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**WHAT BREXIT MEANS FOR THE EASTERN CARIBBEAN:  
ISSUES AND CHALLENGES**



**EASTERN CARIBBEAN CENTRAL BANK**

**ST KITTS**

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## **Introduction**

When the United Kingdom (UK) voted to leave the European Union (coined Brexit) in the June 23 referendum, it opened the door to a period of uncertainty on the economic and financial stability of the European Union and the global economy.

Brexit has shaken equity and global financial markets and raised concerns whether this event could manifest into a global recession. However, markets have calmed and greater attention is being placed on the economic fundamentals/indicators of the G20 nations. Most analysts surmise that the most dramatic implications would be in the UK and Europe.

Given the historical trade and investment linkages to the UK, the countries of the Eastern Caribbean Currency Union (ECCU) are likely to be affected by any negative shocks to the UK, EU and by extension our major trading partner the United States of America (USA).

The ECCU countries are heavily dependent on tourism, with the UK and the USA accounting for 22.0 per cent and 37.0 per cent of the stay over tourists respectively. The countries are also heavily dependent on foreign direct investment from these source markets. Many of the ECCU countries depend on remittances as an important source of income.

As a result, any potential slowdown in the UK and/or the global economy due to Brexit raises questions about the extent of the spill over effects to the ECCU economies. This note will identify the channels of spill over and the likely impacts. Key policy issues to be examined are:

- What Brexit means for the UK and European Union?
- Brexit and the impact on the US and/or Global Economy;
- Brexit's impact on the ECCU member countries; and
- Interim policy responses to mitigate the uncertainties associated with Brexit.

## **1.0 What Brexit Means for the UK and European Union**

Following the June 23 victory of the Leave vote in the UK referendum, global financial markets went into a tail-spin with investors opting for safer assets in the USA – resulting in an increase in US treasury bonds and an appreciation of the US dollar, Swiss franc and Yen to the Sterling.

The immediate impact of Brexit was felt in financial markets, with the British pound sterling depreciating against the US dollar about 7.0 per cent. Estimating the consequences beyond the direct effects on financial markets development is a complex one; however, there is limited doubt that Brexit adds a period of uncertainty to the already anaemic growth performance of the UK and EU and low levels of investment. The only real question is the magnitude of the impact.

The UK is the 2<sup>nd</sup> largest member by GDP and holds the 3<sup>rd</sup> largest population relative to other EU members. As a result, a negative shock (recession) to the UK will be felt more acutely in the EU. Several analysts forecast a 50.0 per cent chance of a recession over the next 12 months against a backdrop of weaker business investment and consumer spending with only net exports partially offset by a weaker currency, with the EU likely to witness anaemic growth throughout to 2017.

Carmen Reinhart (2016) note that of significant interest is the precedent that Brexit set for other countries (or regions) to exit their respective economic and political arrangements – these sentiments have been raised in Scotland and Northern Ireland in the UK and the likely negative effects such will have on finance, trade and labour mobility. A protracted period of uncertainty in global capital markets is a likely outcome while the UK opts to renegotiate its trade, finance and immigration arrangements with the EU and external partners.

Most of the formal economic assessments on the UK exiting the EU (see Table 1) concluded that the UK would face a permanent net loss in the levels of output and incomes, whereas some studies argue that there would be net gains primarily on the elimination of the fiscal and regulatory cost of EU membership.

**Table 1: Summary of Formal Assessments of EU Exit**

<b>IMF United Kingdom Selected Issues (2016)</b>	Fall in GDP to 1.7 percent in 2017 under limited scenario; -0.8 per cent of GDP in 2017	Assesses the macroeconomic implications of the UK exiting the EU. They modelled illustrative scenarios of limited uncertainty assuming a convergence to a European economic area and an adverse scenario assuming less than smooth negotiations between the UK and the EU. Concluded a vote to leave the EU
<b>HM Government (2016c)</b>	-3.4 to -9.5 percent of GDP in long run (15 years).	Assesses impact of three scenarios: (i) the UK leaves the EU but retains EEA membership; (ii) the UK negotiates a bilateral agreement with the EU; and (iii) the UK defaults to WTO rules. Assumes decreases in
<b>HM Government (2016d)</b>	-3.6 to -6.0 percent in short run.	Assesses short-run effects on the economy in a “shock” scenario (associated with uncertainty at the same level as during the early 1990s recession) and a “severe shock” scenario (associated with uncertainty
<b>PwC (2016)</b>	-3 to -5.5% of GDP in medium term; -1.2 to -3.5% in long term.	Assesses impact of optimistic and pessimistic scenarios: (i) the UK negotiates an FTA and uncertainty is resolved within 5 years of referendum; (ii) the UK defaults to WTO rules. Assumes increases in trade barriers, lower immigration, and reduced

Key highlights on the potential impact of Brexit on the UK economy are:

- ***Increase in Uncertainty*** – surrounding the future relationship between the UK and the EU. Exiting the EU can take a minimum of two years following the activation of clause 50 of the EU agreement. This uncertainty can manifest itself in increased financial market and exchange rate volatility, high risk premia in credit and equity markets and the possible impact on business investments and confidence.
- ***Lower levels of Trade and Investment*** – in the absence of tariff free exports to EU member states, in a market which accounts for 45.0 per cent of UK exports of goods and services, any increase in tariffs and non-tariff barriers are likely to have knock-on effects on business investments and inward FDI in the UK.

- *Reduction in migration into the UK* – one of the rights/benefits of EU membership is free movement of labour, with EU member states accounting for 6.0 per cent of persons employed in the UK. Consequently, placing restrictions on immigration to the UK from the EU and vice versa have implications for the flow of skilled (and lower skilled) labour.

## **2.0 Brexit and the Impact on the US and Global Economy**

It is noteworthy to scan the potential impact of Brexit on the global economy and in particular the ECCU's major trading partner, the USA. Several agencies cite concerns that Brexit can induce global recessionary conditions. However, they concluded that the direct effects of Brexit to the US economy are limited to marginal, given that the US exports to the UK was only 4.0 per cent (\$56.0b) in 2015 and accounts for roughly 0.4 per cent of US GDP.

On the other hand, analysts cite that the potential for an indirect impact exist if over the medium term a recession in Britain induces slower growth throughout Europe and around the world further reducing US exports. The uncertainty surrounding Brexit can also affect business confidence, resulting in caution in expanding businesses operations or hiring additional labour.

