



## **INTERNATIONAL TRADE WORKING PAPER**

# **Commonwealth Greenfield Investment: Stylised Facts and the Effect of Commonwealth Membership**

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### Abstract

Using bilateral data in a structural gravity model, this study examines the effect of Commonwealth membership on greenfield investment. Estimates suggest that Commonwealth membership is associated with 19 per cent more greenfield investment though this effect is found to be only weakly significant. Meanwhile, the presence of common legal origins is found to be a statistically significant determinant of both intra- and extra-Commonwealth greenfield investment, along with membership of goods trade agreements and common colonial antecedents for the latter; geography has a negative bearing on both. No single factor consistently explains the Commonwealth's greenfield investment into the rest of the world, though the effect of geography and bilateral investment treaties is negative.

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## Acronyms

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BIT	Bilateral Investment Treaty
CEPII	Centre d'études prospectives et d'informations internationales
DRC	Democratic Republic of Congo
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GTA	Goods Trade Agreement
IT	Information Technology
M&A	Mergers and Acquisitions
OEM	Original Equipment Manufacturing
PPML	Poisson Pseudo-Maximum Likelihood
ROW	Rest of the World
STA	Services Trade Agreement
TA	Trade Agreement
UAE	United Arab Emirates
UK	United Kingdom
UNCTAD	United Nations Conference for Trade and Development
USA	United States of America

## Executive summary

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This study assembles bilateral data on announced greenfield investment for 199 source and destination countries over 2003–2018 and uses both descriptive statistics and more sophisticated econometric techniques to understand the nature and structure of intra- and extra-Commonwealth investment, its determinants and the effect of Commonwealth membership.

Most existing work has documented the ‘Commonwealth effect’ of bilateral goods and services trade, not of investment. What does deal with investment has not incorporated recent advancements in the estimation of structural gravity models, leading to biased estimates. The analysis in this paper is an improvement on both fronts.

Both inward and outward stock of Commonwealth foreign direct investment (FDI) rose consistently over 2000–2018 in value terms, from US\$1.2 trillion to US\$6.6 trillion, and from US\$1.6 trillion to US\$5.4 trillion, respectively, though, as a share of global FDI stock, the former shows an upward trend and the latter a downward trend on the whole. The UK, Singapore, Canada, Australia and India were the top recipients of inward FDI among Commonwealth countries in 2018; South Africa replaces India in these five countries as a major investor, followed by Cyprus and India.

Meanwhile, cumulative intra-Commonwealth greenfield investment increased from US\$250 billion over 2003–2008 to US\$263 billion in the post-crisis five years but then fell to US\$195 billion over 2014–2018. Cumulative extra-Commonwealth greenfield investment was significantly larger in value at US\$737 billion over 2003–2008 but it declined after the

crisis to US\$707 billion during the next five years; it then increased to go beyond the pre-crisis level to US\$801 billion over 2014–2018.

India, the UK, Canada, Australia and Singapore are the top five recipients of both intra- and extra-Commonwealth greenfield investment, accounting for at least 75 per cent of the totals in each case. As with both merchandise and services trade, the smaller Commonwealth countries are found to be more reliant on the Commonwealth as both a source of and a destination for their greenfield investment.

In terms of sectoral composition, real estate; coal, oil and gas; and metals are found to dominate both inward (both intra- and extra-) and outward Commonwealth greenfield investment. While there is significant overlap in the sectoral distribution of intra- and extra-Commonwealth greenfield investment, automotive original equipment manufacturing and transportation attract more investment from outside the Commonwealth.

Finally, structural gravity estimates suggest Commonwealth membership is associated with 19 per cent more greenfield investment, although this effect is found to be only weakly significant. Meanwhile, the presence of common legal origins is found to be a statistically significant determinant of both intra- and extra-Commonwealth greenfield investment, along with membership of goods trade agreements and common colonial antecedents for the latter; geography has a negative bearing on both. No single factor consistently explains the Commonwealth’s greenfield investment in the rest of the world, though the effect of geography and bilateral investment treaties is negative.

# 1. Introduction

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With one quarter of the world's governments, one third of the world's population and one fifth of global trade, the Commonwealth is a diverse community of nations sharing an inheritance of a common language, institutions and culture. It brings together a unique range of countries – rich and poor; large and small; island, landlocked and coastal. The association boasts the 'Commonwealth culture' of amicable partnership, with activities conducted in an atmosphere of co-operation and with a shared sense of community, reflecting members' common traditions and shared values; this culture has inspired a high level of engagement among Commonwealth members. The unique mix of characteristics and strengths permits the Commonwealth to serve as a catalyst for genuine engagement, understanding and progress at the international level.

The Commonwealth also has a commendable track record of north–south and south–south collaboration, which provides a sound basis for co-operation targeted specifically at expanding and building inter-country and inter-regional trading links. The clear desire for and spirit of co-operation among members is reflected in numerous Commonwealth-sponsored initiatives in both regional and multilateral forums. These strengths place the organisation in a privileged position to provide support, through the joint action of its members, to further the attainment of its goals of expanded trade and improved welfare.

