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ELECTION ANALYSES SERIES

A series of background briefings on the policy issues in the June 2017 UK General Election

Brexit and the UK Economy

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CENTRE *for* ECONOMIC PERFORMANCE

CEP ELECTION ANALYSIS

Brexit and the UK Economy

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- The June 2016 referendum gave a mandate for the UK to leave the European Union (EU), but offered no guidance on what form Brexit should take.

- CEP research finds that remaining in the Single Market would minimise the economic costs of Brexit. Leaving the EU without any new deal in place would be the most costly alternative.

- There is not yet any clear evidence that Brexit has affected UK GDP, but this does not mean Brexit has had no effect on the economy. The Brexit vote has already made the UK poorer by reducing the value of the pound.

- Between the referendum and the end of April 2017, sterling depreciated by 13% against the US dollar and 9% against the euro. The depreciation is a signal that expectations about the UK's future economic performance have deteriorated.

- The depreciation of sterling has hurt UK consumers by increasing the price of imports, leading to higher inflation and lower real wage growth. CPI inflation has risen from 0.5% in June 2016 to 2.7% in April 2017. Real wage growth has declined from 1.3% in June 2016 to negative 0.5% in March 2017. To date, there is no evidence that the depreciation has boosted UK exports or reduced the trade deficit.

- The Conservatives have pledged to take the UK out of both the Single Market and the customs union, while simultaneously negotiating a new partnership with the EU. Leaving the Single Market would mean the UK experiencing higher trade barriers, lower trade and reduced living standards. The Conservatives would try to mitigate these costs by seeking a new deal with as few barriers to trade and investment as possible.

- The Conservatives have not ruled out a 'no-deal' Brexit, leaving the EU without any new agreement in place. While it is a tautology that a sufficiently bad deal must be worse than no-deal, in practice the no-deal outcome, where the UK and EU trade under WTO terms, is the worst-case scenario for the UK economy. The economic costs of Brexit would be twice as large in the no-deal case than if the UK remains in the Single Market.

- Labour's plan for Brexit is far from clear, but in many ways it resembles the Conservatives' position. The only unambiguous difference is that Labour acknowledges that no-deal is the worst possible option for the UK. The Liberal Democrats propose that once a new deal has been negotiated, the UK should hold a second referendum to choose between the new deal or remaining in the EU.

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Introduction

This general election is pitched as the 'Brexit Election', one that will give the incoming government a mandate to negotiate the terms of the UK's exit from the European Union (EU). The Conservatives and Labour have both made it clear they will respect the referendum result and take the UK out of the EU. But there are many ways to leave and the referendum did not allow voters to choose between them – Brexit does not simply mean Brexit. What matters, of course, is the content of the withdrawal agreement and of any new trade deal between the UK and the EU.

The election context

Brexit is the most important issue of the election campaign – indeed, it is the reason the election is taking place. The Conservatives have pledged to take the UK out of both the Single Market and the customs union, while simultaneously negotiating a new partnership with the EU. Leaving the Single Market would mean the UK experienced higher trade barriers, lower trade and reduced living standards (Dhingra et al, 2016), but the Conservatives would try to mitigate these costs by making sure there are as few barriers to trade and investment as possible.

Presumably this means that they would seek an ambitious free trade agreement with the EU, but it is uncertain what such an agreement would contain and the Conservative manifesto leaves open the possibility that the UK could leave the EU without any new agreement in place.

It is a tautology that a sufficiently bad deal must be worse than no deal, but in practice the no-deal outcome, where the UK and EU trade under WTO terms, is the worst-case scenario for the UK economy. Dhingra et al (2016) estimate the economic costs of Brexit are twice as large in the no-deal case than if the UK remains in the Single Market.

Labour's plan for Brexit is far from clear, but in many ways it resembles the Conservatives' position. Labour hopes to retain the benefits that come from membership of the Single Market and the customs union, but also pledges that freedom of movement with the EU would end after Brexit.

