

Trends in emissions & structural questions

28th April 2021
NERI Seminar Series

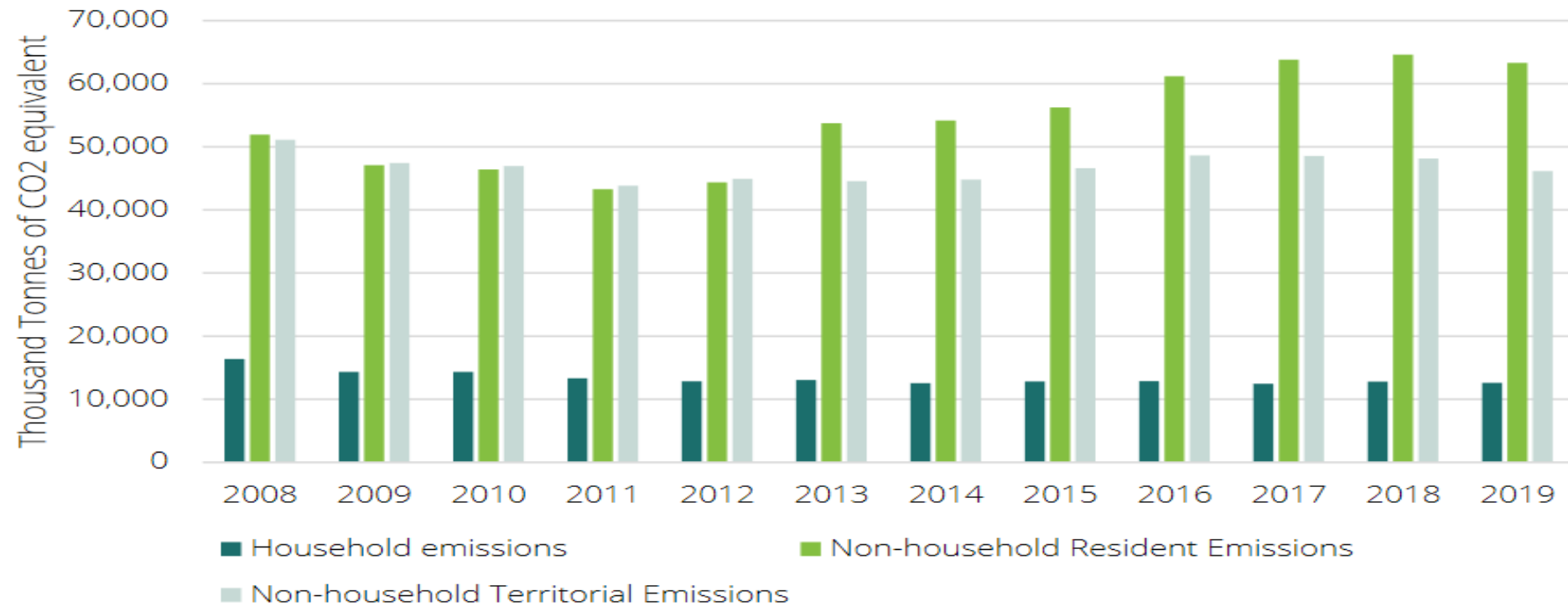
Paul Goldrick-Kelly **Twitter:** @PaulGK_NERI

WEBSITE: www.nerinstitute.net

Current research programme undertaken in collaboration with NUI Maynooth with funding from the Irish Research Council.

Evidence for transition to date?