The Commonwealth trade advantage has been documented in empirical literature and explored in detail in Commonwealth Trade Reviews (2015, 2018). These reports find that trade flows (in goods and services) are, on average, around 20 per cent higher between the Commonwealth countries, and foreign direct investment (FDI) flows are around 10 per cent higher. Various reasons have been cited for this advantage; for instance, these countries share historical linkages, similar rules and regulations, common languages and a large diaspora network, among others.

Against this background, this study assembles bilateral data on greenfield investment for 199 source and destination countries over 2003–2018 and uses both descriptive statistics

and more sophisticated econometric techniques to understand the nature and structure of intra- and extra-Commonwealth investment, its determinants and the effect of Commonwealth membership. The data are sourced from fDi Markets: a private database on announced greenfield investment projects maintained by the Financial Times.

Most existing work has documented the 'Commonwealth effect' of bilateral goods and services trade, not of investment. What does deal with investment has not incorporated recent advancements in the estimation of structural gravity models (see, e.g., Piermartini and Yotov, 2016), leading to biased estimates. The analysis in this paper is an improvement on both fronts; the estimation strategy deploys the Poisson Pseudo-Maximum Likelihood (PPML; Silva and Tenreyro, 2006) with three-way fixed effects, which accounts for sample zeroes in investment data and heteroskedasticity-related concerns in estimation, besides controlling for unobserved heterogeneity, multilateral resistance and endogeneity-induced biases.

Descriptive statistics reveal that both inward and outward stock of Commonwealth FDI rose consistently over 2000–2018 in value terms, from US\$1.2 trillion to US\$6.6 trillion, and from US\$1.6 trillion to US\$5.4 trillion, respectively, although, as a share of global FDI stock, the former shows an upward trend and the latter a downward trend on the whole. The UK, Singapore, Canada, Australia and India are the top recipients of inward FDI among Commonwealth countries; South Africa replaces India in these five countries as a major investor, followed by Cyprus and India.

Analysis of fDi Markets data shows that cumulative intra-Commonwealth greenfield investment increased from US\$250 billion over 2003–2008 to US\$263 billion in the post-crisis five years but then fell to US\$195 billion over 2014–2018. Cumulative extra-Commonwealth greenfield investment was significantly larger in value at US\$737 billion over 2003–2008 but it declined after the crisis to US\$707 billion during the next five years; it then increased to go beyond the pre-crisis level to US\$801 billion over 2014–2018. India, the UK, Canada, Australia and Singapore

are the top five recipients of both intra- and extra-Commonwealth greenfield investment, accounting for at least 75 per cent of the totals in each case. As is true for both merchandise and services trade, the smaller Commonwealth countries are found to be more reliant on the Commonwealth as both a source of and a destination for their greenfield investment.

In terms of sectoral composition, real estate; coal, oil and gas; and metals are found to dominate both inward (both intra- and extra-) and outward Commonwealth greenfield investment. While there is significant overlap in the sectoral distribution of intra- and extra-Commonwealth greenfield investment, automotive original equipment manufacturing (OEM) and transportation attract more investment from outside the Commonwealth.

Finally, structural gravity estimates suggest that Commonwealth membership is associated with 19 per cent more greenfield investment, although this effect is found to be only weakly significant. Meanwhile, the presence of common legal origins is found to be a statistically significant determinant of both intra- and extra-Commonwealth greenfield

investment, along with membership of goods trade agreements and common colonial antecedents for the latter; geography has a negative bearing on both. No single factor consistently explains the Commonwealth's greenfield investment in the rest of the world, though the effect of geography and bilateral investment treaties is negative.

The remainder of the paper is structured as follows. Section 2 presents aggregate and regional trends of Commonwealth inward and outward FDI using United Nations Conference for Trade and Development (UNCTAD) data. Sections 3 and 4 present an analysis of Commonwealth inward (both intra- and extra-) and outward greenfield investment over time, respectively, including by Commonwealth region and distributions by source and destination. Section 5 looks at the sectoral distribution of these investments. Section 6 estimates a structural gravity model to examine the effect of Commonwealth membership on bilateral greenfield investment, including across regions and different time periods. Section 7 studies the determinants of Commonwealth inward and outward greenfield investment. Section 8 concludes.

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## 2. Inward and outward Commonwealth investment: Aggregate and regional trends