Since labour mobility is a precondition for membership of the Single Market, this implies Labour would take the UK out of the Single Market and then seek a new agreement that minimises the resulting increase in trade costs. The only unambiguous difference between Labour and the Conservatives on Brexit is that Labour acknowledges that no-deal is the worst possible option for the UK.

In contrast to Labour and the Conservatives, the Liberal Democrats want the UK to stay in both the Single Market and the customs union. They also propose that once a new deal has been negotiated, the UK should hold a second referendum to choose between the new deal or remaining in the EU.

What Brexit means

In preparing for Brexit, the UK government and the EU need to make decisions in four main areas related to trade and investment.

First and most importantly, what will the UK's relationship with the EU be once Brexit occurs?

Second, how will UK law change following withdrawal from the EU? Currently, in areas where the UK has ceded sovereignty to the EU, such as regulation of the Single Market, UK law is shaped by decisions made at the EU level.

The government's White Paper proposes legislation transposing EU regulations into UK law. Whether this will eventually be replaced by a new regulatory policy is uncertain, but since the EU operates about 34 regulatory agencies, the UK will need to decide which competencies it replicates and which it can negotiate to be shared with the EU. There will be a cost of developing the competencies necessary to manage these areas, since the required skills do not currently exist within the UK civil service.

Third, the UK will need to decide what policies to adopt in areas that currently fall under the authority of the EU such as trade relations with non-EU countries.

In addition, the UK is the third largest recipient of EU research and innovation funding (Ugwumadu, 2013). Following Brexit, the government will need to decide whether to replace this funding. The White Paper aspires to be part of EU research programmes, but this is up in the air until the EU agrees.

Fourth, will there be a transition period between the date Brexit occurs and the date a new deal comes into force? Since Article 50 only allows two years for exit negotiations, a transition period will probably be needed to allow sufficient time for a new trade deal to be agreed.

The remainder of this report describes alternative post-Brexit futures for UK-EU relations and summarises the economic and political consequences of each option. It then discusses how Brexit has affected the UK economy in the year since the referendum.

As will become clear, the key trade-off that the UK faces outside the EU will be the same trade-off that has always dominated the country's European policy. There are economic benefits from integration, but obtaining these benefits comes at the political cost of giving up sovereignty over certain decisions. Inside or outside the EU, this trade-off is inescapable.

Long-run economic consequences

The Conservatives' 'no-deal' option

Suppose the UK leaves the EU without putting in place any new trade deals. Then the country's trade with both the EU and almost all the rest of the world would be governed by the World Trade Organization (WTO).

As of July 2016, the WTO had 164 members comprising all major economies and most minor ones. Under WTO rules, each member must grant the same 'most favoured nation' (MFN) market access, including charging the same tariffs, to all other WTO members. The only exceptions to this principle are that countries can choose to enter into free trade agreements that cover substantially *all* trade between them, such as the EU or the European Free Trade Association (EFTA), and they in turn can give preferential market access to developing countries.

As a WTO member, the UK's exports to the EU and other WTO members would be subject to the importing countries' MFN tariffs. Compared with EU or EFTA membership, this would raise the cost of exporting to the EU for UK firms (Dhingra et al, 2016). The UK's services trade would also be subject to WTO rules. Since the WTO has made far less progress than the EU in liberalising trade in services, this would mean reduced access to EU markets for UK service producers.

Estimating a state-of-the-art model of international trade using comprehensive trade data, Dhingra et al (2016) estimate the no-deal option would lead to a large reduction of about 40% in trade with the EU over the next ten years. The economic effect of this change would be equivalent to a 2.9% reduction in the UK's income per capita (or 2.6% net of changes in budget payments from the UK to the EU). In this no-deal scenario with large increases in trade costs, Brexit would lower income per household per year by £1,890 relative to the UK's existing relationship with the EU.

But these estimates are based on a static trade model that does not account for the dynamic effects of trade on productivity. Trade can have positive effects through increasing competition, which reduces excess profits and promotes efficiency. Competition, access to superior intermediate goods and a larger export market can also stimulate innovation. Alternative ways to estimate the impact of Brexit on the UK economy suggest accounting for these dynamic effects would double or triple the costs of Brexit described in the previous paragraph.

