

An aerial photograph of a large cable-stayed bridge with white towers and cables, crossing a wide body of water. In the background, a red truss bridge is visible. The surrounding landscape includes green hills, a marina with many boats, and some residential buildings. The sky is clear and blue.

# International Economic Performance

## Analysis of OCED Rankings over Time

January 2022

# International economic performance – longer term analysis

## Summary

- This analysis considers the economic performance of OECD countries and Scotland over the latest 10-year period of available data across a range of indicators to assess the extent to which relative country performance (**in terms of rank and quartile**) changes over time.
- Across most economic indicators, and for most countries including Scotland, there is **very little change** in the economic performance quartile or rank over the last 10 years.
- For many countries where there are improvements or worsening in rank, this does not usually **result in changes in quartile**.
- Furthermore, once a country **reaches the top quartile for an indicator, it tends to remain there**.
- There are some countries that score consistently highly across the various economic indicators for which we have longer term data. **These tend to be the Scandinavian countries**.
- Similarly, there are countries that are consistently improving their ranking. These include a **number of Eastern European/ EU succession countries**, with the ‘opening up’ economically of these countries driving growth.
- The long-term trend analysis suggests that it **may take a long time for economic policy changes to convert to tangible improvements in relative economic performance**.
- Potential future research would be to explore how any why countries maintain top quartile economic performance, and any **lessons for Scotland**.

### Countries with Consistently Strong Rankings Across Multiple Indicators

Denmark		Norway
Sweden	Ireland	Belgium
Iceland		Germany

### Countries with Consistently Improving Performance Across Multiple Indicators

Czech Republic		Slovak Republic
Netherlands	Hungary	Poland

# Scotland's Economic Performance: Overview

## Scotland's Inclusive Economic Growth Dashboard, 2021

Increased sustainable economic growth & more new, better and green jobs that will support greater wellbeing across Scotland



Employment Rate*	Productivity*	Population Growth*	Income Inequality*
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Adult Qualifications*	Exports Overseas* & to RUK	Entrepreneurial Activity*	Number of Businesses*
Employees > Real Living Wage*	Value of Risk Funding	Total* & Business R&D	High Growth Businesses*
Inward Investment (FDI)	Bank Lending to SMEs	Fair Work Practices*	Business Investment
Risk Funding Deals	Greenhouse Gas Emissions*	Exporting Businesses	Skills utilisation*
Higher Education R&D		Business Net Zero Actions	Innovative businesses*
Youth Unemployment*			Process Innovation
Management Practices			Product Innovation

\*Scottish Government National Performance Framework Indicator

Quartile Performance vs OECD/EU Countries or UK Countries/Regions

Quartile 1
Quartile 2
Quartile 3
Quartile 4

The dashboard sets out Scotland's performance for a range of indicators that drive and influence overall sustainable economic growth and wellbeing, focusing on those indicators that can be more influenced by the Enterprise Agencies.

Scotland's performance is compared to either OECD, European or UK countries and regions in terms of quartile rankings.

The dashboard allows quartile rankings over time to be monitored.

**This analysis considers Scotland's long term economic performance of Scotland and other OECD economies over time.**

# Scotland's Economic Performance: Overview

- Scotland's **economic challenges** are not new, and performance for some indicators has mostly been in the 3<sup>rd</sup> or 4<sup>th</sup> quartile of **comparison economies** annually for a number of years
- The **size of the performance gap** to the top quartile is also **considerable** for many of the indicators. Although the gap is narrowing for some, it is **widening** for others. The table below shows the change in performance (absolute and percentage) required to reach the performance of top-quartile comparator economies.
- The analysis shows that to match the best economies will require a **transformational shift** in Scotland's performance.
- However, as the analysis in the following slides show, achieving significant relative performance improvement can take a number of years.

	Scotland's Quartile Ranking ( vs OECD Countries//EU Countries or UK Regions)			Increase required in Scotland's performance to reach Quartile 1	Scotland indicator performance <b>improving</b> or <b>worsening</b>	Gap to Q1: <b>narrowing</b> or <b>widening</b>
	2017/18	2018/19	2019/20			
Employment rate (no. in work)	Quartile 2	Quartile 2	Quartile 2	+43,000 (+1.5%)	Improving	Widening
Exporting Businesses	Quartile 4	Quartile 3	Quartile 3	+5,570 (+45%)	Improving	Narrowing
Entrepreneurially active people	Quartile 2	Quartile 3	Quartile 3	+200,000 (+85%)	Improving	Narrowing
Business R&D investment	Quartile 3	Quartile 3	Quartile 3	+£1.8bn (+75%)	Improving	Widening
Number of Businesses	Quartile 4	Quartile 4	Quartile 4	+60,000 (+35%)	Improving	Narrowing
High Growth Businesses	Quartile 4	Quartile 4	Quartile 4	+100 (+15%)	Worsening	Narrowing
Business capital Investment	Quartile 4	Quartile 4	Quartile 4	+£13.3bn (+120%)	Worsening	Widening
Innovation Active businesses	Quartile 4	Quartile 4	Quartile 4	+1,500 (+20%)	Worsening	Widening
Product Innovating businesses	Quartile 4	Quartile 4	N/A	+520 (+10%)	Worsening	Widening
Process Innovating businesses	Quartile 4	Quartile 4	N/A	+1,246 (+25%)	Worsening	Widening

