to **reducing their GHG emissions by 20% by 2020 compared to 1990 levels** (with a view to cutting emissions by 60% to 80% by 2050 compared to 1990).
- Following initial political declarations in 2007, this became a unilateral commitment in 2009, and a multilateral commitment under the Doha amendment of the Kyoto Protocol in 2012
- To fulfill this commitment **by 2020**, the EU chose a three-pronged approach comprising:
  - (1) direct **sub-targets for sectoral changes of GHG emissions compared to 2005 levels:**
    - (a) Current **ETS sectors** (ETS=Emissions Trading System, covering about 90% of energy industries and 70% of manufacturing): **-21%**, and
    - (b) **Other sectors:**  
Specific minimum reductions or maximum increases **for individual MS ranging from -20% to +20%**
  - (2) targets for the **minimum share of energy from renewable sources** (hydro, wind, solar, biomass) in total final energy consumption (FEC): **20% for the EU-28, plus binding MS-specific targets**
  - (3) targets for the **reduction of FEC (and PEC) to advance energy efficiency:**  
**Decrease EU-28 FEC by 9% compared to 2005**, plus indicative MS-specific targets

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## EU GHG emissions: Targeted changes versus actual changes, in % (up to 2020) (1)

	CESEE EU			Other EU MS			EU-27		
	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors
<b>Actual:</b>									
1990 to 2005	-26	-27	-25	2	5	-1	-6	-6	-7
<b>2020 Target agreed in 2007-2009: Reduction of EU-28 emissions by 20% versus 1990:</b>									
Thus, agreed sub-targets for sectoral changes versus 2005, which imply the following targeted changes:									
<b>2005 to 2020</b>	-4	-21	14	-17	-21	-13	-14	-21	-8
1990 to 2020	-30	-42	-15	-15	-17	-14	-19	-26	-14
<b>Actual:</b>									
<b>2005 to 2018</b>	-8	-21	5	-20	-28	-13	-17	-26	-10
1990 to 2018	-33	-42	-22	-18	-25	-14	-23	-30	-16

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## EU GHG emissions: Targeted changes versus actual changes, in % (up to 2020) (2)

	CESEE EU			Other EU MS			EU-27			AT		
	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors
<b>Actual:</b>												
1990 to 2005	-26	-27	-25	2	5	-1	-6	-6	-7	18	8	25
<b>2020 Target agreed in 2007-2009: Reduction of EU-28 emissions by 20% versus 1990:</b>												
Thus, agreed sub-targets for sectoral changes versus 2005, which imply the following targeted changes:												
2005 to 2020	-4	-21	14	-17	-21	-13	-14	-21	-8	-18	-21	-16
1990 to 2020	-30	-42	-15	-15	-17	-14	-19	-26	-14	-3	-15	5
<b>Actual:</b>												
2005 to 2018	-8	-21	5	-20	-28	-13	-17	-26	-10	-15	-21	-10
1990 to 2018	-33	-42	-22	-18	-25	-14	-23	-30	-16	1	-15	12

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## European Union Climate Policy Targets for 2030 (new – Green Deal, 2021)

- **Overall target:** In 2021, EU and its member states (MS) committed to **reducing their GHG net emissions by 55% by 2030 compared to 1990 levels** and to achieve net-zero emissions NZE by 2050 compared to 1990.
- To fulfill this commitment by 2030, the **EU Commission proposed** under the three-pronged approach:
  - (1) direct **sub-targets for sectoral changes of GHG emissions compared to 2005 levels:**
    - (a) Current **ETS sectors: -61%**, and
    - (b) **Other sectors:**  
Specific minimum reductions or maximum increases for individual MS ranging from **-50% to -10%**
  - (2) targets for the **minimum share of energy from renewable sources** (hydro, wind, solar, biomass) in total final energy consumption (FEC): **40% for the EU-27, plus binding MS-specific targets**
  - (3) targets for the **reduction of FEC (and PEC) to advance energy efficiency:**  
**Decrease EU-27 FEC by 20% compared to 2019**, plus indicative MS-specific targets

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## EU GHG emissions: Targeted changes versus actual changes, in % (up to 2030) (1)

	CESEE EU			Other EU MS			EU-27		
	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors
<b>Actual:</b>									
1990 to 2005	-26	-27	-25	2	5	-1	-6	-6	-7
2005 to 2018	-8	-21	5	-20	-28	-13	-17	-26	-10

### 2030 Target agreed in 2014-2018: Reduction of EU-28 emissions by 40% versus 1990:

Thus, **agreed sub-targets** for sectoral changes versus 2005, which imply the following targeted changes:

2005 to 2030	-26	-43	-7	-38	-43	-34	-35	-43	-29
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### 2030 Target agreed in 2021: Reduction of EU-27 net emissions by 55% versus 1990:

Thus, **proposed sub-targets** for sectoral changes versus 2005, which imply the following targeted changes:

2005 to 2030	-41	-61	-18	-52	-61	-45	-49	-61	-40
2018 to 2030	-35	-51	-22	-40	-46	-37	-39	-47	-33

Note: For implied targeted changes, uniform ETS application across member states is assumed for simplicity.

Source: European Commission. European Union. <https://eur-lex.europa.eu>. UNFCCC.