Recent economic indicators point to a resilient US economy with first quarter GDP growing at 2.9 per cent at an annualised rate. However, the key downside risks to the US growth prospects are slower global growth which is already weighing on US output with net exports cutting into real GDP over the last year and a stronger US dollar which has the capacity to weaken the manufacturing sector while contributing to disinflation. Additional risk includes a downward shift in inflation expectations and a delay in rate hikes by the Federal Reserves (FED). Given the global uncertainty backdrop the FED is likely to hold interest rates steady for a longer period.

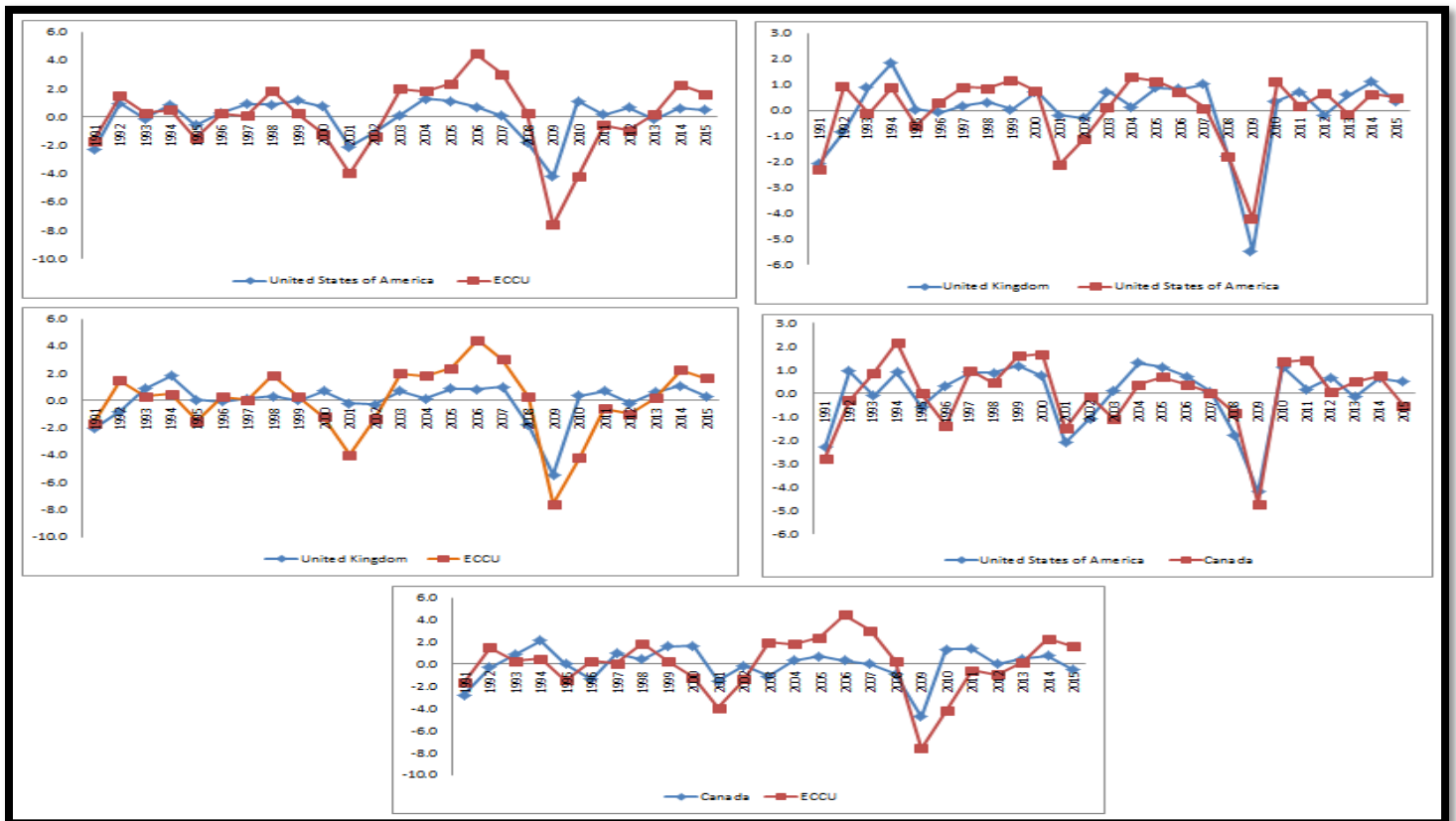
## **3.0 Brexit: Impact on the ECCU Member Countries**

The recent global financial and economic crisis raised questions about the extent of spill-over effects on the cyclical fluctuations to the ECCU member countries. Whereas several empirical studies exist on the US impact on Caribbean business cycles given the close proximity and strong trade linkages between the countries, there is limited research on the direct and indirect impact

of the United Kingdom (and/or Canada) despite sizeable trade and investment linkages. This section outlines the key macroeconomic channels – via which the UK departure from the EU can affect the Eastern Caribbean states. It also provides some stylised facts on each of the channels to facilitate a deepened insight. The focus is on the macroeconomic aspects.

Given the importance of the tourism sector to the economies of the ECCU, real GDP growth in the advanced economies is expected to exert a strong influence on business cycles in the region (Cashin 2004). As illustrated in Diagram 1 the co-movement between GDP growth in advanced economies and the ECCU is striking.

**Diagram 1: ECCU and Advanced Economies: Cyclical Components of Real GDP**



Source: ECCB Database and Authors' calculation

The correlation matrix presented in Table 2 shows strong evidence that the output gap of the ECCU co-moved with either the USA or Canada output gaps. The UK, USA and Canada also showed evidence of synchronised outputs gaps.

