

## Regional disparities in GDP per capita in the EU after the financial crisis

### Summary

- The latest Eurostat data suggest the 'North-South' divide is more England-wide than UK-wide.
- Among all EU Member States, the UK has the **second highest** level of disparity in regional GDP per capita in 2010.
- Moreover, the data show that, in the UK, the financial crisis has resulted in a **widening** of the regional disparities. Although the UK is "in it together", some regions are "in it more than others".

This **London Economics' Noteworthy Statistics Briefing** compares the level of disparity in regional GDP per capita across the EU Member States using the latest Eurostat data. In addition, the analysis examines the extent of *convergence* or *divergence* in regional GDP per capita since the onset of the 2008 financial crisis.

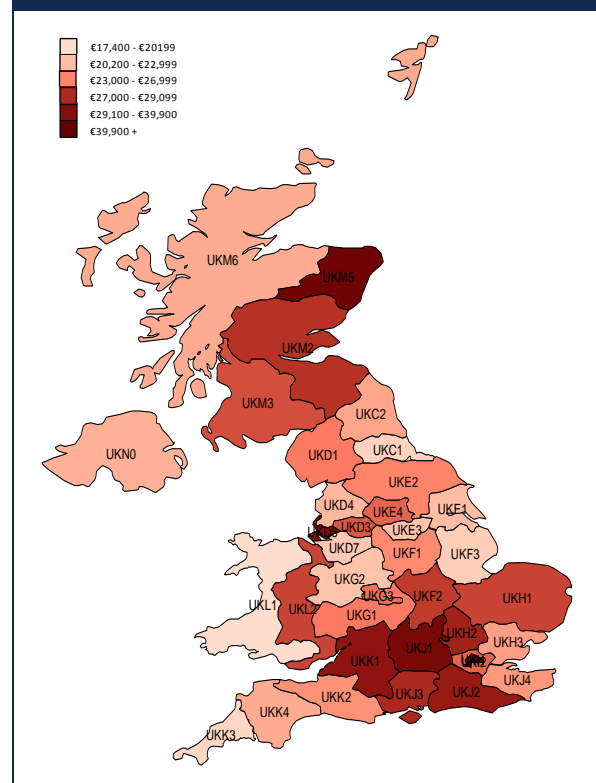
**Defining regions:** The analysis in the present note is based on Eurostat data at NUTS II and NUTS III level. In the UK, a NUTS I region corresponds to the former UK Government Office region (e.g. Yorkshire and the Humber) of which there were 12. Below this, there are 37 NUTS II regions (e.g. South Yorkshire) and 139 NUTS III regions (e.g. Sheffield).

**Constructing a comparable measure of dispersion of GDP per capita:** The comparison of the dispersion of regional GDP per capita across the EU Member States is based on the following methodology: first, for each Member State, the NUTS III regional GDP per capita figures are *normalised* relative to the country-level GDP per capita (€ per inhabitant). The *standard deviation* of the normalised regional GDP per capita figures is then used as the measure of dispersion. This standard deviation is shown in percentage points in the table overleaf.

### Evidence of the so-called UK 'North-South divide'

The NUTS II data suggest that the North-South divide tends to be more an English North-South divide than a UK-wide one (see Figure 1 where the deeper/darker colour reflect a higher level of GDP per capita.) as GDP per capita in southern Scotland (Strathclyde, Fife, and the Borders) and in and around Aberdeen is relatively high.

Figure 1: Regional GDP per capita in the UK in 2010



Note: See additional notes for regional code references.

Source: Eurostat

### How does the UK fare against the other EU Member States?

Table 1 (overleaf) shows that, at the NUTS III level, regional disparity of GDP per capita varies markedly across Member States. At one end of the spectrum, in Sweden, GDP per capita varies relatively little across regions with the dispersion measure equating to 13 percentage points. In contrast, the disparity in regional GDP per capita in the United Kingdom was **second highest** of all EU27 Member States in 2010 at 44 percentage points.

**Table 1: Dispersion in regional GDP per capita in 2010 – percentage points**

Country	Number of regions	Dispersion in regional GDP per capita in 2010
Slovakia	8	58.0
<b>United Kingdom</b>	<b>139</b>	<b>43.9</b>
Latvia	6	41.7
Poland	66	39.9
Estonia	5	38.4
Germany	412	37.9
Romania	42	36.6
Hungary	20	36.5
Czech Republic	14	36.1
Bulgaria	28	35.9
Ireland	8	33.5
France	100	31.7
Croatia	21	30.2
Lithuania	10	26.9
Belgium	44	26.0
Denmark	11	25.2
Portugal	30	24.5
Italy	110	24.2
Netherlands	40	22.7
Malta	2	22.3
Austria	35	21.9
Slovenia	12	20.8
Spain	59	18.1
Finland	19	16.4
Sweden	21	12.9

Note: Luxembourg and Cyprus are excluded since there is only 1 NUTS III region. Data for Greece are not available.