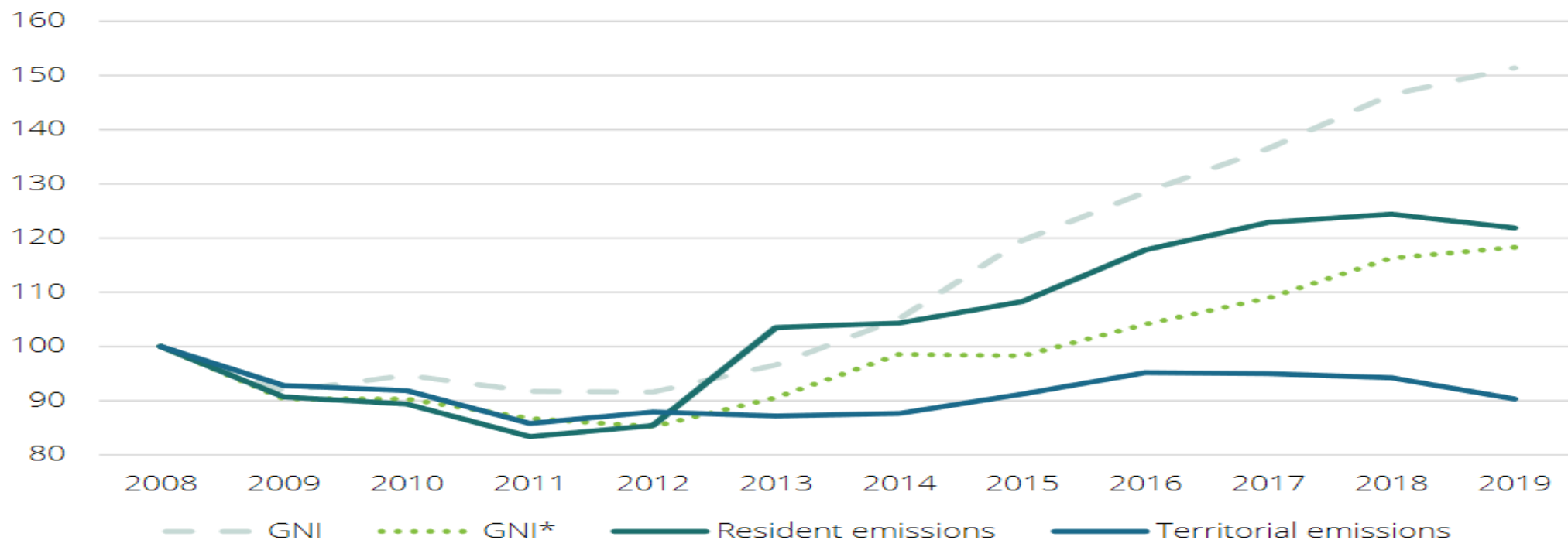
Figure 16: Emissions Trend in Ireland 2008-2019



Source: Air emissions accounts totals bridging to emission inventory totals (Eurostat, 2021), Air emissions accounts by NACE Rev. 2 activity (Eurostat, 2021)

Decoupling?