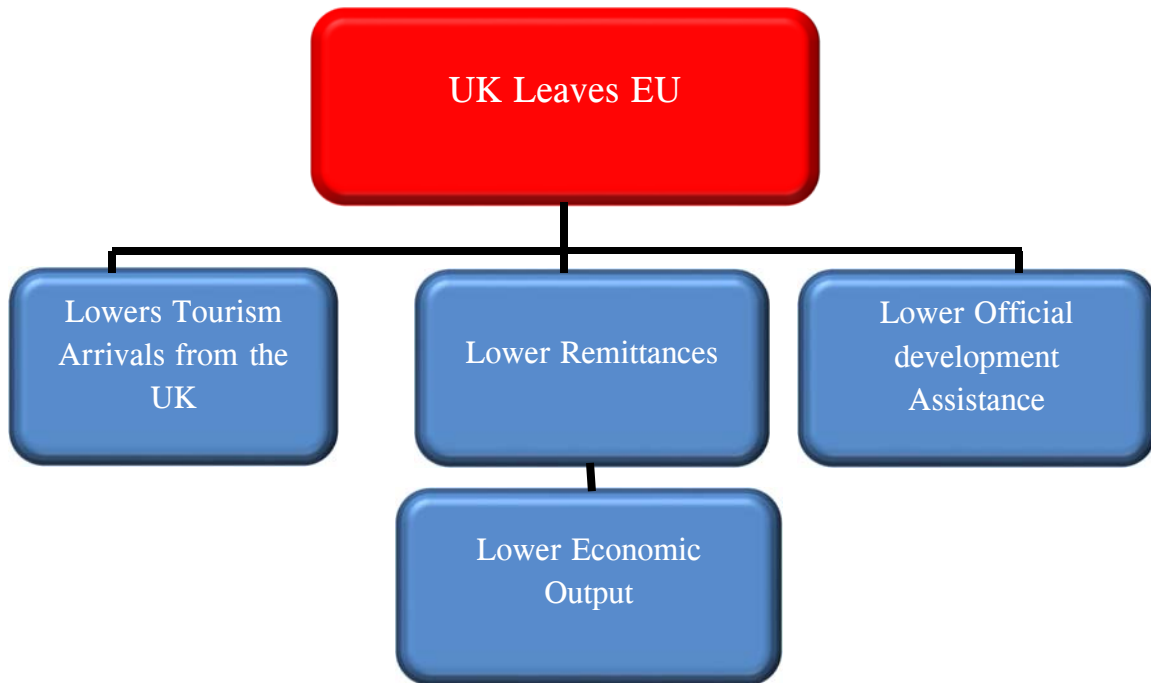
**Table 2 Correlation Statistics Real GDP Output Gap**

	<i>UK</i>	<i>USA</i>	<i>Canada</i>	<i>EU</i>	<i>ECCU</i>
<i>UK</i>	1.00				
<i>USA</i>	<b>0.64*</b>	1.00			
<i>Canada</i>	<b>0.69*</b>	<b>0.74*</b>	1.00		
<i>EU</i>	0.39	0.32	0.34	1.00	
<i>ECCU</i>	0.54	<b>0.66*</b>	<b>0.34*</b>	0.41	1.00

*Source: Author's calculations*

*Each series is the correlation between bivariate pairs of the output gap in percent. The bold cell with an asterisk indicates significance at the 5 per cent level.*

Five channels through which spill overs from the advanced economies are transmitted to the ECCU are trade, financial markets/FDI, remittances, official development assistance and macro-financial linkages.<sup>1</sup>



<sup>1</sup> There are several important trade and investment linkages between the advanced economies and the Eastern Caribbean. First, the UK, EU and Canada are major providers of overseas development assistance flows to the ECCU; the OECD countries are important emigrant destination for ECCU national and accounts for sizeable share of remittance flows into the ECCU; the UK, US and Canada account for a significant proportion of stayover tourists and visitor expenditure in the ECCU and, Canadian licensed banks are active in all ECCU countries.



### **A. Economic Impact of Brexit**

In its recent WEO (October 2016) the IMF revised downwards UK real GDP growth by 0.9 and 0.4 percentage points for 2017 and 2018, respectively contingent on a negative fallout from Brexit. Drawing on elasticity estimates from recent studies as well as Vector Auto regression (VAR) estimates derived in house, we estimate that the likely effect on economic growth would be felt through the tourism channel.

Based on the calculations from the methodology aforementioned, a 1.0 percent decrease in the UK GDP growth rate (a 1.0 percent decrease in UK per capita GDP) would lower GDP growth rate in ECCU countries by roughly **0.0 to 0.03** percentage points via the tourism channel. There are considerable cross-country differences, with Antigua and Barbuda and Montserrat among the most heavily exposed to developments in the UK<sup>2</sup>. However, these impacts are negligible and suggest that the effects of slower economic growth in the UK are likely to be transitory and small.

There are also second round impacts of Brexit on the ECCU economies, for example should there be a slowdown or contraction in local economic activity as a result of Brexit, this could potentially worsen the fiscal situation and weaken the financial sector performance, all else being equal. Lower economic activity is likely to worsen the fiscal situation through the revenue channel; if economic activity slows considerably then it is likely that revenues collected by the governments are likely to decrease leading to larger overall deficits or smaller overall surpluses. Concomitantly lower economic activity is likely to lead to lower profits in the commercial banking sector and higher non-performing loans.

### **B. Trade**

Across the ECCU member countries trade with the UK varies from agricultural exports, predominantly bananas from the Windward Islands and trade in tourism services. The UK is the second largest source (22.0 per cent) of stayover arrivals after the USA 37.0 per cent (discounting for inter-regional tourists' flows which account for 25 per cent on average).

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<sup>2</sup> Antigua and Barbuda due to its tourism link and Montserrat because of its reliance on ODA from the UK.