Source: Eurostat

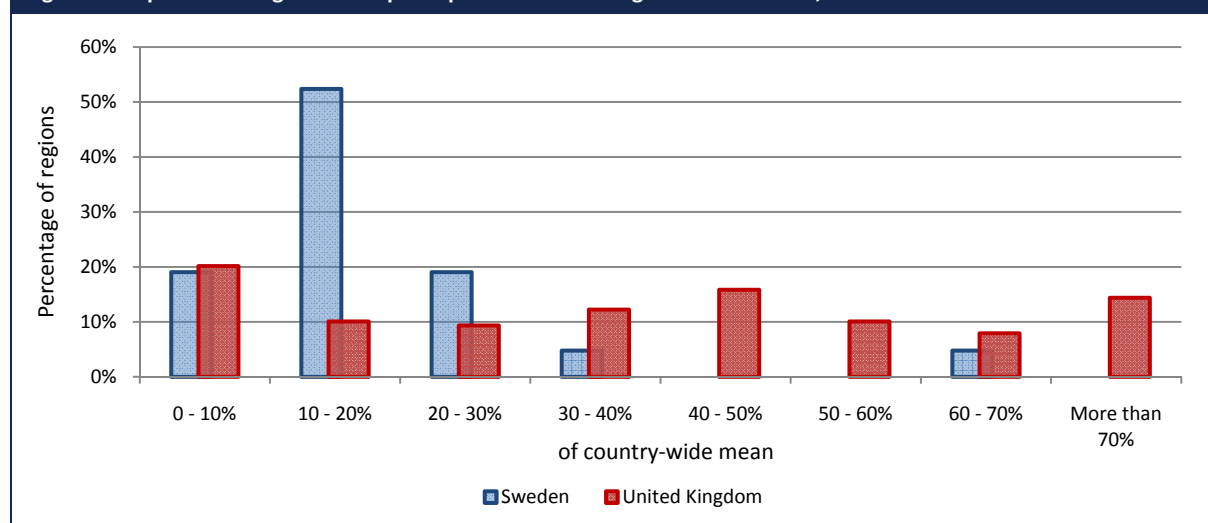
To put the difference between the Swedish and UK regional income disparity into perspective, Figure 2 below compares the percentage of regions in Sweden and the United Kingdom whose per-capita income lie within a certain range of the respective country-wide mean.

Despite a similar proportion of regions with a per-capita income within 0 and 10 percent of the country-wide per capita income, the difference between the two countries is striking in the case of regions with a per capita income within 10 to 20 percent of the country-wide mean.

Over 50 percent of regions in Sweden have a per capita income which is within 10 to 20% of the country-wide per capita income level whereas in the United Kingdom, this is the case for less than 10 percent of its regions.

The figure illustrates that, in general, 90.5% regions in Sweden have a per capita income level which lies within 0 to 30 percent of the country-wide level of GDP per capita.

In contrast, in the United Kingdom, there is no such concentration around the mean, as only 39.6% of regions have a per capita income level which lies within 0 to 30% of the country-wide income level and more than 30 percent of the UK regions have a per capita income level which exceeds or is less than 50 percent of the country-wide per capita income level.

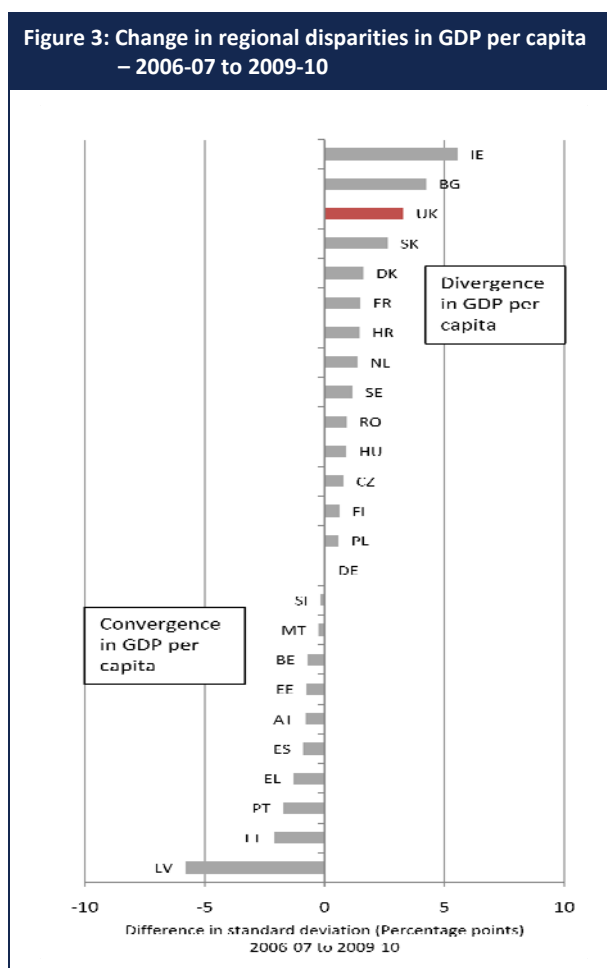
**Figure 2: Dispersion in regional GDP per capita for United Kingdom and Sweden, 2010**