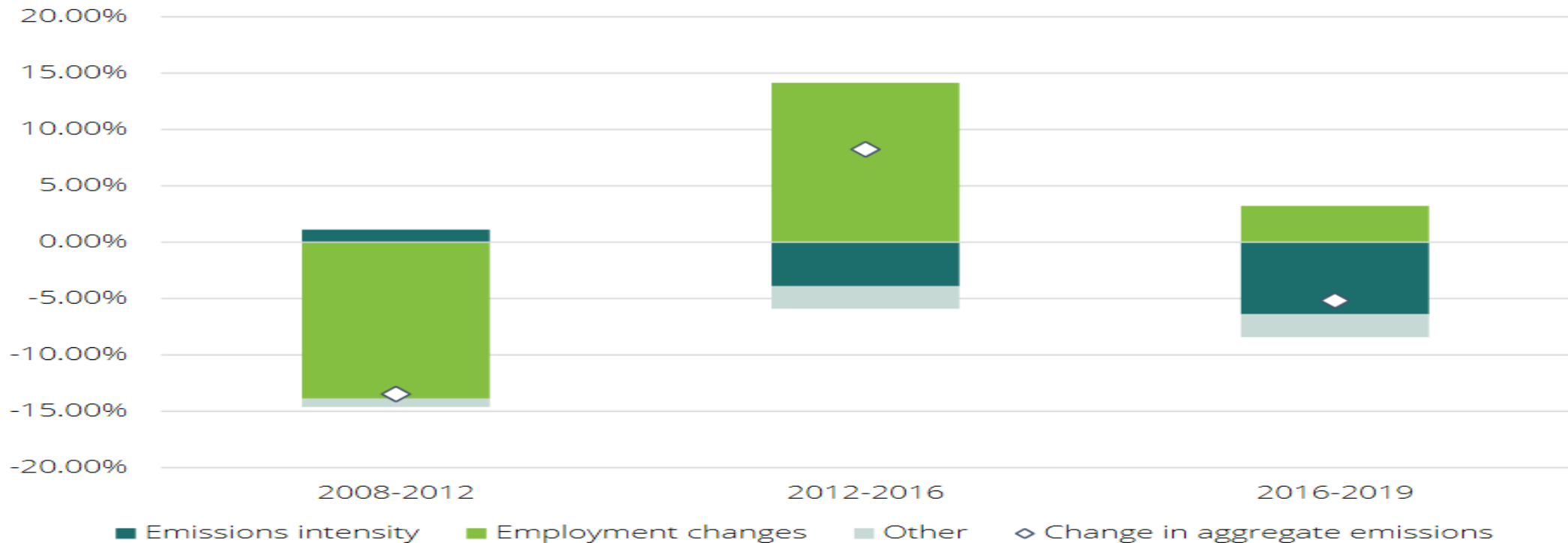
Figure 17: Gross National Income (chain linked 2018) and Emissions Trend



Source: Air emissions accounts totals bridging to emission inventory totals (Eurostat, 2021), Air emissions accounts by NACE Rev. 2 activity (Eurostat, 2021), National Income and Expenditure 1995-2019 (CSO, 2021)

Employment Decoupling?

Figure 19: Decomposing emissions changes by employment and emissions per job



Source: LFS Employment by sex, age and economic activity (from 2008 onwards, NACE Rev. 2) (Eurostat,2021); Air emissions accounts by NACE Rev. 2 activity (Eurostat,2021), Air emissions accounts totals bridging to emission inventory totals, author calculations.

Where are the emissions?

Table 3: Most Emissions Intensive sectors 2008 & 2019

Sector	Intensity per job 2008 (tonnes of CO ₂ equivalent)	Intensity per job 2019 (tonnes of CO ₂ equivalent)	Employment Change (thousands)	Emissions change (thousands tonnes of CO ₂ equivalent)
NACE D	1257.5	620.9	2.1	-6,080.5
NACE A	166.6	197.9	-13.2	1,018.3
NACE E	95.3	144.6	-1.1	510.9
NACE H	37.6	30.3	14.6	-224.5
NACE C	30.4	29.4	-10.8	-572.2
(NACE B	27.5	23.7	-4.8	-159.7
Non-intensive sectors	3.7	3.5	135.6	192.8
Total	23.6	19.9	123.5	-5,825.7

Source: LFS Employment by sex, age and economic activity (from 2008 onwards, NACE Rev. 2) (Eurostat,2021); Air emissions accounts by NACE Rev. 2 activity (Eurostat,2021), Air emissions accounts totals bridging to emission inventory totals, author calculations.

Questions of political economy

- The quintessential successful case of the Ruhr occurs in the context of Germany's "co-ordinated market economy" (CME) vs Republic of Ireland, UK "Liberal market economies" (LME).
- Cetkovic & Buzogány (2016):
 - CMEs characterised by incremental and continuous innovation patterns
 - Developed state – industry- science links through cooperation between firms, banks, research sector for longer termist perspectives
 - Emphasis on vocational training.
 - Comprehensive and stable support for renewable sector.
 - Former focus on decentralised development path.

Some aspects of the Irish case

- Low levels of public R&D spend. Deficits in education spend.
- Indicators such as patents per head in circular economy low.
- Relatively underdeveloped coordinating institutions in many areas – often piecemeal.
- Should Ireland imitate, build something more like a CME economy?