

## Forecast for exports of advertising services, 2015-2026

(£m, nominal)

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Historical ONS data	1,425	1,707	1,909	2,090	2,193	2,357	2,392	2,749	2,838	3,557	4,076												
Forecast												4,178	4,746	5,222	5,719	6,184	6,716	7,298	7,910	8,551	9,224	9,930	10,669
Annual increase		282.00	202.00	181.00	103.00	164.14	35.20	356.82	88.44	718.93	519.51	101.85	567.77	475.93	497.87	464.25	532.24	582.52	611.46	641.57	672.90	705.48	739.37
Annual increase (%)		19.79%	11.83%	9.48%	4.93%	7.48%	1.49%	14.92%	3.22%	25.34%	14.61%	2.50%	13.59%	10.03%	9.53%	8.12%	8.61%	8.67%	8.38%	8.11%	7.87%	7.65%	7.45%

### Forecasting Exports for UK Advertising, 2015-2026 – methodological note

The forecasts for exports for the advertising were provided by Landman Economics, who used data on advertising exports for the years 2004 to 2014 provided by the Office for National Statistics. The advertising export data were then regressed against the following variables for the same time period:

- UK Gross Domestic Product
- Total UK Exports of goods and services
- Annual weighted Sterling Exchange Rate

All variables (except the exchange rate variable) were converted into real terms using the ONS's GDP deflator index.

The regression used was an ARMAX specification – this adapts the standard ARMA (auto-regressive moving average) time series regression to incorporate independent regressor variables.

A number of specifications were estimated with up to 2 AR and MA lags. Reviewing the results, none of the AR or MA terms were significant (and in some cases they led to difficulties with estimation convergence due to the small sample size). In the end an ARMAX (0,0) specification was used (i.e. with no AR or MA terms) as this provided the most parsimonious specification.

Advertising exports were forecast for the years 2015 to 2026 by prediction using the regression coefficients plus estimates of the three regressor variables for the years 2015 to 2026 (sourced from the Office for Budget Responsibility's March 2016 *Economic and Fiscal Outlook* publication).

As a robustness check, forecasts were also performed using the other ARMAX regression specifications (with up to 2 AR and MA lags) – these were very similar to the results from the chosen specification.

The forecasts for advertising exports were then converted back into nominal terms using OBR projections of the GDP deflator index for 2015-2026.