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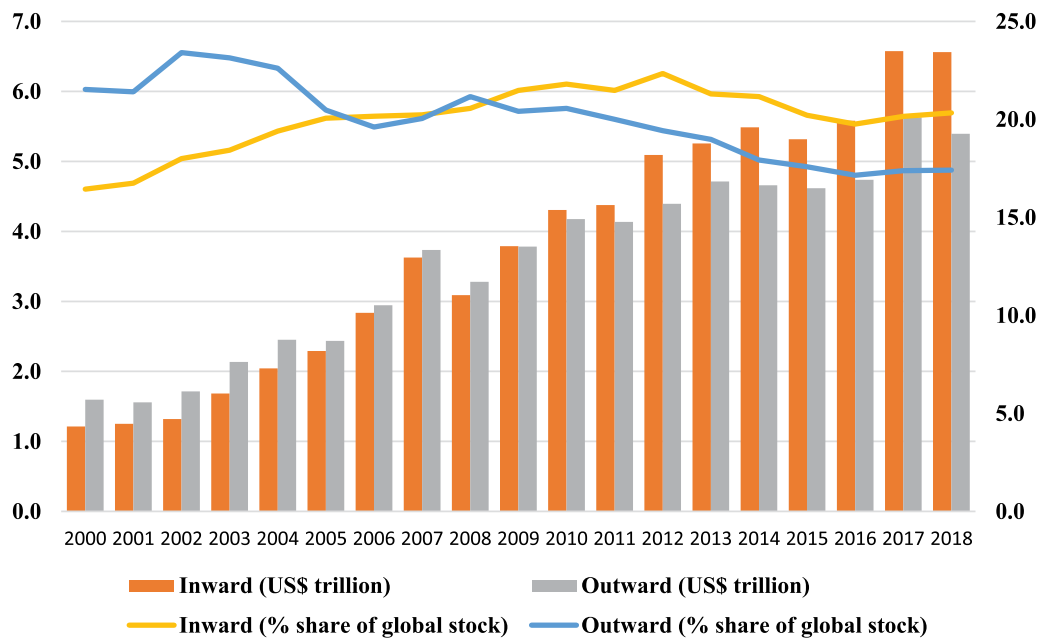
According to UNCTAD data, the total stock of inward FDI in Commonwealth member countries in the year 2018 was US\$6.6 trillion, which was 20.3 percent of global FDI stock of US\$32.3 trillion in that year. In the same year, the total stock of outward Commonwealth member country FDI was US\$5.4 trillion, or 17.4 percent of the global stock of outward FDI.

Inward FDI stock in the Commonwealth has more than quintupled in value, from US\$1.2 trillion in 2000 to US\$6.6 trillion in 2018. Outward FDI stock has more than tripled, from US\$1.6 trillion in 2000 to US\$5.4 trillion in 2018 (see Figure 1). On the basis of exponential growth rates over 2010–2018, the stock on Commonwealth inward FDI is projected to grow to US\$9.4 trillion in 2025 and US\$12.2 trillion in 2030. That of Commonwealth outward FDI is projected to increase to US\$6.9 and US\$8.2 trillion (Figure 2).

Commonwealth FDI stocks show far more fluctuation as a share of global FDI stocks, both inward and outward, though the former shows an upward trend and the latter a downward trend on the whole. The share of Commonwealth inward FDI stock increased steadily up to the global financial crisis in 2008 before plateauing thereafter in a wide V shape over the next eight years. Meanwhile, the share of Commonwealth outward FDI stock fluctuated in the pre-crisis years and fell consistently from then until 2016. Both the inward and outward shares have shown an upward trend in the past two years. As a share of global FDI stocks, Commonwealth inward FDI stock peaked in 2012 at 22.3 per cent, whereas Commonwealth outward FDI stock observed a peak in 2002 at 23.4 per cent (see Figure 1).

Figure 3 shows the evolution of the distribution of inward and outward FDI stock by

Figure 1. Stock of Commonwealth inward and outward FDI (value and % share)

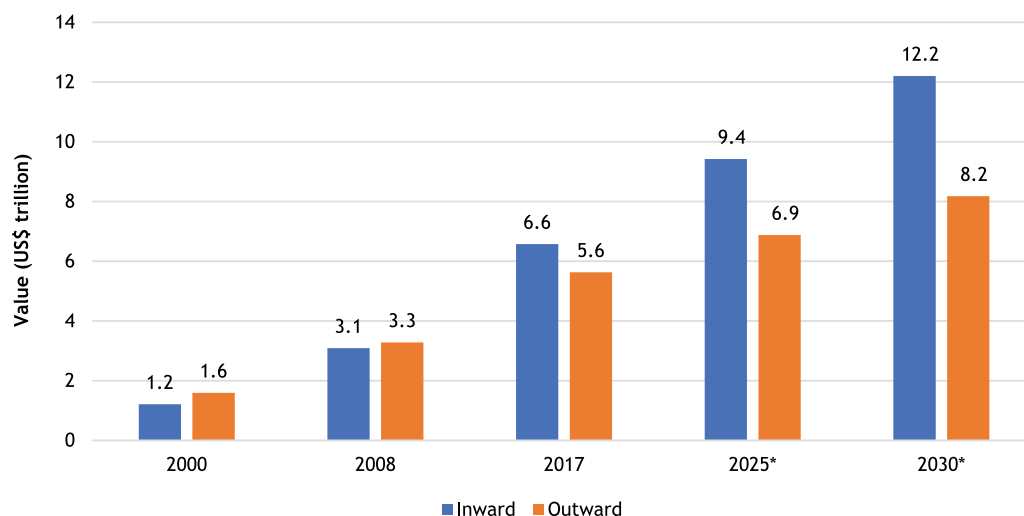


Source: UNCTAD (2018)