**Table 3: ECCU Sectoral Contribution to GDP (2000-2015)**

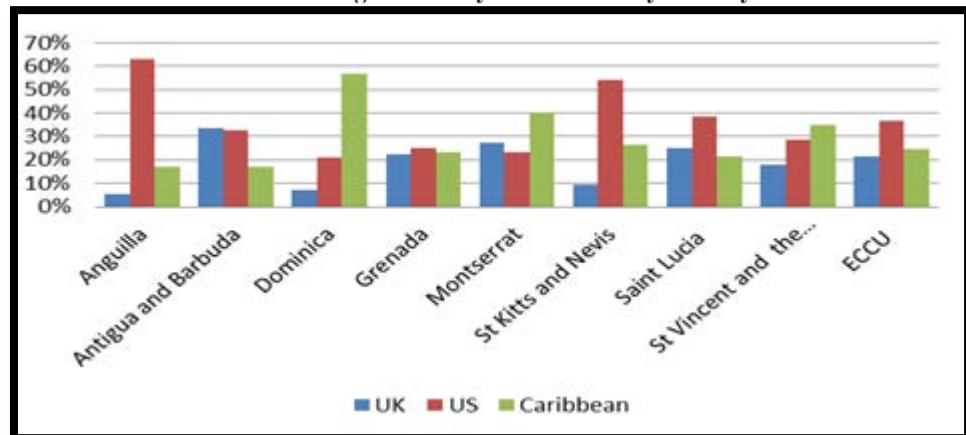
**CONTRIBUTION OF GROSS DOMESTIC PRODUCT BY ECONOMIC ACTIVITY (2000-2015)**

	Agriculture	Construction	Wholesale & Retail Trade	Hotels & Restaurants	Transport, Storage and Communications	Financial Intermediation	Public Administration
Anguilla	0.4	10.7	8.0	22.5	10.4	9.9	8.7
Antigua and Barbuda	0.9	11.0	16.0	13.7	13.4	8.8	9.0
Dominica	13.4	4.6	13.0	2.0	14.0	7.0	8.9
Grenada	4.2	9.7	8.3	5.2	14.2	7.3	7.3
Montserrat	1.1	9.9	7.1	2.2	9.3	10.2	39.3
St Kitts and Nevis	1.1	17.3	8.1	6.3	11.6	10.4	9.0
Saint Lucia	3.1	7.9	8.2	13.2	19.5	6.8	6.8
St Vincent and the Grenadines	6.6	8.7	14.7	2.9	14.5	6.7	9.3
ECCU	3.7	10.1	11.2	9.3	14.6	8.0	8.5

Source: ECCB Database and Authors' calculation

As illustrated in Table 3, the agricultural sector in the Windward Islands contributes 6.8 per cent to their GDP, linked in part to banana exports to the UK. Consequently, any significant changes in the export price and/or volume of exports will have implications for the agriculture exporting territories in the Currency Union.

**Diagram 2: Stayover Arrivals by Country**



Source: ECCB Database and Authors' calculation

Relatedly, Table 3 provides insight into the tourism dependent nature of several of the ECCU member countries, particularly

Anguilla, Antigua and Barbuda and Saint Lucia. Equally Diagram 2 highlights the significance of UK stayover tourists in Antigua and Barbuda, Grenada, Montserrat and Saint Lucia. Therefore, events such as Brexit, which affects the health of the UK economy and the value of its currency, have direct implications for trade in tourism services with the ECCU member countries.

At a country specific level, Brexit poses risk to Anguilla and Dutch St Maarten and French St Martin trade and bilateral relations such as immigration, law enforcement, access for tourists

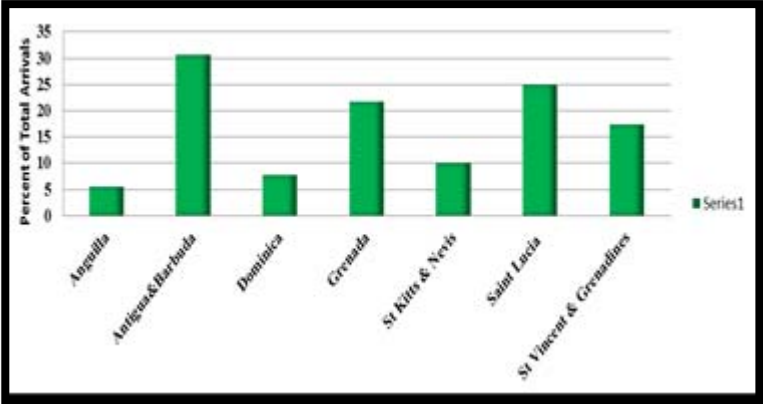
and Anguillans entering their ports. Princess Juliana International Airport in St Maarten is one of the busiest hubs in the Leeward Islands with daily flights from major cities in North America, Europe and Latin America. Consequently, the island is a transshipment point and hub creating linkages with nearby islands such as Saba, St Eustatius, Anguilla and Nevis. Forging new relations post-Brexit may result in reduced seaport access (volume of excursionists) to and from Anguilla for tourists and local businesses.

**C. Tourism Impact of Brexit**

UK tourism accounts for a sizeable share of overall tourism in much of the Eastern Caribbean Countries (ECCU) (see Diagram 3).

In 2015, aggregate (stay-over) tourist arrivals from the UK to the ECCU was roughly 2.6m, 17.0 per cent of total arrivals in the ECCU. In particular, they are sizable in Antigua and Barbuda (31.0 per cent) and Saint Lucia (26.0 per cent) (see Diagram 3). Moreover, they

Diagram 3: UK Contribution to Total Visitor Arrivals



Source: ECCB Database and Authors' calculation

exhibit a positive correlation with real GDP growth in a few countries (e.g., Anguilla, Antigua & Barbuda, Dominica, and Grenada—Diagram 6 in Appendix).

Applying elasticities from previous studies, however, suggests that the impact of the moderate projected weakening in UK economy in the near term on growth in the Caribbean is expected to be somewhat negligible. However, given the recent weakness in economic activity any further dampening in economic activity is likely to exacerbate local economic problems.

A 1.0 percentage point increase in UK unemployment rate (1.0 percent decline in UK per capita GDP) would lower total arrivals by approximately **0.1 to 0.7** percentage points. For example, arrivals could be lower by **0.6** percent in Antigua and Barbuda, and by 0.7 percent in Anguilla. The responses in Grenada and Saint Lucia are negligible however the impact on GDP is

significant implying there are other channels through which lower UK GDP growth is affecting these countries. We speculate this could be through the trade channel.

#### **D. Financial Markets**

UK monetary conditions can influence economic developments in the ECCU via the foreign direct investment channel. Increased financial market volatility in the UK and by extension the USA can either cause a delay in business investments and foreign investment by UK (and/or US) corporations targeting the Caribbean.

Foreign direct investment to the ECCU countries has been significant, averaging about 13.2 per cent of GDP over the period 2000-2015. A significant portion of foreign investment in the ECCU is concentrated in the tourism sector. Anecdotal evidence from UNCTAD FDI database showed that while a significant proportion of foreign investment flows comes from the USA; the UK, EU and Asia have also made sizeable contributions. Antigua and Barbuda, Grenada, Saint Lucia and St Vincent and the Grenadines were the islands which attracted sizeable FDI from the UK suggestive of their trade linkages in the tourism and agricultural sectors. As a result, a tightening of domestic financial conditions in the UK and the USA can serve as a direct transmission mechanism to the ECCU.

