

# THE NEW EU FRAMEWORK FOR CLIMATE AND ENERGY POLICIES

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# COP 20 Lima

- COP 20: Broad consensus to adopt national commitments to reduce greenhouse gas emissions (GHGs).
- crucial role of COP 21 in Paris to reach a final agreement on (1) ambitious Individually Nationally Determined Contributions (INDCs) (2) on an effective verification system to compare these mitigation efforts. **Real outstanding issues:**
- How to agree on the resources that must be devoted to achieve mitigation targets,
- distribution of burden across different world regions,
- mechanisms to fund the huge investments that will be necessary for both mitigation and adaptation.

# Green Climate Fund

- Goal of USD 100 billion by 2020
- 50 % for adaptation
- Reached first milestone of USD 10 billion by 2014
- Still far way to go and probably not enough to deal with adaptation, technology transfer and accelerating transition to low carbon economy while guaranteeing progress in standard of living

# EU Energy and Climate Policy

- Mainly developed between 2005 and 2007 before world financial and Euro crisis
- In preparation for UN climate negotiations in Copenhagen in 2009
- EU climate and energy package of 2007
  - 20-20-20 Package
  - 2030 Framework
  - 2050 Roadmap

# 20-20-20

- A 20% reduction in EU greenhouse gas emissions from 1990 levels by 2020 or 30 % reduction conditional on non-EU countries' cooperation
  - 20 % reduction already in reach
  - Unlikely to be tightened to 30 %
  - Low carbon price signal from the EU ETS

# Renewable Energies

- Raising the share of EU energy consumption produced from renewable resources to 20%
  - National targets but no implementation mechanism
  - Relies to a large extent on controversial biofuel production (potential negative impacts on land-use changes, water consumption), wood pellets from North America and national subsidies
  - Many renewable energy subsidy programmes are significantly cut back or phased out
  - Only Germany, Sweden and Denmark were on track

# Energy Efficiency

- A 20% improvement in the EU's energy efficiency.
- Based on projected not actual consumption rates in 2007
  - No legally binding goals or sector-specific targets
  - Not clear how EU directives would lead to national regulation and if targets would be met
  - Economic downturn did not help as much as with carbon emissions

# Roadmap to 2050

- By 2050, the EU should cut its emissions to 80% below 1990 levels through domestic reductions alone - reductions of the order of 40% by 2030 and 60% by 2040.
- It also shows how the main sectors responsible for Europe's emissions can make the transition to a low-carbon economy most cost-effectively.



# The New EU Framework

1. New GHG emission reduction targets
2. Reviving the Emission Trading System (ETS)
3. Ensure Competitiveness of EU and prevent carbon leakage
4. New targets on renewables and energy efficiency at EU not national level
5. Energy integration: building the Energy Union
6. Energy Security

# The New EU Framework

7. Equity and balanced approach within the EU
8. New commitment to clean energy investments

# 1. New GHG emission reduction target

- Agreed on a binding EU target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990.
- The target will be delivered collectively by the EU in the most cost-effective manner possible, with the reductions in the ETS and non-ETS sectors amounting to 43% and 30% by 2030 compared to 2005 respectively;
- The EU will submit its contribution, at the latest by the first quarter of 2015, in line with the timeline agreed by the UNFCCC in Warsaw for the conclusion of a global climate agreement