Commonwealth member country in four time periods (2000, 2008, 2012 and 2018). The UK, Canada, Singapore and Australia were the top recipients of inward FDI among Commonwealth member countries in all the four time periods, although Singapore has become more important than Australia recently. The UK's outward FDI stock exceeded its inward FDI stock in 2000, 2008 and 2012, and, although the situation reversed in the years succeeding the financial crisis, it still maintained its position as

the dominant investor in the Commonwealth. Meanwhile, Singapore's inward and outward FDI stock have grown steadily over the years, and for all the four time periods its inward FDI stock was higher than its outward FDI stock. Australia's FDI stock followed a similar pattern to that of Singapore. In 2018, South Africa displaced India as a major investor, though India has also become a major investment destination. Interestingly, Canada and South Africa are the only two Commonwealth

Figure 2. Projected stock of Commonwealth inward and outward FDI (US\$ trillion)

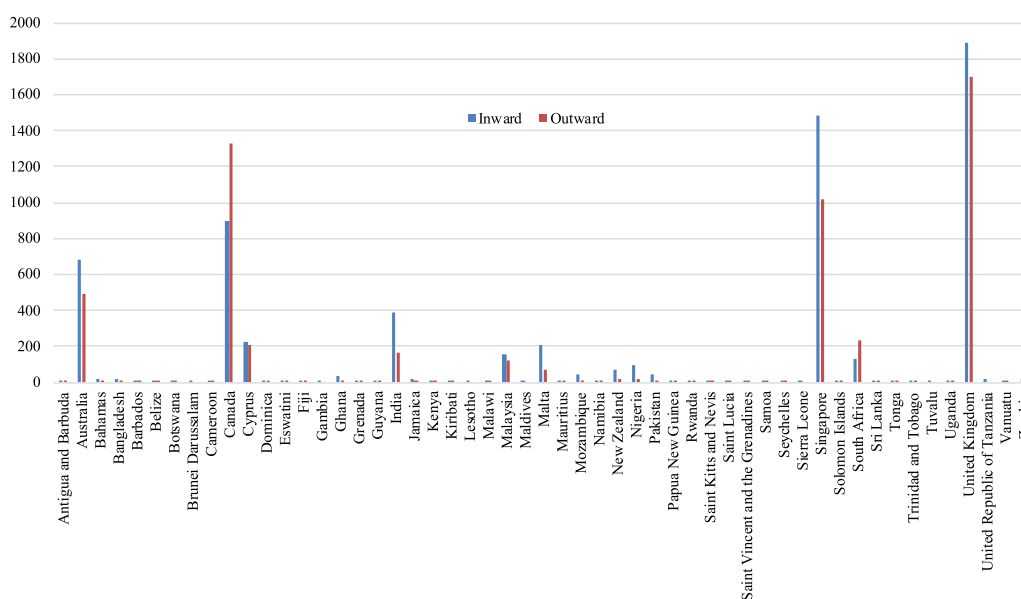


Note: \* Denotes projections based on exponential growth rates over 2010–2018.

Source: UNCTAD (2018); own calculations



Figure 3. Distributions of inward and outward FDI stock by Commonwealth member country (2018, US\$ billion)



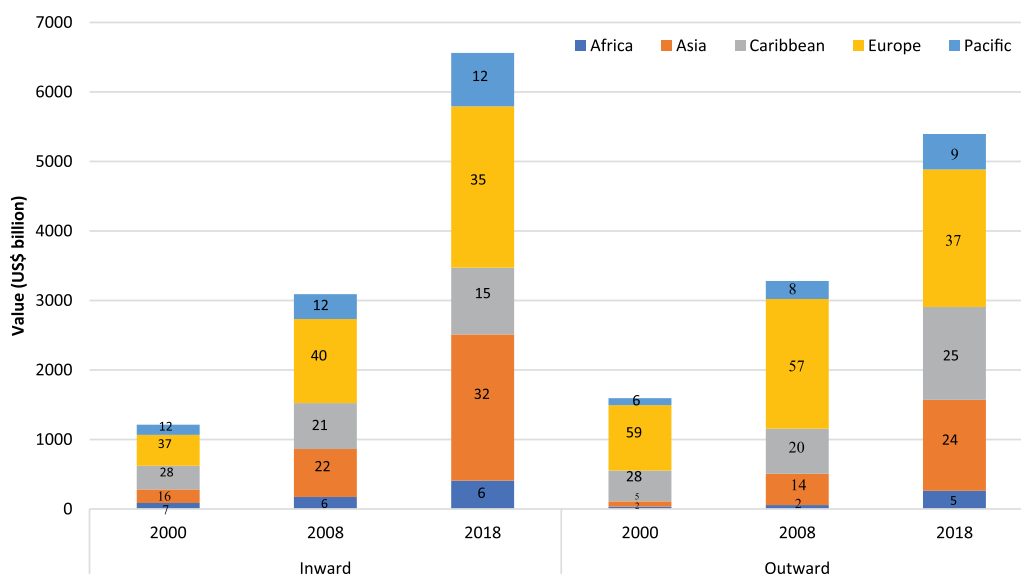
Source: UNCTAD (2018)

member countries whose outward FDI stock in 2018 exceeded their inward FDI stock in 2018, though this was also true of the UK in the earlier time periods.