Source: Eurostat

### What was the impact of the financial crisis on regional disparities?

The impact of the financial crisis and economic downturn on the dispersion of regional GDP per capita is shown in Figure 3 and Figure 4 (overleaf) which compare the dispersion of regional income per capita in over the periods 2006-07 and 2009-10.

The analysis shows that a total of fifteen Member States experienced an **increase** in the level of disparity in GDP per capita in the post crisis period. In four of these Member States (Ireland, Bulgaria, the United Kingdom and Slovakia), the regional dispersion in income per inhabitant widened by more than 2 percentage points.



Note: This analysis compares the average standard deviation of normalised regional GDP per capita over the periods 2006-2007 and 2009-2010. Data for Greece is unavailable for 2010. Luxembourg and Cyprus are excluded since there is only have 1 NUTS III region. Italy is excluded due to missing values in 107 of 110 regions over 2006-07. A total of 32 regions from Brandenburg, Dresden, Chemnitz, Leipzig and Koln in Germany were excluded from the analysis due to missing data for 2006-07. For the same reason, 4 regions in Zuid-Holland in the Netherlands were excluded. **Source: Eurostat**

Post-crisis, Latvia has shown the most prominent convergence in regional GDP per capita with a narrowing of almost 6 percentage points. However, despite such convergence, it remains amongst the most unequal Member States (Table 1). After Bulgaria and Ireland, **the United Kingdom recorded the highest increase in dispersion in the post-crisis period** (3.3 percentage points), which is indicative of an unequal impact of the crisis and/or different rates of recovery across its regions.