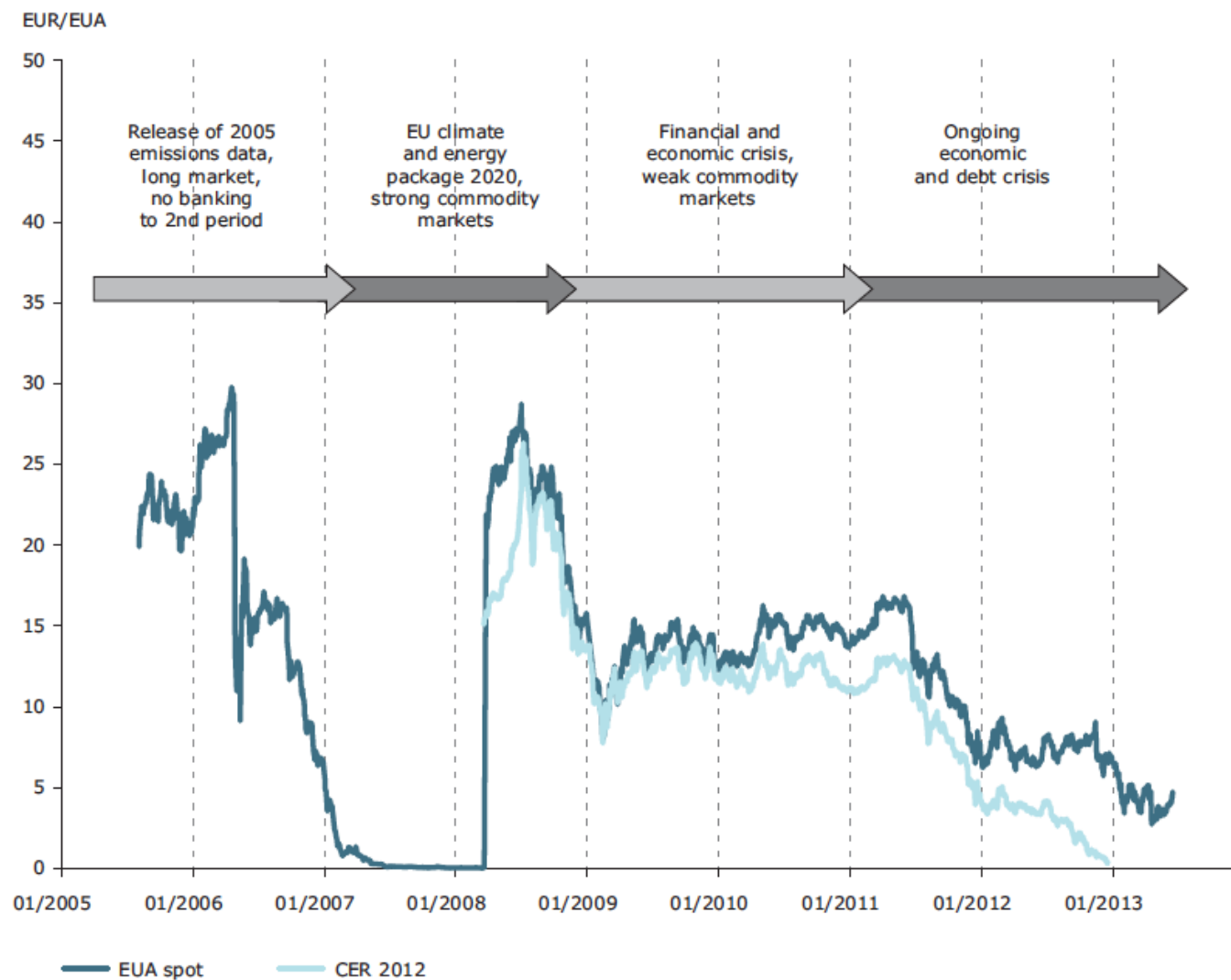
# EU Emissions Trading System (ETS)

- ETS sector: covers about 12.000 installations and 41% of the EU's CO<sub>2</sub> emissions. The ETS sector includes the power and heat generation sector, combustion plants, oil refineries, coke ovens, iron and steel plants and factories making a.o. cement, glass, lime, bricks, ceramics.
- Non-ETS sector: Transport, lighter industry, buildings and agriculture responsible for 58% of emissions

## 2. Reviving the Emission Trading System (ETS)

- Carbon price too low, not enough of an investment signal for cleaner and alternative technologies
- Emissions cap tightens by 1.74 % per year until 2021 and then by 2.2.% per year as of 2021
- Introduction of a **market stability reserve** (MSR) in 2021: acts like a safety valve to ensure a more stable and predictable carbon price (prices closer to € 20)
  - Removes permits to a reserve fund if too many permits are in circulation
  - Adds permits from reserve (up to 100 million) if fewer than 400 million permits in the market
- Germany and UK advocate earlier introduction in 2017

**Figure 2.14 Price trends for EUAs and CERs, 2005–2012**



**Source:** EEX, 2013; EEA, 2013b; ICE, 2013; calculations by Öko-Institut.

<sup>(18)</sup> See Schumacher et al., 2012, for a discussion of the different drivers behind EUA prices.