The WTO has no provisions for free movement of labour, so under this scenario, free labour mobility between the UK and the EU would cease. But free movement of capital between the UK and EU would probably continue, as the EU prohibits restrictions on capital mobility not only within the EU, but also with countries outside the EU.

After leaving the EU, the UK would no longer be bound by the EU's common external tariff, but would be free to set its own MFN tariffs on imports. As a starting point, the UK could establish the existing tariff commitments that it has through the EU. It could then choose to reduce its import tariffs below EU levels to lower import costs for UK consumers and firms and increase the competition faced by UK businesses.

But since the average tariff charged on imports to the EU is only 1% (World Bank, 2015), there is limited scope for such further tariff reductions. There is also limited scope to lower 'non-tariff barriers' through unilateral action since reducing these barriers often requires harmonising polices, regulations or product standards across countries, which requires international agreement.[1] As a result, unilaterally removing all tariffs on imports into the UK would reduce the costs of Brexit by just 0.3 percentage points. The overall effect of Brexit is still estimated to be negative.

The pay-off for the lack of economic integration in the no-deal scenario would be greater political sovereignty. Being outside the Single Market would enable the UK government to set economic policy and regulatory standards without taking account of the preferences of other EU members. But any divergence in regulation between the UK and the EU would still act as a non-tariff barrier to trade and raise the cost of doing business with Europe.[2]

Overall, it is uncertain how leaving the Single Market would affect the UK's economic policies and regulations and whether any changes would be beneficial. The OECD finds that even as a member of the Single Market, the UK's labour and product markets are substantially less regulated and more flexible than those of other EU countries (Koske et al, 2015). The manifestos do not contain enough detail to determine the set of regulations that will be retained or replaced.

If the UK and the EU do agree a new trade deal, its scope will depend on how much control over regulations and immigration the UK wishes to get and whether it is willing to trade-off less control for greater market access. So what are the options the UK could pursue in search of an ambitious trade deal with the EU?

Re-joining the European Free Trade Association

When the UK opted out of joining the European Economic Community in 1957, it founded EFTA as an alternative. EFTA is a free trade area covering all non-agricultural goods. EFTA also has free trade agreements with the EU and numerous other countries.

Re-joining EFTA would guarantee UK goods tariff-free access to the EU and ensure the UK did not impose tariffs on goods imported from the EU. But it would not provide for free movement of people or free trade in services between the UK and the EU. Since the UK would not belong to the Single Market, re-joining EFTA would also probably result in a gradual divergence between economic regulation in the UK and the EU. This would increase non-tariff barriers to trade between the UK and the EU.

Although EFTA membership has been recommended by the House of Commons' International Trade Committee, the economic costs of joining EFTA would look similar to the no-deal scenario. Dhingra et al (2016) estimate the costs of Brexit to the UK economy will come primarily from increases in non-tariff barriers between the UK and the EU, not from changes in tariffs.

In 1960, when EFTA came into being, reducing tariffs was the primary goal of efforts to lower trade costs and promote international economic integration. But the success of the WTO, the EU and other regional and bilateral trade agreements in lowering tariffs has shifted the focus

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[1] 'Non-tariff barriers' comprise any measure that raises the costs of trade but does not take the form of a tariff. It covers everything from quantitative trade restrictions such as import licensing to border costs of complying with customs procedures and behind the border costs caused by regulatory or product standard differences across countries. The EU Single Market has reduced non-tariff barriers between member states by removing customs procedures and harmonising regulations and product standards.

[2] https://www.publications.parliament.uk/pa/cm201617/cmselect/cmintrade/817/817.pdf

of today's trade negotiations towards non-tariff barriers and trade in services. EFTA is not designed to promote integration in these areas. Consequently, all EFTA members have either left to join the EU or sought greater integration with the EU through other channels.

At present, the members of EFTA are Iceland, Liechtenstein, Norway and Switzerland. All these countries are either members of the European Economic Area (EEA) – Iceland, Liechtenstein and Norway – or have their own bilateral agreements with the EU (Switzerland).