Figure 4 presents a breakdown of the stock of inward and outward FDI in and by Commonwealth member country over time by geographical region<sup>1</sup> following the classification in Shingal and Razzaque (2015). Commonwealth Europe is the most important destination for inward FDI, accounting for more than a third of total inward FDI in the

Commonwealth. Commonwealth Asia and the Commonwealth Caribbean each accounted for over a fifth of the total just before the global financial crisis. The share of Commonwealth Asia in total inward FDI in the Commonwealth had risen to nearly a third in 2018, whereas that of the Commonwealth Caribbean had fallen to 15 percent. In fact, Commonwealth Asia has witnessed the most rapid growth in inward FDI among Commonwealth regions over time, with values increasing two-and-a-half times over 2000–2008 and then twofold over 2008–2018.

Figure 4. Inward and outward FDI over time by Commonwealth region (value and % share in total)



Source: UNCTAD; own calculations

Commonwealth Europe is also the most important source of outward FDI among Commonwealth regions, accounting for more than half of total outward FDI from the Commonwealth in 2008 and well over a third in 2018. The Commonwealth Caribbean accounted for 28 percent of total outward FDI from the Commonwealth in 2000 but its share fell to a fifth before the crisis before rising to a quarter in 2018. Meanwhile, Commonwealth Asia has witnessed the most rapid growth in outward FDI among Commonwealth regions over time, with values quintupling over 2000–2008 and then nearly doubling over 2008–2018; this is reflected in the region's growing share in Commonwealth total outward FDI from 5 percent in 2000 to 14 percent in 2008 and 24 percent in 2018.

Unfortunately, UNCTAD FDI data do not provide a bilateral breakdown of inward or outward investment beyond 2012 or bilateral information at the sector level for any time period, to enable more granular analysis. We therefore consider an alternative source of FDI data: fDi Markets, which is an online database on cross-border greenfield investment maintained

by the Financial Times. These data cover 199 source and destination countries and 39 goods and services sectors over 2003–2018, enabling both bilateral and sectoral analysis of inward and outward investment, in and from the Commonwealth. However, one limitation of fDi Markets is that it does not identify whether an announced greenfield investment project has been implemented, which means that the reported data may overestimate the value of actual greenfield investment.

Another limitation of fDi Markets is that it covers only greenfield investment. According to UNCTAD (2018), announced greenfield investment (US\$720 billion) accounted for 50 percent of total global FDI (US\$1.43 trillion) in 2017, with the value of net cross-border mergers and acquisitions (M&A; US\$694 billion) making up for another 48.5 percent. The analysis thus follows thus does not include M&A activity, which is likely to influence some of the patterns observed. To this extent, the analysis may not be representative of the complete FDI picture in the Commonwealth, but this is another data limitation constraint that we cannot circumvent in this paper.

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### 3. Inward greenfield investment into the Commonwealth

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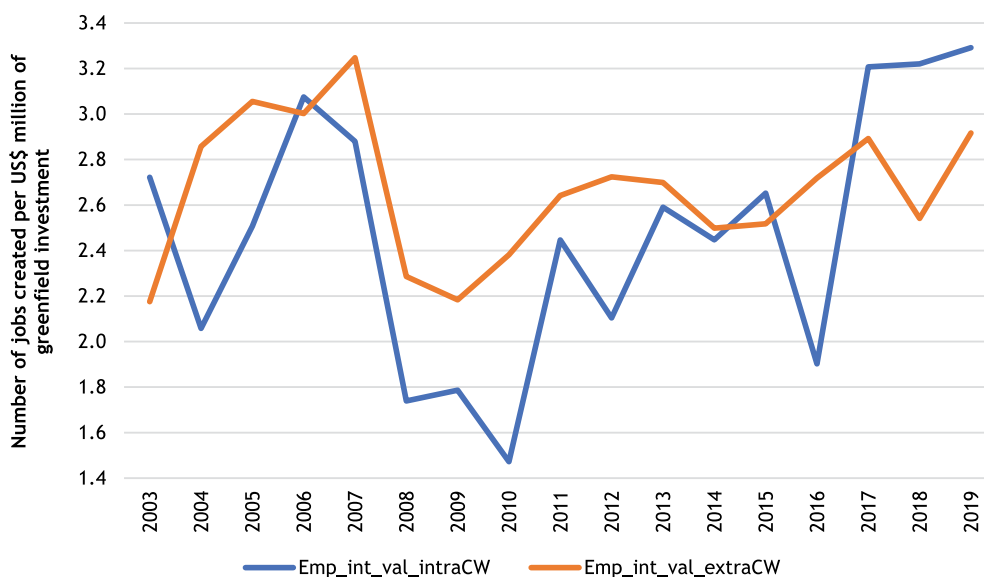
Table 1 reports cumulative greenfield investment into Commonwealth countries by source. The table shows that cumulative intra-Commonwealth greenfield investment was close to US\$250 billion over 2003–2008; it increased after the crisis to US\$263 billion during the next five years but fell after that to US\$195 billion over 2014–2018. Meanwhile, cumulative greenfield investment into the Commonwealth from the rest of the world (ROW) was significantly larger in value at US\$737 billion over 2003–2008 but it declined after the crisis to US\$707 billion during the next five years; it increased after that to go beyond the pre-crisis level to US\$801 billion over 2014–2018.