### 3. Competitiveness and carbon leakage

- Free allocation in ETS will not expire and continue after 2020 to prevent the risk of **carbon leakage**, as long as no comparable efforts are undertaken in other major economies
- member states with a GDP per capita that is 60% lower than the EU average are allowed to continue to give pollution permits free of charge to the energy sector up to 2030. maximum number of permits that can be freely allocated after 2020 cannot exceed 40% of the allowances allocated to each member state.
- Free allocation could be giving industry the equivalent of a €120-300 billion subsidy from 2021-2030
- The benchmarks for free allocations will be periodically reviewed in line with technological progress in the respective industry sectors.

## 4. Renewables and Energy Efficiency

- An EU target of at least 27% is set for the share of renewable energy of final energy consumption in the EU in 2030 (binding at EU level)
- Very vague with lots of flexibility in execution
  - fulfilled through Member States contributions
  - guided by the need to deliver collectively the EU target
  - without preventing Member States from setting their own more ambitious national targets and supporting them,
  - taking into account their degree of integration in the internal energy market
- Some critics think the 27 % will continue to undermine the ETS mechanism and will deflate the carbon price contrary to EU view that it is compatible (Carlo Carraro (ICCG))



# Energy Efficiency

- An indicative target at the EU level of at least 27% is set for improving energy efficiency in 2030 compared to projections of future energy consumption based on the current criteria
- reviewed by 2020, having in mind an EU level of 30%
- Priority sectors will be identified
- Member States' freedom to determine their own energy mix → consistent with energy integration?

# 5. Energy Integration

- Ramping up of energy connectivity between member states.
- a minimum target of ten percent of existing electricity interconnections.
- target of 15 percent by 2030.
- Requires investment in new pipeline and grid infrastructure across EU borders.
- No later than 2020 connect Member states that have not yet attained minimum levels: Baltic States, Spain and Portugal
- Contentious issue as Portugal is advocating for 30% but France sees threat to its nuclear industry

# 6. Energy Security

- Reduce the EU's energy dependence and increase its energy security for both electricity and natural gas
- a new gas hub in Southern Europe
- key infrastructure projects enhancing Finland's and the Baltic States' energy security
- better use of regasification and storage capacity in the gas system

# 7. Equity and Redistribution

- Establishment of a reserve of 2% of the EU ETS allowances that are to be set aside to meet the high additional investment needs of low income EU member states (GDP per capita is below 60% of the EU average)
- These allowances will be used to improve energy efficiency and modern energy systems in these member states.
- 10% of the EU ETS allowances that can be auctioned by member states will be distributed among countries whose GDP per capita did not exceed 90% of the 2013 EU average
- Might help to advance energy integration (Carlo Carraro)

# Clean energy investments

- Low carbon innovation in industrial sectors
- Will now also include small scale projects
- Aims at carbon capture and storage
- Renewable energy innovation
- NER400 facility endowed with 400 million pollution permits (allowances): 'New Entrants Reserve' managed jointly by the European Commission, European Investment Bank and Member States

# Additional observations

- A possible revision of the EU's pledge after the climate summit in Paris, opening doors for the EU to increase its climate ambition and participate in the international carbon market (Carbon Market Watch)
- Flexibilities to help achieve Member States' targets for the non-ETS sectors, including offsetting non-ETS emissions with EU ETS allowances (Carbon Market Watch)
- Inclusion of land use, land use change and forestry (LULUCF) into the climate framework: sustainable intensification of food production
- Commitment to further examine instruments and measures for the transport sector

# Conclusion

- Compromises had to be made
- Some targets not eager enough but lots of flexibility
- Some commitments too vague
- Potentially contradicting objectives: energy integration, EU targets for renewables and energy efficiency but freedom to determine national energy mix
- Competitiveness necessary condition to continue climate and energy course
- Fossil fuel subsidies (distributional and competitiveness objectives) clash with carbon prices (investment and efficiency objectives)
- Still too much dependence on ETS sector, not effectively dealing with transport, agriculture and other major carbon contributors