Unless the UK wishes to opt out of all forms of economic integration except tariff removal, re-joining EFTA is not a stand-alone solution to the problem of what should follow Brexit. An ambitious new trade deal that keeps trade barriers with the EU low would therefore need to look more like a Swiss model or a Norwegian model. But this will be difficult to achieve without free movement of people, which the Conservative manifesto has ruled out.

A longer-term Swiss model of bilateral deals

Switzerland is not a member of the EU or the EEA. Instead, it has negotiated a series of bilateral treaties governing its relations with the EU. Usually, each treaty provides for Switzerland to participate in a particular EU policy or programme. For example, among many others, there are treaties covering insurance, air traffic, pensions and fraud prevention. Switzerland is also a member of EFTA, which provides for free trade with the EU in all non-agricultural goods.

The bilateral treaty approach allows Switzerland the flexibility to negotiate which EU initiatives it wishes to participate in. Through EFTA membership and an agreement covering technical barriers to trade, Switzerland has achieved a similar level of goods market integration with the EU as EEA countries. As a result, Dhingra et al (2016) estimate the loss to the UK under a Swiss scenario is equivalent to a 1.3% reduction in income per capita (net of changes in budget payments to the EU), a halving of the reduction under the no-deal scenario outlined above.

Currently, there is also free movement of people between Switzerland and the EU, although Switzerland is contemplating giving residents hiring priority over foreign workers in high unemployment areas, following its 2014 referendum on imposing immigration restrictions (BBC, 2016).

Switzerland and the EU have not reached a comprehensive agreement covering trade in services. Consequently, Switzerland is not part of the Single Market for services and Swiss financial institutions often serve the EU market through subsidiaries based in London. This is the position that the financial services sector in the UK could find itself in, which would result in a reduction in the surplus in services trade and make the UK a less attractive destination for foreign investment in financial services.

Switzerland has almost no influence over the design of the EU programmes in which it participates. It makes an in or out choice, but has no ability to shape the content of the programmes. The treaties require Switzerland to implement policies and legislation set by the EU.

In this sense, Switzerland also trades integration for sovereignty and for the most part, Switzerland has chosen to remain relatively closely integrated with the EU by accepting most EU economic regulation. Like the EEA countries, Switzerland makes a financial contribution to the EU to cover regional funding and the costs of the programmes in which it participates. Switzerland's contribution in recent years has averaged around £53 per capita, 60% lower than the UK's net contribution per capita (House of Commons, 2013). Despite this saving in membership fees, the UK would have a net loss in income of £850 per household, largely due to the higher trade costs in services.

Adopting the Swiss model following Brexit could be appealing if the UK is looking for an 'à la carte' approach to European integration. But there are drawbacks. The EU would be under no obligation to serve the UK everything on the menu, which means that the Swiss model would not provide the same guarantee of market access that EU or EEA membership offer. Overall, it is likely the Swiss model would result in less economic integration between the UK and the EU than EEA membership, leading to higher economic costs of Brexit.

An interim Norwegian model

While the Swiss model of bilateral treaties took decades to evolve, a ready solution for maintaining market access is the Norwegian model. As the template already exists, the current Brexit negotiations could adopt this as a transitional arrangement. It is also compatible with the manifesto of the Liberal Democrats in as much as it maintains access to the Single Market.

The EEA was established in 1994 to give European countries that are not part of the EU a way to become members of the Single Market. The EEA comprises all members of the EU together with three non-EU countries: Iceland, Liechtenstein and Norway. Members of the EEA are part of the Single Market and there is free movement of goods, services, people and capital within the EEA. Since EEA members are part of the Single Market, they must implement EU rules concerning the Single Market, including legislation regarding employment, consumer protection, environmental and competition policy.

Joining the EEA would allow the UK to remain part of the Single Market while not participating in other forms of European integration. EEA membership does not oblige countries to participate in the monetary union, the EU's common foreign and security policy or the EU's justice and home affairs policies. EEA members also do not participate in the common agricultural policy (CAP). While there is free trade within the EEA, EEA members are not part of the EU's customs union, which means that they can set their own external tariff and conduct their own trade negotiations with countries outside the EU.