#### **E. Remittances**

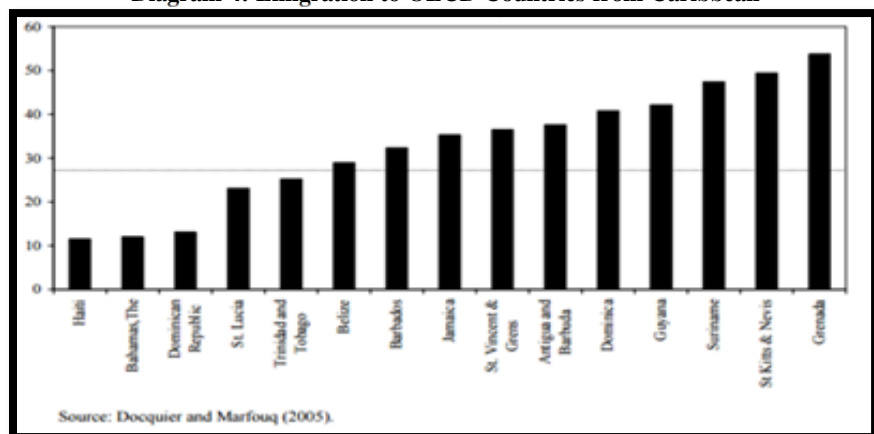
Several of the ECCU member countries are among the world's top-twenty countries in terms of highest rates of migration (see Diagram 4) and a large proportion of these migrants live in the USA, UK and OECD countries.<sup>3</sup>

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<sup>3</sup> Mishra (2006) Emigration and Brain Drain: Evidence from the Caribbean

Consequently, remittances could provide a strong link between the UK and ECCU economies. The significance of remittance flows to the ECCU is critical for domestic consumption and investment amidst evidence of high unemployment rates and marginal real GDP growth. For

**Diagram 4: Emigration to OECD Countries from Caribbean**



example, remittance flows to Dominica amounts to 5.0 per cent of GDP (approximate to its average FDI flows of 7.0 per cent of GDP), whereas the average in the ECCU accounted for 4.0 per cent of GDP over the period 2000-2015.

#### F. Official Development Assistance (ODA)

Although ODA to the ECCU countries has declined over the last 15-20 years it still accounts for a significant amount of foreign inflows.

The UK and EU have played a key role in concessional and grant financing for member governments. Table 4 provides a snippet of the concessional loans and grant flows to the ECCU in 2010-2014. More importantly, Montserrat and Anguilla, two UK overseas territories

ECCU member Countries	2010	2011	2012	2013	2014
Anguilla			11.64	13.26	11.74
Antigua and Barbuda	32.0				
Dominica	31.5	11.6		18.6	3.5
Grenada	38.1	4.9			19.8
Montserrat	51.2	39.0	56.6	81.6	31.3
St Kitts and Nevis	15.3	39.5	52.4	38.9	30.5
Saint Lucia					
St Vincent and the Grenadines					
<b>ECCU</b>	<b>168.1</b>	<b>95.0</b>	<b>120.7</b>	<b>152.4</b>	<b>96.9</b>

Source: ECCB Database and Authors' calculation

(OTs) and the other ECCU members have benefited from the European Development Fund (EDF) and access to the European Investment Bank facilities. An analysis of Montserrat fiscal data for the period 2000-2015 shows that on average 61.3 per cent (\$85.4m) of its total revenue are grant inflows. Relatedly under the EDF, allocations averaged €40m to the Caribbean OTs per programme period. For example, Montserrat received €15.7m as general budget support under the 10<sup>th</sup> EDF (for period 2008-13) and €18.4m for cooperation in the period 2014-2020

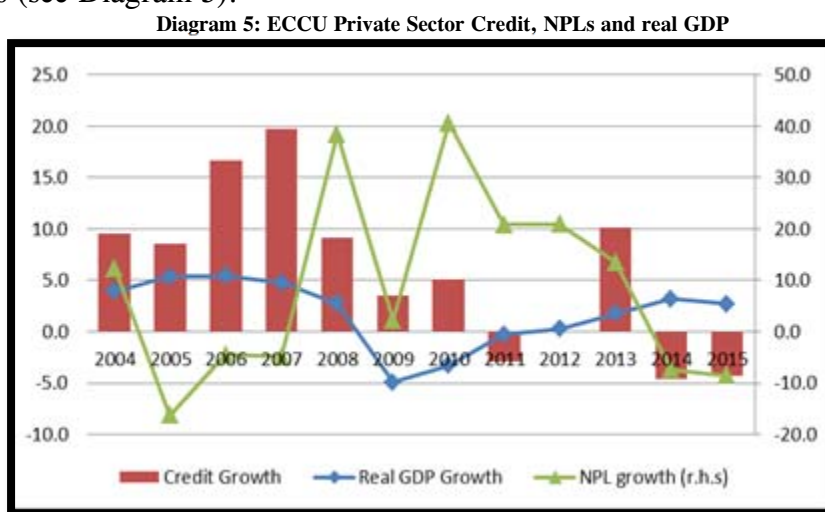
under the 11<sup>th</sup> EDF. Anguilla was allocated €11.7m during the 10<sup>th</sup> EDF and €14.0m under the 11<sup>th</sup> EDF.

Equally, there is uncertainty surrounding the impact of Brexit on the UK September 2015 announcement of a £300m infrastructure programme (UK-Caribbean Infrastructure Fund) to fund infrastructure such as roads, bridges and ports across the Caribbean via the CDB and DFID.

### Macro-Financial Linkages

The recent global crisis highlighted the importance of macro-financial linkages in the ECCU. Research by Riley (2014) has shown that shocks to economic activity can have quantitatively adverse effects on the financial system, which then give rise to second-round effects on the real economy through reduced credit availability. He found that both macro-economic and bank-specific variables contributed to the increase in NPLs in the ECCU, such that higher rates of growth induce a decline in NPLs (see Diagram 5).