Quartile 2
Quartile 3
Quartile 4

# Scotland's economic performance – Longer Term Trends

## Productivity

- Scotland has been 'mid ranking' (near the bottom of the second quartile) for Productivity over the ten year period.
- Very few countries have significantly changed their ranking over the time period. Those that have experienced an improvement have tended to have started from a low quartile, with the exception of France.

	GDP per hours worked										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Scotland	16	16	16	17	16	16	16	16	16	16	N/A
<b>Countries with improved quartile ranking</b>											
Czech Republic	28	28	29	29	29	27	26	25	24	22	20
Estonia	32	34	31	31	30	31	30	30	28	27	21
France	10	10	11	11	11	11	12	12	10	7	7
Israel	27	25	25	25	26	26	25	26	25	24	18
Spain	20	20	20	20	20	19	19	19	20	19	16
<b>Countries with consistently strong performance</b>											
Denmark	6	8	7	7	6	6	5	4	4	4	4
Belgium	4	5	5	3	4	4	4	5	5	5	N/A
Luxembourg	2	1	2	2	1	1	1	1	1	2	2
US	3	4	4	8	7	7	8	7	8	8	5
Norway	1	2	1	1	2	3	3	3	3	3	3

Ranking based on 37 countries (Scotland + 36 OECD countries)

- There was also little change in rankings among the high performing countries.

OECD Quartile 1
OECD Quartile 2
OECD Quartile 3
OECD Quartile 4

# Scotland's economic performance – Longer Term Trends

## Employment

- Scotland has been either high or **mid ranking** for its employment rate over the last ten years.
- Those countries with improving rankings were those that joined the EU in mid 2000s, with the exception of the UK.
- Switzerland and Iceland have consistently had the highest employment rates over the last 10 years.

	Employment Rate (as % of all 15 to 64 year olds)											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Scotland	11	12	13	14	9	10	10	9	13	13	13	
<b>Countries with improved quartile ranking</b>												
Czech Republic	21	18	18	17	16	16	15	12	9	12	11	
Hungary	38	37	35	35	31	27	23	23	23	23	21	
Latvia	13	13	12	10	8	9	7	6	6	4	4	
Slovak Republic	34	32	33	34	34	31	29	29	26	26	25	
UK	14	14	13	12	10	8	9	8	8	8	8	
<b>Countries with consistently strong quartile rankings</b>												
Germany	10	6	6	6	6	7	6	7	7	7	6	
Iceland	2	2	2	1	1	1	1	1	1	1	2	
Netherlands	4	4	4	5	7	6	5	5	5	3	3	
New Zealand	6	8	8	7	5	5	4	3	3	5	5	
Sweden	7	5	5	4	4	3	3	4	4	6	7	
Switzerland	1	1	1	2	2	2	2	2	2	2	1	

Ranking based on 39 countries (Scotland + 38 OECD countries)

- Again, there was also **little change in rankings among the high performing countries.**

OECD Quartile 1
OECD Quartile 2
OECD Quartile 3
OECD Quartile 4

# Scotland's economic performance – Longer Term Trends

## Exports

- Scotland has been consistently **mid ranking** for its value of exports (including to rest of the UK) as a proportion of total GDP.
- Some countries have improved their ranking but few have improved enough to move to a higher quartile.
- Countries that consistently perform well unsurprisingly **tend to be small and border other countries, potentially allowing easier exporting**. Ireland is the exception to this but perhaps benefits from close historical economic ties, and bordering with, the UK.