EEA members effectively pay a fee to be part of the Single Market. They do this by contributing to the EU's regional development funds and contributing to the costs of the EU programmes in which they participate. In 2011, Norway's contribution to the EU budget was £106 per capita, only 17% lower than the UK's net contribution of £128 per capita (House of Commons, 2013). Becoming part of the EEA would not generate substantial fiscal savings for the UK government.

Ten years after Brexit in a Norwegian model, Dhingra et al (2016) estimate trade with the EU would fall by a more modest 20 to 25%, and the economic costs would be equivalent to a reduction in the UK's income per capita of 1.3% per year (net of changes in budget payments to the EU), again a halving of the no-deal scenario. Consequently, EEA membership is an appealing option for those attracted by the economic benefits of the EU, but who are not in favour of 'ever closer union'.

There are other downsides to joining the EEA in addition to the membership fee and the need to follow EU regulations. For example, as an EEA member Norway does not belong to the

EU's customs union. This means Norwegian exports must satisfy 'rules of origin' requirements to enter the EU duty-free.[3]

With the growing complexity of global supply chains, verifying a product's origin has become increasingly costly and time-consuming. If the UK joined the EEA, part of this cost would be borne by UK exporters, which would need to limit their use of inputs imported from outside the EU to meet the EU's rules of origin (Stewart-Brown and Bungay, 2012). The EU can also use anti-dumping measures to restrict imports from EEA countries, as occurred in 2006 when the EU imposed a 16% tariff on imports of Norwegian salmon.

Nevertheless overall, while these consequences of EEA membership would increase the cost of doing business with the EU, they are limited compared with the costs the UK would face outside the Single Market. The UK could avoid a cliff-edge for workers and companies when Brexit occurs by negotiating an interim arrangement like the one that Norway has. Given there is already a model to follow, this arrangement could be negotiated in a timely fashion.

The economy one year on from the referendum

In the long run, Brexit is expected to reduce UK living standards through reductions in trade and foreign direct investment, but these effects will take many years to materialise. It is harder to forecast the short-run economic effects of Brexit in the period before the UK leaves the EU. How the economy responds will depend on what businesses and consumers expect to happen in the future and on whether they change their behaviour in advance of Brexit.

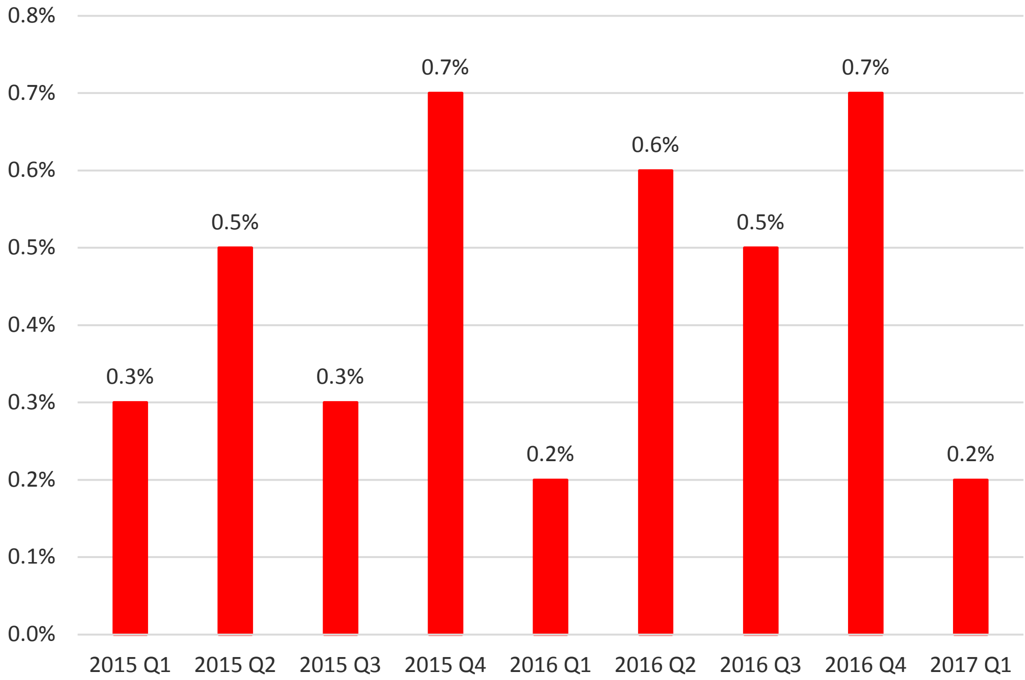
In the past year, there has been no obvious effect of the referendum outcome on UK GDP, which has continued to increase at a similar rate to before the vote. Figure 1 shows quarterly real GDP growth since the start of 2015. Growth has averaged 0.47% in the three quarters since the referendum compared to 0.43% in the previous six quarters.