Over the period 2004 to 2008 private sector credit in the ECCU grew by over 63.7 per cent against a backdrop of an average annual 5.0 per cent growth in non-performing loans (NPLs) and 4.4 percent real GDP growth. Conversely, private sector credit grew by 7.0 percent in the period 2009-



Source: ECCB Database and Authors' calculation

2015 with 11.8 per cent average annual growth in NPLs and an average negative growth of 0.1 per cent in real GDP.

Given the fragility of the domestic commercial banks owing to the impact of the global financial and economic crisis, it is imperative to pay key attention to the effects that the macro-economic conditions can have on the financial systems. Riley (2014) found that the countries with the largest reaction to real sector shocks on the financial system were Anguilla and Montserrat.

Consequently, if a negative GDP shock was to materialise in the ECCU due to the transmission channels identified earlier the domestic banking sector would be adversely affected.

#### **4.0 Concluding Remarks**

The uncertainties surrounding Brexit make it difficult to quantify the economic effect (both direct and indirect). However, the consensus across studies and preliminary analysis is that Brexit will have a negative effect on economic activity in the UK. However, these effects are expected to be small and transitory. Notwithstanding authorities should continue to monitor developments in the UK economy. This note attempted to examine the various channels through which a negative shock to the United Kingdom can transmit to the global economy and the Eastern Caribbean in particular.

Following the UK's decision to exit the EU, there would be the need to negotiate the terms of its withdrawal and a new relationship with the EU. The long-run effects on UK output and incomes are estimated to be negative and significant. Any spillovers to the Eastern Caribbean are likely to be felt over the medium term (2-3 years) via the trade, financial markets/FDI, remittances and ODA channels.

The ECCU is highly vulnerable to external shocks such as climatic changes, shocks to oil prices and external demand by trading partners. It is recommended that estimates to the extent of the exposure/sensitive to these shocks be done at the country level. Additionally, a detailed assessment of the dynamic effects of developments in the advanced economies on selected ECCU member country macroeconomic variables should be undertaken; And work on the trade and investment linkages within the ECCU and its major trading partners should be incorporated in country-surveillance.

A key recommendation for policymakers within the ECCU is to target stronger domestic fundamentals and policy framework to improve resilience of the ECCU member countries; and enhance efforts to achieve fiscal space and lower public debt, strengthen the domestic financial systems and diversify the export structures of the economies.

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## Appendix

**Table 5: Summary Statistics of Real GDP Growth (1990-2015)**

	Mean	Median	Minimum	Maximum	Std. Dev (%)	Skewness	Observations
United Kingdom	2.0	2.6	-4.3	3.9	1.8	-2.3	25
United States of America	2.4	2.6	-2.8	4.6	1.7	-1.3	25
Canada	2.3	2.6	-3.0	5.1	1.9	-1.2	25
European Union	1.7	2.0	-4.4	3.5	1.6	-2.2	25
ECCU	2.2	2.9	-6.3	7.0	2.9	-1.2	25
Anguilla	3.2	4.0	-20.3	18.5	7.9	-0.8	25
Antigua and Barbuda	2.4	3.6	-12.8	12.6	5.3	-1.0	25
Dominica	1.8	2.0	-3.1	6.9	2.6	0.1	25
Grenada	2.6	2.1	-6.8	12.5	4.6	0.3	25
Montserrat	-2.9	-0.3	-30.4	5.7	9.3	-1.9	25
St Kitts and Nevis	3.1	4.5	-5.8	8.9	3.7	-0.9	25
Saint Lucia	1.7	0.6	-3.8	7.9	3.1	0.7	25
St Vincent and the Grenadines	2.6	1.7	-3.4	7.5	2.9	0.1	25

Source: ECCB database, author's calculation

The summary statistics for real GDP growth rates in the ECCU compared to its major trading partners is presented above. The mean growth rate ranges from -2.9 per cent in Montserrat to a high 3.2 per cent in Anguilla. The volatility of growth rates are higher for the Caribbean than the advanced economies in the sample, corroborating earlier studies (Cashin 2004, Sun and Samuel 2009) that the greater output volatility among the ECCU member countries is due to the greater incidence of exogenous shocks affecting output. Output in ECCU member countries averages about 1.6 times as variable as output in the developed countries (UK, US, Canada and EU).

**Diagram 6: UK Contribution to Total Visitor Arrivals**

Correlation Between UK Arrivals Growth Rate & UK GDP Growth	
Anguilla	69.5% 0.00
Antigua and Barbuda	61.0% 0.00
Dominica	68.8% 0.00
Grenada	33.2% 0.15
Saint Lucia	39.4% 0.09
St Kitts and Nevis	41.1% 0.07
St Vincent and the Grenadines	52.4% 0.02