The employment intensity of announced projects by value (the number of jobs created per US\$ million of investment) has increased over time for both intra- and extra-CW greenfield

investment. The intensity was comparatively higher for extra-Commonwealth investment until 2016 but the situation has reversed in the past three years (see Figure 5). In contrast, the employment intensity of announced projects by number (the number of jobs created per number of investment projects) has fallen significantly over time for both intra- and extra-CW greenfield investment. The intensity was slightly higher for intra-Commonwealth investment before the crisis but the situation has reversed since then (see Figure 6).

With the exception of Cameroon, Kenya and New Zealand, there is a complete overlap in the top Commonwealth recipients of cumulative greenfield investment from both within and outside the Commonwealth over 2003–2018 (top recipients are defined as those receiving at least US\$10 billion of greenfield investment

Figure 5. Employment intensity of announced projects by value for intra- and extra-CW greenfield investment



Source: fDi Markets; own calculations

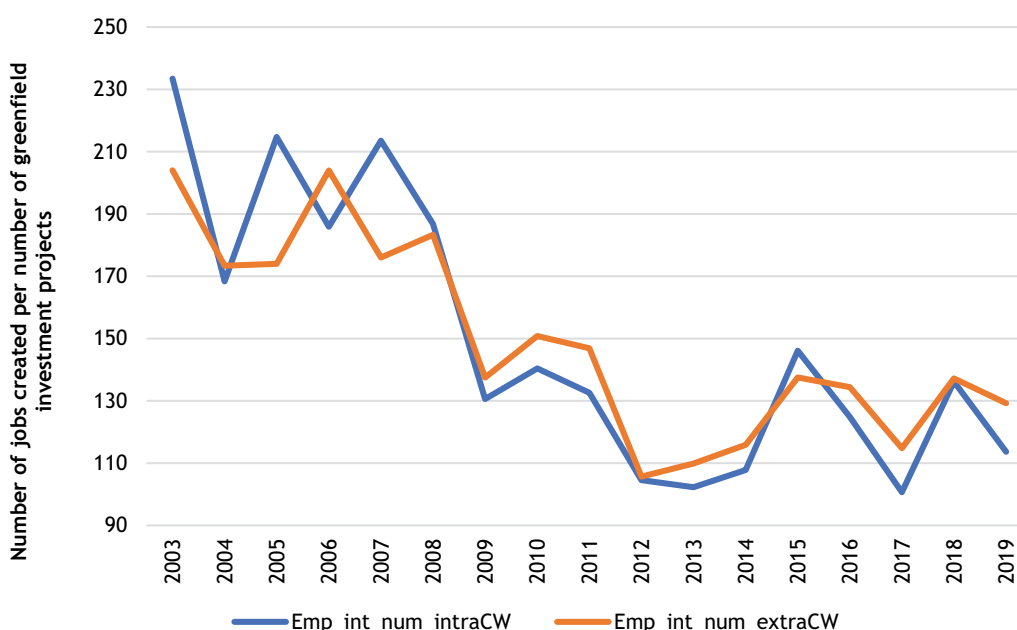
cumulatively over 2003–2018). However, most of the top recipients get a major share of their greenfield investment from outside the Commonwealth (the Commonwealth’s share is consistently above 50 percent for only 6 of the 16 top recipients).

India was the topmost destination for cumulative greenfield investment from both within (US\$136 billion) and outside (US\$521 billion) the Commonwealth over 2003–2018 but

the Commonwealth accounts for only a fifth of India’s total cumulative inward greenfield investment over time.

As it true for both merchandise and services trade, the smaller Commonwealth countries are also more reliant on the Commonwealth as a source of their greenfield investment; the Commonwealth’s share in their total investment is well above 50 percent and in some cases (The Gambia, Lesotho, Solomon Islands, St Vincent

Figure 6. Employment intensity of announced projects by number for intra- and extra-CW greenfield investment



Source: fDi Markets; own calculations

and the Grenadines), the Commonwealth accounts for all inward greenfield investment. In fact, some small countries, like Barbados, The Gambia, Namibia, Trinidad and Tobago and Saint Vincent and the Grenadines, have become more reliant on the Commonwealth as a source of their greenfield investment over the years, while other small countries, like The Bahamas, Bangladesh, Botswana, Cameroon, Fiji, Ghana, Grenada, Kenya, Lesotho, Mozambique, Nigeria, Papua New Guinea, Rwanda, Saint Lucia, Seychelles, Sri Lanka, Tanzania, Uganda and Zambia, have become less reliant on the Commonwealth as a source of their greenfield investment.