The Brexit vote has increased uncertainty about the future of the UK's economic relations with the EU. When uncertainty is high, businesses often adopt a wait-and-see approach and delay or cut investment projects and hiring (Baker et al, 2015). Such uncertainty also makes the UK a less attractive investment destination for multinational firms that want to produce and sell in the Single Market.

It is too soon to say whether anticipation of Brexit will cause an investment slowdown. But there is increasing evidence of firms planning to move jobs out of the UK because of Brexit, particularly in the finance industry, where banks such as JPMorgan and Deutsche Bank have already warned that they plan to move staff away from London (*Financial Times*, 2017).

[3] 'Rules of origin' are used to determine whether a product originated in a free trade area and is eligible to enter a market duty-free. The precise specifications of rules of origin are complex and variable, but typically to benefit from free trade, a product must undergo a certain level of processing within a country that belongs to the free trade area, or a certain proportion of its value-added must come from within the free trade area.

Figure 1: Quarterly UK GDP growth, 2015 to 2017



Notes: Quarter on quarter growth, seasonally adjusted. Source: ONS.

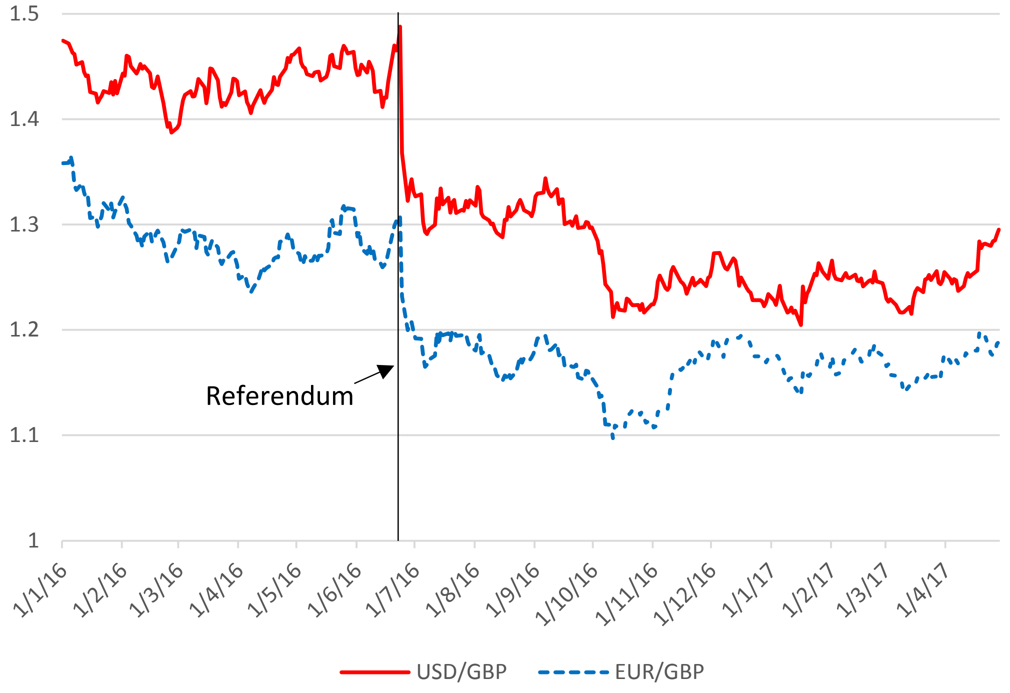
Because GDP growth has not declined since the referendum, it is tempting to conclude that Brexit is yet to have an economic impact. But this would be wrong. Brexit has already lowered UK living standards through its effect on the value of the pound. At the end of April 2017, sterling was 13% lower against the US dollar and 9% lower against the euro than on the day of the referendum (see Figure 2).