**Diagram 7: Anguilla Response to Brexit Shock**  
**Anguilla Response to Brexit**

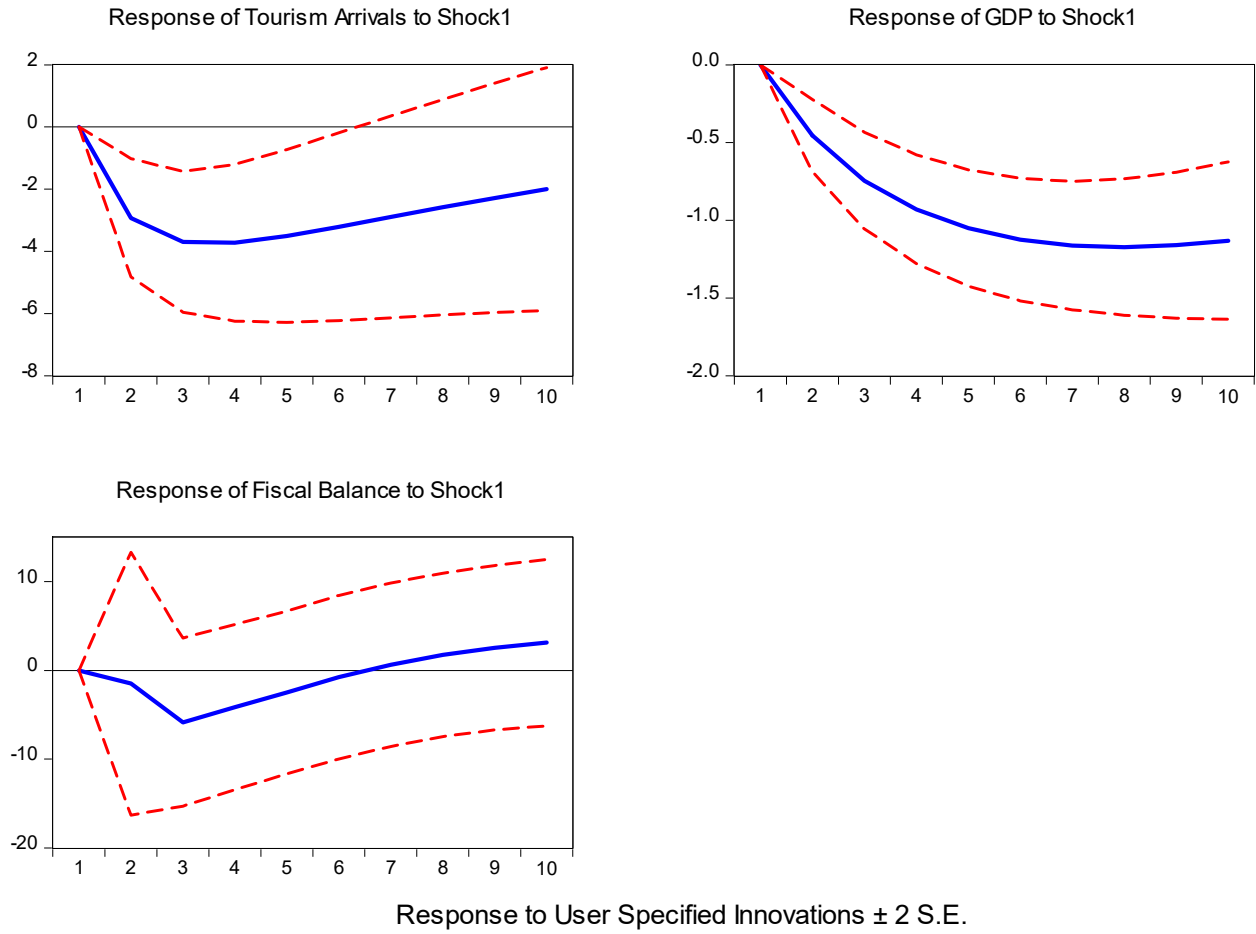
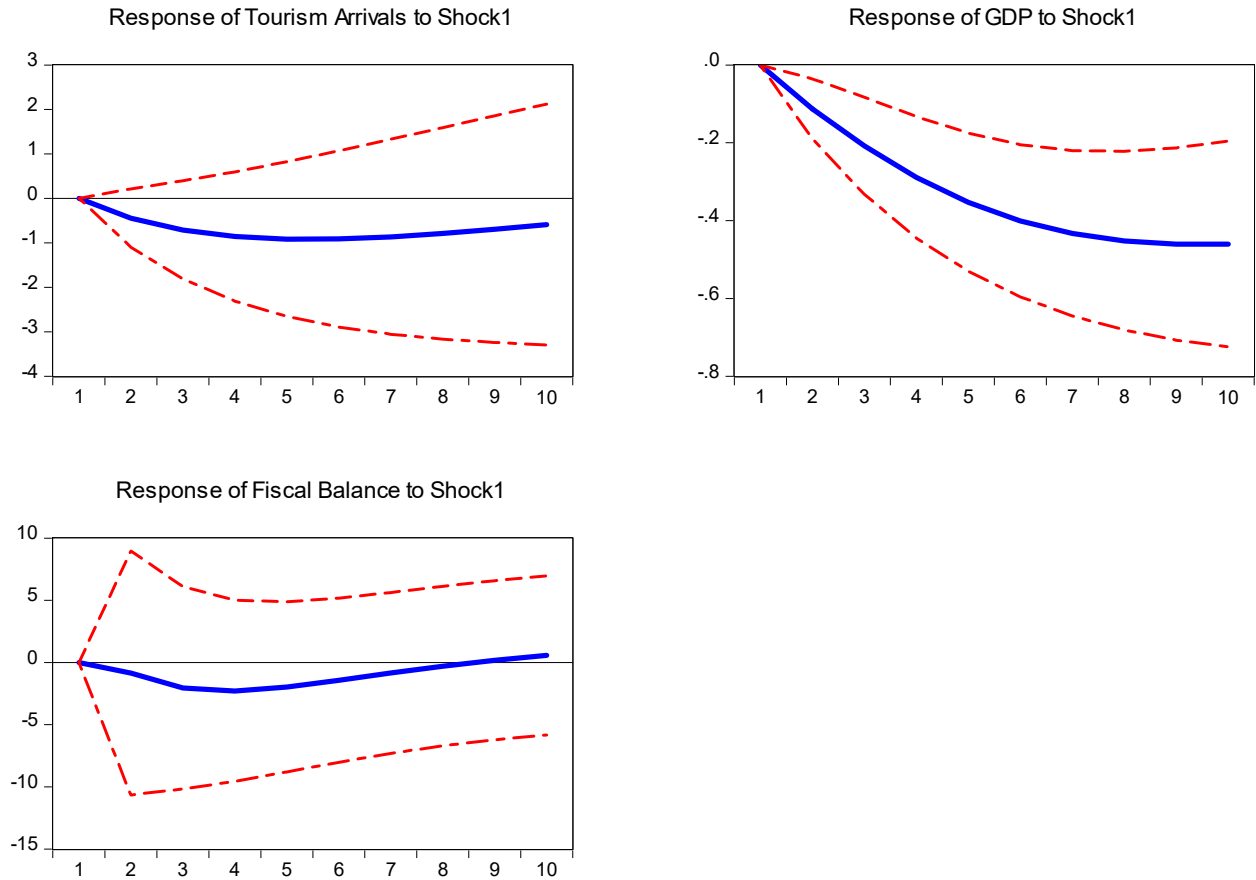


