Press release: Trade rises on one year to go until Brexit milestone

- exports rise faster than imports
- trade deficit significantly narrows by £12.1 billion
- overall, UK exports of goods and services have increased by 12.1% to £622.1 billion.

With one year to go until the UK's departure from the European Union, new trade figures released (Thursday, 29 March) reveal exports of UK goods and services is at a record high.

UK exporters received a significant boost as the latest figures confirm global demand for UK goods and services is growing.

Data released from the Office for National Statistics shows in 2017, UK goods and services exports increased faster than imports – up 12.1% and 9.3%.

A drive in goods exports – up 13.4% – was due largely to demand for manufactured goods, and a rise in services exports – up 10.7% – was mainly driven for demand in UK business services. As a result the trade deficit narrowed significantly by £12.1 billion to £28.6 billion from £40.7 billion.

Non-EU countries continue to be the main destination for services exports (£171.4 billion), making up 61.3% of all services exports.

Overall, UK exports of goods and services have increased by 12.1% to £622.1 billion.

Annually, the UK's current account deficit was £82.9 billion (4.1% of GDP) in 2017, a narrowing of £30.7 billion from a deficit of £113.6 billion in 2016; this is the narrowest deficit as a percentage of GDP since 2011 when it was 2.4%.

International Trade Secretary, Dr Liam Fox said:

> More than one year on since the EU referendum, there are strong reasons for the UK to be optimistic. UK exports of goods and services have increased over the year and the UK deficit on trade in goods and services narrowed significantly.
>
> It's clear evidence that UK companies are succeeding on the world stage, and as an international economic department we are banging the drum for the growing demand for our goods and services.

The Department for International Trade

Statistics from the Department for International Trade (DIT) show that the UK

attracted more foreign direct investment projects than ever before (year 2016 to 2017). With more than 2,200 projects recorded, the post-referendum figures show an increase of 2% on the previous year. This means more than 75,000 new jobs were created, and 32,600 safeguarded, amounting to over 2,000 jobs per week across the country.

Through great.gov.uk, the department gives UK businesses access to millions of pounds' worth of potential overseas business. It also puts firms in touch with global buyers and since its launch it has promoted 11,400 export opportunities, and helped around 2.7 million users either begin or grow their exporting journeys.

Working to promote the UK to great trading nation, DIT has set up 14 working groups across 21 countries to strike trade deals and strengthen commercial ties with key trading partners.

Background

Read figures from the ONS Balance of Payments 29 March 2018.

Press release: Government to review powers to deal with unauthorised caravan sites

A government review of the law and powers to deal with unauthorised caravan sites and developments has been announced today (5 April 2018) by Housing Minister Dominic Raab.

Unauthorised sites can cause significant distress for both the settled and nomadic communities – an issue increasingly raised in Parliament over recent months.

Many local residents often raise concerns about anti-social behaviour including fly-tipping and noise, and evidence also shows that living on unauthorised sites can have a negative impact on people's health and education.

Since 2010, the number of traveller caravans on authorised sites has increased. However latest figures show approximately 16% of all caravans – around 3,700 – are on unauthorised sites.

Housing Minister Dominic Raab said:

> The vast majority of the travelling community are decent and law-

> abiding people. But, we are particularly concerned about illegal traveller encampments, and some of the anti-social behaviour they can give rise to.
>
> We must promote a tolerant society and make sure there are legal sites available for travellers, but equally the rule of law must be applied to everyone.

The government is committed to taking action and is seeking views on what more can be done to ensure local authorities, the police and landowners can deal with unauthorised sites and developments efficiently.

Ministers also want to hear about any barriers to the provision of authorised sites.

The consultation – carried out jointly by the Ministry of Housing, Communities and Local Government, Home Office and Ministry of Justice – covers police and local authority powers, court processes, government guidance, the provision of legal sites, and the impact on settled and nomadic communities.

It will emphasise the government's commitment to the fair and equal treatment of all communities, including respecting people's right to a nomadic way of life, while balancing this with the interests of settled communities.

The existing powers for local authorities and the police to deal with unauthorised encampments can be found in Dealing with illegal and unauthorised encampments, published in March 2015.

For any enquires about the consultation please contact UnauthorisedDevelopmentandEncampments@communities.gsi.gov.uk

Read a report by the Traveller Movement, commissioned by the National Inclusion Health Board, looking at how the living conditions of Gypsies and Travellers lead to poor health.

Read the consultation.

The consultation will run until 15 June.

News story: English fishing vessels sought for trials which may help to reduce discards

The Marine Management Organisation (MMO) is looking for English fishing

vessels working in the North Sea to take part in three trial schemes which may help to reduce discards and encourage more selective fishing behaviour.

Vessels taking part in the trials may be fitted with remote electronic monitoring (REM) equipment or be involved in trying out new gears and may be awarded additional quota in return.