The depreciation of sterling is bad news both because of what it tells us and because of its impact on the UK. The depreciation is a signal that investors' expectations about the UK's economic performance have deteriorated. Many factors determine exchange rate movements, but one of them is economic growth. Fast growth leads to exchange rate appreciation, while countries that grow slower than the rest of the world see their currency become less valuable. The pound depreciated because markets anticipate that the UK's future economic growth will be lower than it would have been if the UK remained in the EU.

The effect of the depreciation has been to reduce the UK's terms of trade – that is, the price of the UK's exports relative to its imports. The terms of trade are a measure of how much the UK can buy from the rest of the world in return for what it produces. Crucially, a reduction in the terms of trade makes the UK worse off even if GDP is unchanged because it means the UK can afford to buy less in return for its exports.

Consider the following simple example, which illustrates the impact of a reduction in the terms of trade. Suppose the UK only produces apples and that it grows 30 apples per year. UK consumers demand both apples and oranges in equal numbers, so the UK exports apples in order to pay for orange imports. If one apple can be exchanged for one orange, the UK will export half its apples and UK consumers will eat 15 apples and 15 oranges.

Figure 2: Sterling exchange rate, 2016 to 2017



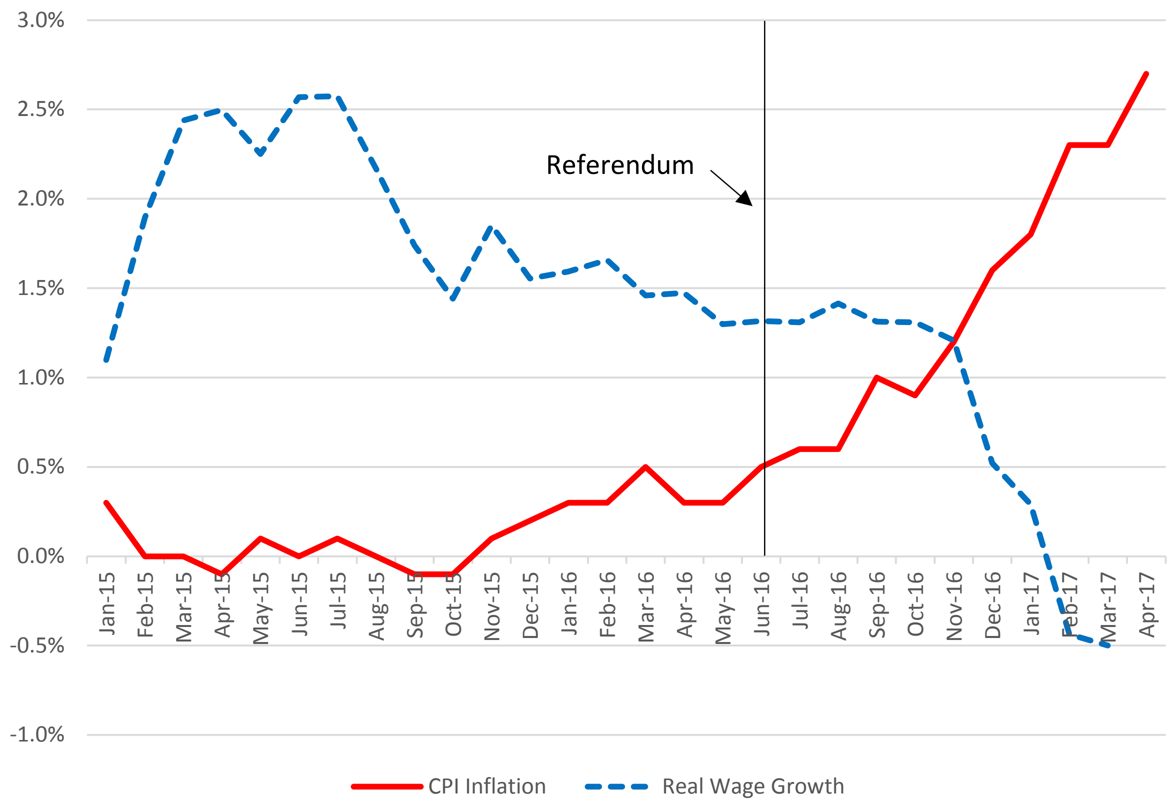
Notes: End of day exchange rates. Source: Bloomberg.