Diagram 8: Antigua & Barbuda's Response to Brexit Shock

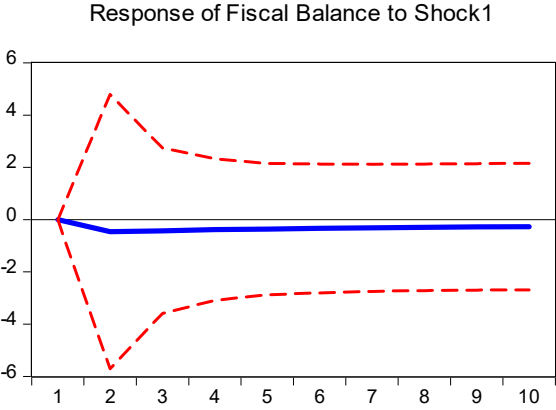
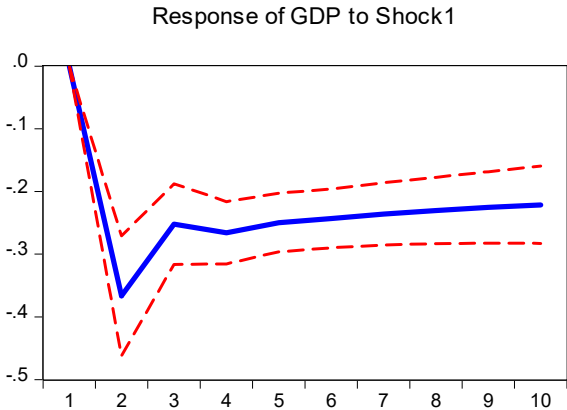
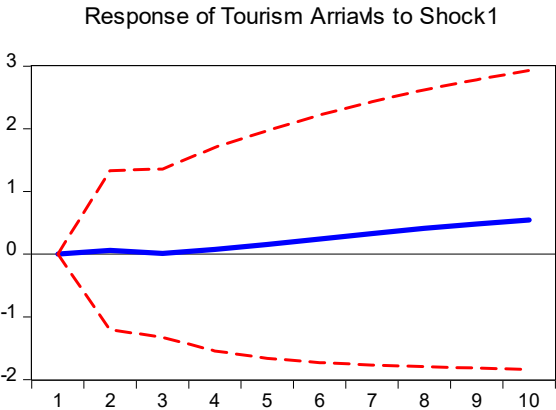
Antigua and Barbuda Response to Brexit



Response to User Specified Innovations  $\pm 2$  S.E.

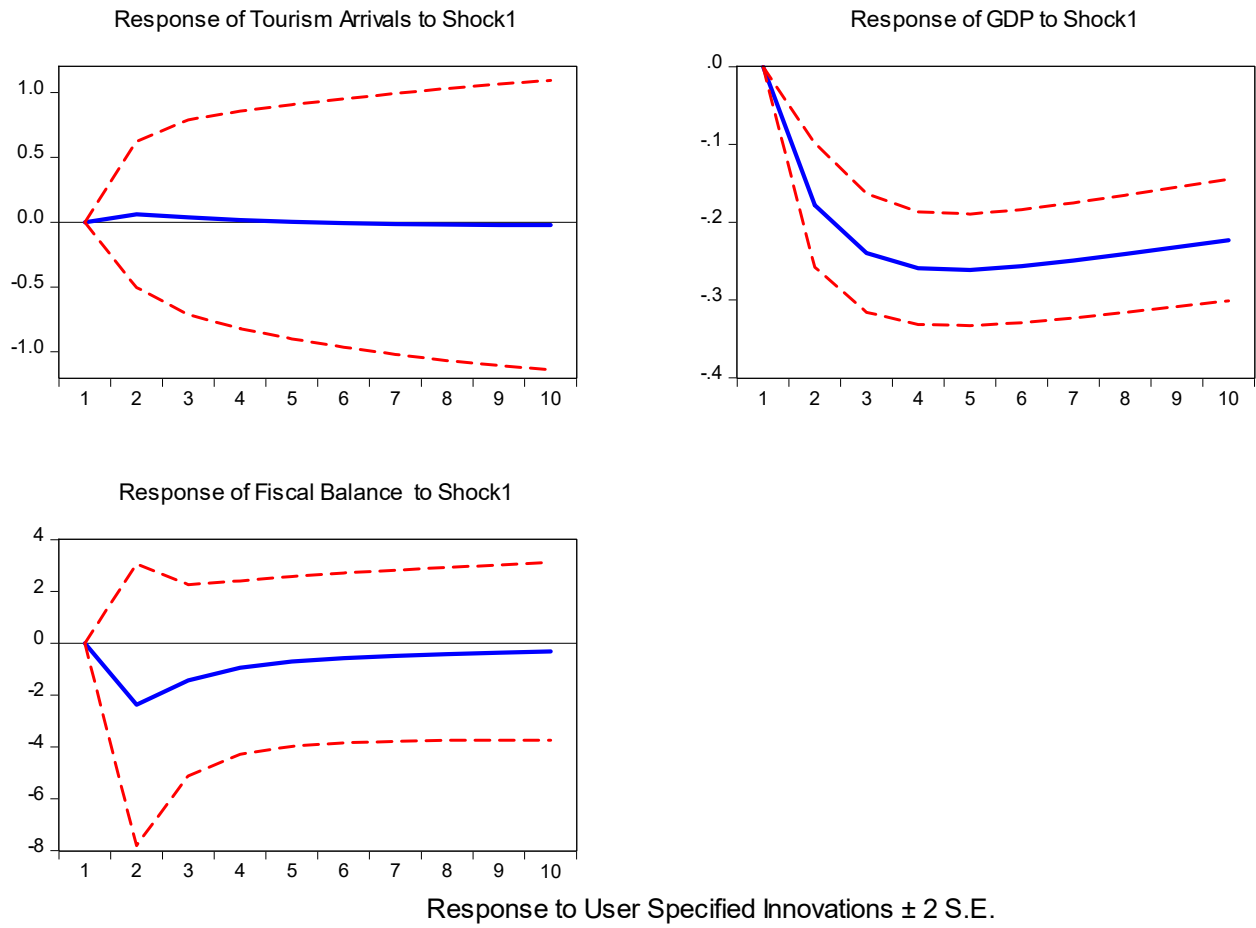
**Diagram 9: Grenada's Response to Brexit Shock**

**Grenada Response to Brexit Shock**



Response to User Specified Innovations  $\pm$  2 S.E.

**Diagram 10: Saint Lucia's Response to Brexit Shock**  
**Saint Lucia Response to Brexit Shock**



**Diagram 11: St Kitts & Nevis' Response to Brexit Shock**  
**St Kitts & Nevis Response to Brexit Shock**