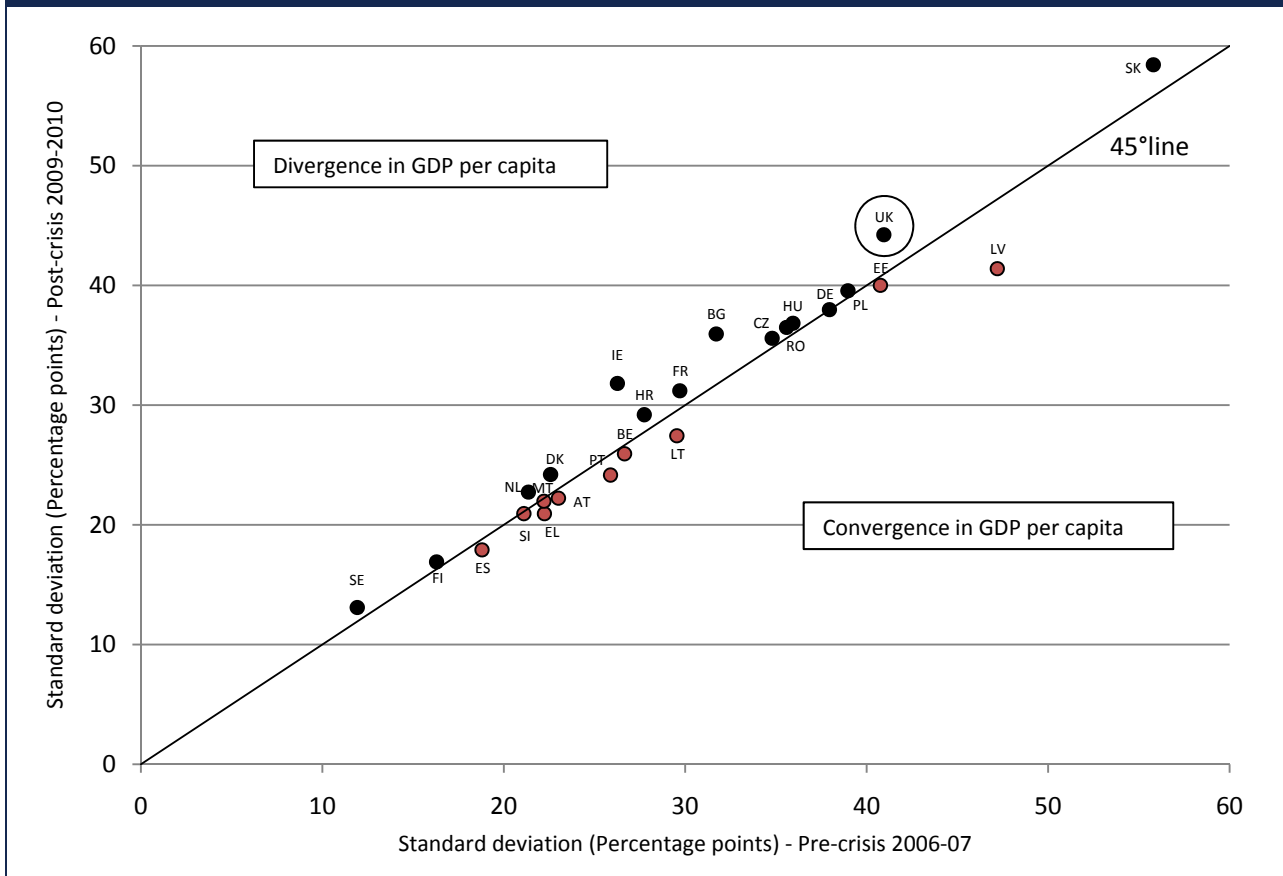
### Conclusions

The comparison of the level of regional disparity in GDP per capita suggests that 'North-South divide' is more an English one than a UK one.

Across the EU, the UK has the **second highest** level of dispersion of regional GDP per capita.

Moreover, in the United Kingdom, the financial crisis led to a **widening** of the disparity in regional GDP per capita and this widening was the third largest of all EU Member States– the financial and economic crises recession has had clearly a **differentiated impact** on regions and/or different regions have **recovered at different rates**.

While it is often claimed that the United Kingdom is "in it together", this analysis shows very clearly that some regions are "in it more than others".

**Figure 4: Change in regional disparities in GDP per capita – 2006-07 to 2009-10**


Note: See note for Figure 2.

Source: Eurostat

### Additional notes:

#### Member State abbreviations:

AT	Austria	IE	Ireland
BE	Belgium	IT	Italy
BG	Bulgaria	LT	Lithuania
CY	Cyprus	LU	Luxembourg
CZ	Czech Republic	LV	Latvia
DE	Germany	MT	Malta
DK	Denmark	NL	Netherlands
EE	Estonia	PL	Poland
EL	Greece	PT	Portugal
ES	Spain	RO	Romania
FI	Finland	SE	Sweden
FR	France	SI	Slovenia
HR	Croatia	SK	Slovakia
HU	Hungary	UK	United Kingdom

### Additional notes:

#### United Kingdom NUTS II Classification:

NUTSID	Region	NUTSID	Region
UKC1	Tees Valley and Durham	UKH3	Essex
UKC2	Northumberland and Tyne and Wear	UKI1	Inner London
UKD1	Cumbria	UKI2	Outer London
UKD3	Greater Manchester	UKJ1	Berkshire, Buckinghamshire and Oxfordshire
UKD4	Lancashire	UKJ2	Surrey, East and West Sussex
UKD6	Cheshire	UKJ3	Hampshire and Isle of Wight
UKD7	Merseyside	UKJ4	Kent
UKE1	East Yorkshire and Northern Lincolnshire	UKK1	Gloucestershire, Wiltshire and Bristol/Bath area
UKE2	North Yorkshire	UKK2	Dorset and Somerset
UKE3	South Yorkshire	UKK3	Cornwall and Isles of Scilly
UKE4	West Yorkshire	UKK4	Devon
UKF1	Derbyshire and Nottinghamshire	UKL1	West Wales and The Valleys
UKF2	Leicestershire, Rutland and Northamptonshire	UKL2	East Wales
UKF3	Lincolnshire	UKM2	Eastern Scotland
UKG1	Herefordshire, Worcestershire and Warwickshire	UKM3	South Western Scotland
UKG2	Shropshire and Staffordshire	UKM5	North Eastern Scotland
UKG3	West Midlands	UKM6	Highlands and Islands
UKH1	East Anglia	UKN0	Northern Ireland (UK)
UKH2	Bedfordshire and Hertfordshire		

#### Example of NUTS III Classification:

NUTS I Region	NUTS II Region	NUTS III Region
West Midlands, England	Herefordshire, Worcestershire and Warwickshire	Herefordshire
		Worcestershire CC
		Warwickshire CC
	Shropshire and Staffordshire	Telford and Wrekin
		Shropshire CC
		Stoke-on-Trent
		Staffordshire CC
	West Midlands	Birmingham
		Solihull
		Coventry
		Dudley
		Sandwell
		Walsall
		Wolverhampton