But now suppose the UK's terms of trade deteriorate so that one apple is only worth half an orange. Then the UK will end up exporting 20 apples to buy only 10 oranges. UK GDP (apple production) has not changed, but because of the terms of trade shock, UK consumers are worse off as they now only eat 10 apples and 10 oranges. To keep consumption constant following this shock, UK production would need to increase to 45 apples per year.

The depreciation of sterling may provide a boost to UK GDP due to increased demand for cheap UK exports. But even if this happens, it is not likely to offset fully the costs from lower terms of trade.

To date, the impact of the depreciation on UK living standards has operated through higher prices. Rising import costs have led to a sharp rise in inflation from 0.5% in June 2016 to 2.7% in April 2017, as shown in Figure 3. Since nominal wages have continued to grow at around 2% per year this has led to dramatic fall in real wage growth. In the year to March 2017, real wages actually declined by 0.5%. (See the CEP Election Analysis on Real Wages and Living Standards for more detailed analysis.) This shows how Brexit has already started to make UK citizens poorer.

Figure 3: UK inflation and real wage growth, 2015 to 2017



Notes: Inflation is annual change in CPI. Wage growth is annual change in seasonally adjusted Regular Pay. Source: ONS.

Concluding remarks

The referendum outcome gave a mandate for the UK to leave the EU, but offered no guidance on what form Brexit should take. Remaining in the Single Market would minimise the economic costs of Brexit. Leaving the EU without any new deal in place would be the most costly alternative. The next government will face a choice of whether to prioritise asserting national control over the economy or developing policies that maximize economic well-being. The Conservative and Labour manifestos suggest that, whichever party wins the election, control will be their priority.

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Further reading

Baker, S.R., N. Bloom and S.J. Davis (2015) 'Measuring Economic Policy Uncertainty', NBER Working Paper No. 21633.

BBC (2016) 'No quotas in 'compromise' Swiss immigration bill', 16 December, (http://www.bbc.co.uk/news/world-europe-38340407).

Dhingra, S., G. Ottaviano, T.A. Sampson and J. Van Reenen (2016) 'The Consequences of Brexit for UK Trade and Living Standards', CEP Brexit Analysis No. 2, (http://cep.lse.ac.uk/BREXIT/abstract.asp?index=4991).

Financial Times (2017) 'Warnings of Staff Relocations After Brexit Rise Sharply', 8 May.

House of Commons (2013) 'Leaving the EU', Research Paper 13/42, 1 July.

Koske, I., I. Wanner, R. Bitetti and O. Barbiero (2015) 'The 2013 Update of the OECD Product Market Regulation Indicators: Policy Insights for OECD and Non-OECD Countries', OECD Economics Department Working Papers, 1200/2015.

Philippidis, G. and L.J. Hubbard (2001) 'The Economic Cost of the CAP Revisited', *Agricultural Economics* 25: 375-85.

Stewart-Brown, R. and F. Bungay (2012) 'Rules of Origin in EU Free Trade Agreements', Trade Policy Centre Research Paper.

Ugwumadu, J. (2013) 'Poland Takes Lion's Share of EU Funds', *Public Finance International*, 28 November, (http://www.publicfinanceinternational.org/news/2013/11/poland-takes-lion%E2%80%99s-share-eu-funds).

World Bank (2015) 'World Development Indicators', World Bank.