	Annual Exports as a % of GDP											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Scotland (international +RUK)	11	13	15	17	16	15	15	16	16	16	16	16
Scotland (international Only)	35	36	36	35	36	36	35	36	36	36	36	36
<b>Countries with improved performance</b>												
Slovenia	10	10	10	10	10	9	9	8	7	4	4	6
Poland	20	19	19	19	17	17	16	15	14	15	15	13
Greece	36	33	33	32	29	25	25	26	25	22	20	24
Germany	19	18	18	17	18	18	17	17	16	16	17	17
<b>Countries with consistently high rankings</b>												
Luxembourg	1	1	1	1	1	1	1	1	1	1	1	1
Ireland	2	2	2	2	2	2	2	2	2	2	2	2
Slovak Republic	5	4	5	3	3	3	3	3	3	3	3	3
Hungary	3	3	4	5	4	4	4	4	4	6	7	5
Belgium	4	5	6	6	7	8	7	6	6	7	6	4

Ranking based on 39 countries (Scotland + 38 OECD countries)

OECD Quartile 1
OECD Quartile 2
OECD Quartile 3
OECD Quartile 4

# Scotland's economic performance – Longer Term Trends

## Business Capital Investment

- Scotland has **consistently ranked poorly** for Business Investment, as has the rest of the UK.
- **Ireland has seen a dramatic rise in rankings** over the past 10 years - going from the bottom quartile to the first. This perhaps could have contributed to Ireland's overall strong economic performance in recent years and the role of inward investment.
- Denmark, which ranks highly for many other indicators, ranks less well for business investment, though this has improved in recent years.

Annual Business Investment % of GDP											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Scotland	31	31	31	31	29	29	31	31	31	31	31
<b>Countries with improved performance</b>											
US	29	28	27	25	26	28	27	25	23	23	23
Norway	16	16	13	12	12	12	7	9	11	7	8
Japan	9	10	9	7	5	4	3	4	4	4	6
Denmark	24	24	22	21	22	22	20	20	19	16	15
Hungary	14	22	23	16	13	13	18	14	6	5	5
Ireland	30	30	29	29	27	24	5	12	21	1	1
<b>Countries with consistently high rankings</b>											
Sweden	4	6	6	5	7	5	4	3	3	6	7
Switzerland	3	5	4	4	3	2	2	2	2	3	4
Korea	1	1	3	2	1	1	1	1	1	2	2
Japan	9	10	9	7	5	4	3	4	4	4	6
Czech Republic	2	4	5	10	6	6	6	5	5	9	9

Ranking based on 32 countries (Scotland + 31 OECD countries)

OECD Quartile 1
OECD Quartile 2
OECD Quartile 3
OECD Quartile 4



# Scotland's economic performance – Longer Term Trends

## Gross Investment in R&D (GERD)\* and Business Enterprise R&D (BERD)

\*GERD = government + business + higher education R&D expenditure

- Scotland has **consistently ranked in the third quartile** for both gross (overall) R&D investment, and business R&D investment (despite ranking in the top quartile for higher education R&D).
- Japan** is notable for its top quartile performance for business capital investment (previous slide) as well as business R&D investment.
- Ireland**, which significantly increased its levels of business investment (previous slide), doesn't appear to have increased its levels of R&D investment which was mid ranking over the 10 year period.

OECD Quartile 1
OECD Quartile 2
OECD Quartile 3
OECD Quartile 4

	GERD as % of GDP											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Scotland	24	21	22	24	22	22	20	21	19	21	18	20
<b>Countries with improved rankings</b>												
Austria	10	9	8	9	8	7	6	6	5	6	5	5
Belgium	14	12	12	14	12	11	10	11	10	11	10	10
Germany	9	8	8	7	9	8	8	8	7	7	6	6
<b>Countries with consistently strong quartile rankings</b>												
Israel	1	1	1	1	1	1	1	1	1	1	1	1
South Korea	5	5	3	3	2	2	2	2	2	2	2	2
Sweden	3	3	4	5	4	5	5	5	3	3	3	3
Japan	4	4	5	4	5	3	3	3	4	4	4	4

	BERD as % of GDP											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Scotland	28	28	27	28	26	27	23	26	23	24	21	24
<b>Countries with improved rankings</b>												
Austria	10	9	7	9	7	6	4	6	5	6	5	7
Belgium	13	11	11	11	12	11	11	11	10	10	9	9
Czech Republic	24	22	22	22	18	17	15	17	17	17	15	16
Netherlands	21	20	20	17	16	13	13	15	13	12	13	14
<b>Countries with consistently strong quartile rankings</b>												
Sweden	4	4	5	5	6	4	6	5	4	4	4	4
South Korea	5	5	3	2	2	2	2	2	2	2	2	2
Israel	1	1	1	1	1	1	1	1	1	1	1	1
Japan	3	3	4	4	3	3	3	3	3	3	3	3

Ranking based on 38 countries (Scotland + 37 OECD countries)