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## EU GHG emissions: Targeted changes versus actual changes, in % (up to 2030) (2)

	CESEE EU			Other EU MS			EU-27			AT		
	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors	Total	ETS Sectors	Other Sectors
<b>Actual:</b>												
1990 to 2005	-26	-27	-25	2	5	-1	-6	-6	-7	18	8	25
2005 to 2018	-8	-21	5	-20	-28	-13	-17	-26	-10	-15	-21	-10

### 2030 Target agreed in 2014-2018: Reduction of EU-28 emissions by 40% versus 1990:

Thus, **agreed sub-targets** for sectoral changes versus 2005, which imply the following targeted changes:

2005 to 2030	-26	-43	-7	-38	-43	-34	-35	-43	-29	-39	-43	-36
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### 2030 Target agreed in 2021: Reduction of EU-27 net emissions by 55% versus 1990:

Thus, **proposed sub-targets** for sectoral changes versus 2005, which imply the following targeted changes:

2005 to 2030	-41	-61	-18	-52	-61	-45	-49	-61	-40	-53	-61	-48
2018 to 2030	-35	-51	-22	-40	-46	-37	-39	-47	-33	-45	-51	-42

Note: For implied targeted changes, uniform ETS application across member states is assumed for simplicity.

Source: European Commission. European Union. <https://eur-lex.europa.eu>. UNFCCC.

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## EU MS: Effective (explicit and implicit) carbon prices in the transport sector 2018

in EUR per tonne of CO<sub>2</sub>

	Calculated at exchange rate			Calculated at PPP			
	Weighted average	o/w: Diesel	o/w: Gasoline	Weighted average	o/w: Diesel	o/w: Gasoline	
NL	251	187	348	GR	277	185	372
IT	243	232	322	IT	242	231	321
FI	236	199	311	NL	219	163	304
GR	230	154	310	PT	217	199	346
FR	227	212	306	FR	204	191	274
BE	220	207	272	DE	199	163	267
DE	216	177	290	BE	195	183	241
SE	205	166	278	FI	188	159	248
IE	201	180	260	IE	173	154	223
DK	198	159	274	ES	168	153	239
PT	183	168	292	SE	161	130	218
AT	165	149	213	DK	148	119	204
ES	157	142	223	AT	146	132	189
LU	138	126	205	LU	110	101	164
Mean-14	215	188	290	Mean-14	201	176	272
EE	205	185	249	EE	257	233	313
SI	185	169	242	CZ	237	225	312
SK	177	148	245	SK	230	193	319
CZ	168	160	222	HU	227	206	264
LV	150	140	210	SI	221	202	289
HU	146	133	170	PL	219	213	287
PL	132	129	174	LV	207	193	290
LT	131	130	192	LT	199	198	291
Mean-8	149	141	195	Mean-8	223	212	292

Note: Tax rates of 1 July 2018. Excl. biofuels. Mean as emission-weighted average.  
Source: OECD (2019, 2021), authors' calculations.

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### Conclusions (1)

- **SEE** economies **more vulnerable** to physical climate change than **CEE**
- **During first decade of (first) transition** CESEE performed **strong GHG emission reductions**
  - mainly on the back of lower energy intensity, due to shift to services and new technology
  - despite GDP growth (and unsustainable rise in transport sector emissions)
- **Thereafter, reductions** have been substantially **lower than before**
  - and lower than in **other EU** member states, reflecting partly less ambitious targets
- Thus, CESEE EU MS are still **to some degree laggards**
- Both CESEE and other EU MS **must step up their efforts** in the coming years
- For CESEE, this would also offer huge **opportunities** for their economic **catching up**
- Good reasons to **appreciate renewables**: low costs, energy independence, etc.
  - (New **nuclear** energy plants are **not** even a bridging technology)
- **Modernize** the infrastructure to raise **energy efficiency**

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## Conclusions (2)

### More general lessons

- Addressing climate change does not always mean to sacrifice economic growth
  - and it may often imply to enhance well-being immediately (e.g. by cutting air pollution)
- Setting targets is crucial
  - and it's decisive that these targets are ambitious
- The EU on aggregate achieved its emission reduction targets for 2020
  - during a period in which the costs of renewables were far higher than now

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## Energy supply: Dependence of and on Russia

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### Energy Supply: Dependence of and on Russia

#### Russian exports and imports in 2021, by goods and countries

	Total (vis-a-vis world):				Thereof:					
	EUR bn	% of GDP	% of total exports	% share	EU27		Other G7+Korea		China	
	EUR bn	% of GDP	% of total exports	% share	EUR bn	% share	EUR bn	% share	EUR bn	% share
<b>Goods exports</b>	<b>419</b>	<b>28</b>	<b>100</b>							
Goods imports	257	17								
Trade balance	162	11								
Memo: Nominal GDP	1507	100								
<b>Thereof: Energy exports:</b>										
Total	<b>205</b>	<b>14</b>	<b>49</b>	<b>100</b>	<b>103</b>	<b>50</b>	<b>26</b>	<b>13</b>	<b>37</b>	<b>18</b>
Coal (incl. Lignite)	16	1	4	100	4	22	4	24	3	18
Crude oil	91	6	22	100	44	49	10	11	29	31
Oil products	57	4	14	100	29	50	10	18	3	5
Natural gas	32	2	8	100	23	70	1	3	1	2
LNG	8	1	2	100	4	49	1	11	3	31

Source: Rosstat, Russian Customs Authority, authors' calculations.

Note: Shares proxied by using 2020 volume shares, and counterparts' share of crude oil for counterparts' share of LNG.

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