Looking next at cumulative greenfield investment into Commonwealth regions by source (Figure 7), it is observed that Commonwealth Asia and Africa together accounted for 68 percent of cumulative intra-Commonwealth greenfield investment over 2003–2008. However, their combined share in the total declined to 61.4 percent over 2009–2013, with Commonwealth Africa becoming the more dominant destination, while the share of the Commonwealth Pacific in total cumulative investment increased from 15 to 20 percent. Over the last five-year period (2014–2018), Commonwealth Asia has regained its position as the major destination of intra-Commonwealth greenfield investment and its position has become even more dominant, with a 45 percent share in total cumulative

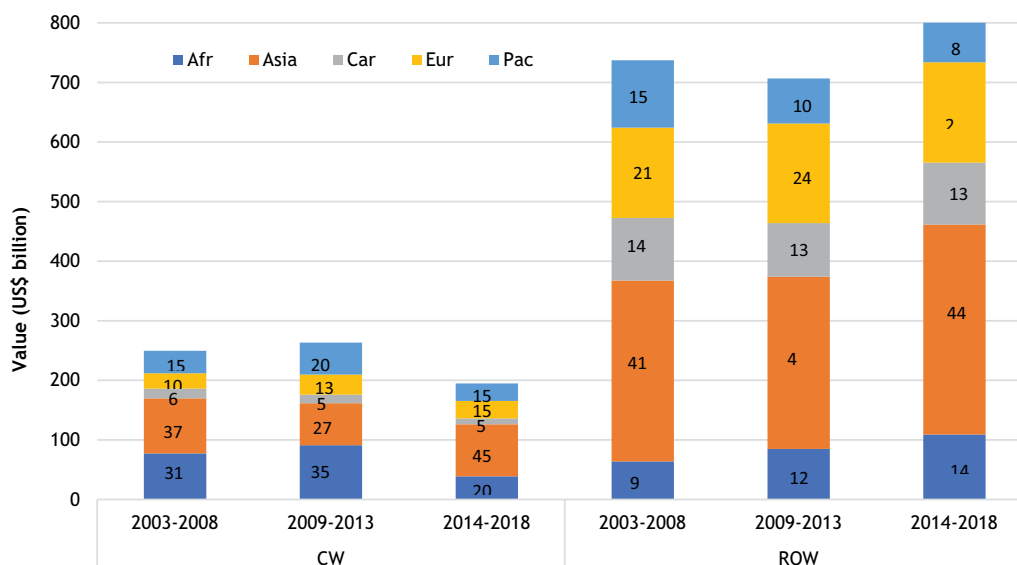
investment; the share of Commonwealth Africa has declined appreciably to 20 percent.

Commonwealth regional analysis of greenfield investment originating in ROW is somewhat different. While Asia continues to be the most important destination over time, accounting for more than 40 percent of total cumulative greenfield investment originating in ROW in each five-year period, Commonwealth Europe comes in next, with a share exceeding 20 percent. Meanwhile, Commonwealth Africa and the Commonwealth Pacific have attracted much less investment from ROW in percentage terms than they have done from within the Commonwealth, especially during the past decade, while the Commonwealth Caribbean has been far more successful in obtaining investment from ROW in each of the three five-year periods.

*Annexes 1 and 2 show the distribution of intra- and extra-Commonwealth greenfield investment by source over time by Commonwealth region.*

The tables in Annex 1 reveal that the distribution of intra-Commonwealth greenfield investment by source is extremely concentrated irrespective of geographical region. Barring Commonwealth Africa, the top 10 sources of intra-Commonwealth greenfield investment account for 99 percent of total cumulative inward greenfield investment across Commonwealth regions over time; even for Commonwealth Africa, this share declined only from 99.6

Figure 7. Cumulative greenfield investment into Commonwealth regions by source (value and % share in total)



Source: fDi Markets; own calculations

percent over 2003–2008 to 96.3 percent over 2014–2018. Moreover, with the exception of the Commonwealth Caribbean, greenfield investment attained peak levels in the post-crisis years across all regions before witnessing a significant decline in the last five-year period (2014–2018). The UK, Canada, India and Australia have been the major sources of intra-Commonwealth greenfield investment over time.

Intra-Commonwealth greenfield investment in Commonwealth Africa peaked in the five years after the crisis at US\$91 billion before plummeting to US\$39 billion during the last five-year period. Canada and the UK have been among the top sources of cumulative greenfield investment in Commonwealth Africa, though Zambia was the most important source of cumulative greenfield investment in this region over the last five-year period.

Intra-Commonwealth greenfield investment in Commonwealth Asia peaked in the five years after the crisis at US\$104 billion before plummeting to US\$87 billion during the last five-year period. The UK has been the top source of inward greenfield investment in Commonwealth Asia, though its share in cumulative inward greenfield investment in this region declined from 43.4 percent during 2003–2008 to 38.2 percent over 2014–2018.

Intra-Commonwealth greenfield investment in the Commonwealth Caribbean witnessed a peak level of US\$16 billion in the five years preceding the crisis before falling to US\$14 billion in the post-crisis years and plummeting to US\$9.8 billion during the last five-year period. The UK has been the top source of inward greenfield investment in the Commonwealth Caribbean and its share in cumulative inward greenfield investment in this region rose from 38.5 percent during 2003–2008 to 64.3 percent over 2014–2018. Australia and India have been the other major investors in this region.