The MMO has run fully documented fisheries (FDF) schemes, sometimes referred to as catch quota trials, since 2011. As part of these schemes remote electronic monitoring (REM) equipment is fitted to vessels to encourage a reduction in discards. In addition, REM has proven to be a useful tool for gathering scientific data. The MMO has collaborated with the Centre for the Environment, Fisheries and Aquaculture Sciences (Cefas) on exploring this use.

The MMO is looking for English fishing vessels to apply for two fully documented fisheries schemes in 2018:

1. North Sea Fully Documented Fisheries
2. North-East Nephrops Fully Documented Fisheries

The MMO is also looking for English vessels to take part in the North East Nephrops Net Selectivity trials which is looking to trial new gears which have the potential to be more selective.

North Sea Fully Documented Fisheries

To take part the vessel must be English-registered and a member of a Producer Organisation. In return for taking part in this scheme, vessels will be able to access additional quota for North Sea cod and saithe. In addition scientific quota may be available.

Vessels must apply to take part by 16 April 2018.

The aims of the scheme in 2018 are to:

- Test the use of REM as a control and enforcement tool
- To monitor compliance with fisheries legislation
- Test new developments in REM technologies
- Trial the use of inter-species flexibility (ISF)

North-East Nephrops

This is a new scheme for 2018. To take part vessels must be English-registered and work within the North East nephrops fishery. In return for participation in this scheme, vessels will be able to access additional quota for North Sea haddock and whiting. In addition, scientific quota for nephrops may be available.

Vessels must apply to take part by 30 April 2018.

The aims of this scheme are to:

- Test the use of REM as a control and enforcement tool within the nephrops fishery
- To monitor compliance with fisheries legislation
- Test new developments in REM technologies

North-East Nephrops Net Selectivity trials

This is a new scheme for 2018. To take part vessels must be English-registered and work within the North East nephrops fishery. When applying for this scheme vessels are asked to propose how they might improve their gear selectivity and the methods they will use to do this. In return for participation in this scheme, vessels will be able to access additional quota for North Sea haddock and whiting.

Vessels must apply to take part by 30 April 2018.

The aims of this scheme are to:

- Trial the use of highly selective gear to reduce discards and catches of below Minimum Conservation Reference Size (MCRS) fish
- To document the effects of using highly selective gear in this fishery

For more information on the scheme email ukcatchquota@defra.gov.uk or call 0300 123 1032.

This blog post explains more about how fully documented fisheries work in practice.

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Vessels should apply to take part by 18 April 2018, but if unable to do so by the deadline should contact the MMO as soon as possible to express an interest.

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For more information on the scheme email ukcatchquota@defra.gov.uk or call 0300 123 1032. If you would like to take part but have issues meeting the stated deadlines please contact the MMO as soon as possible to express your interest.

This blog post explains more about how fully documented fisheries work in practice.

News story: UK Space Agency invites teams to submit more details on ISS experiments

The UK Space Agency plans to select a number of these to fund for flight to the ISS.

Following a call for ideas that was published in December 2107, 25 ideas were received. These were reviewed by the UK Space Agency and European Space Agency for feasibility, scientific merit, fit to UK priorities and outreach opportunities. From the 25 submitted 14 have been invited to submit full details of their proposed experiments. These will be fully reviewed before selection.

Libby Jackson, Human Spaceflight and Microgravity Programme Manager, said:

> The large number and high quality of ideas received in this initial round is a testament to the strength of the microgravity community here in the UK. I am very excited to see the full proposals and give the scientific and academic communities this opportunity to get their experiments to the International Space Station.

Earlier this week, on Monday, 2 April, the SpaceX Dragon spacecraft launched

on a Falcon 9 rocket carrying cargo to the ISS that showcases the ingenuity of the UK space sector. The cargo included a UK-built satellite, RemoveDEBRIS, that will test different approaches to removing space junk from the Earth's orbit, and ASIM, an international science package to study powerful lightning from space.

The projects selected for full proposals span a broad range of scientific disciplines, including human life science, biology, physical sciences and Earth observation.

The 14 teams selected are:

University of Birmingham, Professor Kai Bongs and Dr Yeshpal Singh, Optical Flywheel on the International Space Station

This project seeks to demonstrate the concept of an optical flywheel in space. Such technology would enable a wide range of key future commercial applications using optical links. A number of fundamental science research areas, such as the fields of relativistic geodesy, detection of gravitational waves, and cold atom-based interferometry would benefit from the ability to use such technology.

University of Brighton, Professor Marco Marengo, Waste Heat Recovery through Magnetic Pulsating Heat Pipe

The proposed project aims to investigate the electrical power generation and thermal performances of a novel pulsating heat pipe system with one or more solenoids and a magnetic fluid as working fluid. Confirming the feasibility of this technology would allow it to be applied to a wide range of applications, both on ground and the space environment.

University of Bristol, Professor Kate Robson-Brown, Changes to the spine in microgravity: a zebrafish model

This experiment proposes to employ the unique environment of microgravity on the ISS to study the response of the zebrafish spine to microgravity, to improve understanding of how the spine degenerates in humans.

University of Edinburgh, Professor Charles Cockell, Motile microbes in space (MOTILE)

This experiment seeks to understand how microgravity affects microbes that can swim (motile bacteria) compared to those that cannot. The answer to this question may provide an explanation for a lot of data concerning the behaviour of microbes in space and the answer would give us new insights into how life adapts to space.

University of Edinburgh, Professor Grunde Jomaas, Fire Risk Management for Spacecraft through Fundamental Flammability

Studies

This project aims to study, understand and improve the fundamental scientific knowledge of fire behaviour in microgravity for the purpose of delivering a well quantified fire safety strategy and the bespoke technologies necessary to implement it in future exploration missions.

University of Exeter, Dr Tim Etheridge, Exploring novel therapeutics to health decline in space

A high-throughput, automated in vivo approach: This experiment aims to study whether a panel of novel pharmacological compounds has the potential to prevent spaceflight-induced health decline in vivo, and do so using a new automated, high-throughput culturing device. This work would demonstrate the efficacy of existing drugs on preventing/attenuating key indices of health decline during spaceflight and validate the technology of the culturing device.

Glasgow Caledonia University, Dr Suzanne Hagan, Investigation of Tear Fluid Biomarkers as an Indicator of Human Health

This proposal seeks to find out if there are measurable changes to tear fluid inflammatory proteins in astronauts exhibiting Spaceflight Associated Neuro-ocular Syndrome (SANS) which may serve as potential biomarkers to aid in earth based diagnostics of conditions affecting the central nervous system.

University of Kent, Dr. Penelope Wozniakiewicz, Dust Characterisation with the International Space Station

This project proposes the installation of a passive collector experiment on-board the International Space Station to investigate particle populations in low Earth orbit. Monitoring particle populations is vital to understanding the hazards they pose to spacecraft of all kinds in orbit and therefore how to mitigate against them, and also aids understanding of the inventory, formation and evolution of Solar System bodies from which the natural dust population originates.

University of Liverpool, Professor Malcolm Jackson, Microgravity as a model for accelerated skeletal muscle ageing

Previous work by this group has shown that age-related deficits in muscle are linked with an inability of muscle from older people and animals to respond appropriately to exercise. They wish to investigate if a similar failure occurs in muscle exposed to microgravity, to aid understanding of the underlying mechanisms that affect muscle in the ageing population.

University of Nottingham, Professor Nathaniel Szewczyk, C. elegans Exeperiment-2 (ICE-2)

This experiment proposes to build on previous experiments to investigate what molecules control the biological response to spaceflight by studying the

response of the worm C. elegans to microgravity. The team anticipate that identifying a molecular mechanism by which spaceflight alters biology further work could be undertaken how this impacts astronaut health, means to counter it and relevance to Earth biology.

University of Oxford and Kings College London, Professor Peter Robbins and Dr Thomas Smith, Study of Advanced Gravitational Physiology of the Lung

This project seeks to understand the factors that cause the baseline variation in inflation in the lungs that is normally present in healthy people by applying the technique of in-airway molecular flow sensing. This information will help develop innovative means of detecting lung disease on Earth.

RAL Space Daniel Gerber, TARDiS

THz Atmospheric/Astrophysics Radiation Detection in Space: This project proposes a remote sensing payload for the ISS which would detect Terahertz signals from space and the Earth’s atmosphere. Monitoring the abundance of atomic oxygen in the upper atmosphere would improve understanding of upper atmospheric cooling, which is believed to be directly related to climate change. Looking into space would pinpoint the location of newly born `warm’ stars which would improve understanding of the physical processes in star formation.

University of Strathclyde, Dr Marcello Lappa, Thermovibrationally-driven Particle self-Assembly and ordering mechanisms in low gravity (PAMELA)

This experiment would seek to explore a new control method of complex fluids based on the application of “vibrations”. Once this technique has been validated through experiments, it could be could be applied to allow the production of “new” inorganic or organic materials in space with properties that cannot be obtained on the Earth.

University of Surrey, Professor Simon Archer, Implementation on the ISS of blood transcriptome-based biomarkers

The physical effects of disruption to sleep patterns are understood but the underlying molecular mechanisms are less understood. This experiment would seek to detect disruption to the temporal organisation of the human blood transcriptome in crew in space, to seek to provide a model for ageing on Earth and further validate the team’s sleep restriction and simulated microgravity bed rest findings.