Intra-Commonwealth greenfield investment in Commonwealth Europe peaked in the five years after the crisis at US\$34 billion before falling to US\$29 billion during the last five-year period. Australia has been the top source of inward greenfield investment in Commonwealth Europe, though its share in cumulative inward greenfield investment in this region declined from 45 percent during 2003–2008 to 32 percent over 2014–2018. Canada and India have been the other major

investors in this region; Malaysia, again, was the top source for this region in the five years after the crisis.

Intra-Commonwealth greenfield investment in the Commonwealth Pacific peaked in the five years after the crisis at US\$54 billion before plummeting to US\$29 billion during the last five-year period. The UK has been the top source of inward greenfield investment in this region, though its share in cumulative inward greenfield investment declined from 55.5 percent during 2003–2008 to 34.3 percent over 2014–2018. Canada and India have been the other major investors in this region; interestingly, Malaysia replaced the USA as the top source in the five years after the crisis.

The tables in Annex 2 show that the distribution of extra-Commonwealth cumulative inward greenfield investment by source is more geographically diversified than that of intra-Commonwealth greenfield investment. Moreover, across regions, this distribution is less concentrated in Commonwealth Africa, Asia and Europe relative to that in the Commonwealth Pacific and the Commonwealth Caribbean.

Cumulative inward greenfield investment in Commonwealth Africa from ROW has been rising steadily, from US\$64 billion in the five years preceding the crisis to US\$85 billion in the post-crisis years and to US\$109 billion during the last five-year period. While the USA was the largest extra-Commonwealth greenfield investor in Commonwealth Africa over the first 10 years of analysis, it was put into second position by China in the last five-year period. France has been the other major source of greenfield investment in this region, especially during the first 10 years.

Cumulative inward greenfield investment in Commonwealth Asia from ROW was high, at US\$304 billion, in the five years preceding the crisis, before declining to US\$289 billion in the post-crisis years – but picking up again to exceed pre-crisis levels at US\$352 billion during the last five-year period. The USA has been the largest extra-Commonwealth greenfield investor in Commonwealth Asia over time, followed by Japan and Germany, though the share of the USA went down from 40 to 26.5 percent over the period of analysis and China became the second largest investor in this region during the last five-year period.

Table 1. Cumulative greenfield investment into Commonwealth countries by source (US\$ million)

Destination	Source														
	ISO code	CW					ROW					Share of CW in total (%)			
		2003-2008	2009-2013	2014-2018	2003-2008	2009-2013	2014-2018	2003-2008	2009-2013	2014-2018	2003-2008	2009-2013	2014-2018	2014-2018	
Antigua	ATG			620.6		68.8			2000.0			0.0			23.7
Australia	AUS	30878.7	44163.4	26063.9	104522.3	67213.4	60486.5	22.8	39.7	30.1					
Bahamas	BHS	30.9	534.3	254.6	758.7	64.2	123.3	3.9	89.3	67.4					
Bangladesh	BGD	2207.0	4149.0	9272.7	1915.9	2622.5	9346.9	53.5	61.3	49.8					
Barbados	BRB		285.8	551.9	2.4	95.1	151.4	0.0	75.0	78.5					
Belize	BLZ		2.8			361.6	247.3		0.8	0.0					
Botswana	BWA	2850.1	963.5	241.3	1447.4	486.8	1211.0	66.3	66.4	16.6					
Brunei	BRN	269.5	281.5	246.4	871.4	6543.5	255.6	23.6	4.1	49.1					
Cameroon	CMR	3384.1	2665.8	516.7	1228.4	8331.0	2630.2	73.4	24.2	16.4					
Canada	CAN	13451.5	12055.3	6839.7	98770.5	85719.4	97547.6	12.0	12.3	6.6					
Cyprus	CYP	233.1	208.4	142.1	1623.0	1458.1	1440.9	12.6	12.5	9.0					
Dominica	DMA	63.7			2.8		76.6	95.8		0.0					
Eswatini	SWZ	85.9	481.6		378.9	124.6	74.4	18.5	79.4	0.0					
Fiji	FJI	546.4	163.5	138.5	236.4	380.0	632.4	69.8	30.1	18.0					
Gambia	GMB	105.3	215.5	123.1	196.8	248.1		34.9	46.5	100.0					
Ghana	GHA	6246.6	12284.0	1665.5	2890.5	6838.7	14922.0	68.4	64.2	10.0					
Grenada	GRD		30.0	0.8	3.7	10.2	14.6	0.0	74.5	5.2					
Guyana	GUY	368.1	49.8	26.7	1479.2	506.3	61.1	19.9	9.0	30.4					
India	IND	53226.0	35384.0	47535.6	174406.6	159501.7	187457.1	23.4	18.2	20.2					
Jamaica	JAM	4.6	367.6	303.7	1593.2	1572.0	2748.1	0.3	19.0	10.0					
Kenya	KEN	1292.3	4946.0	2023.9	1140.9	4148.0	8189.9	53.1	54.4	19.8					
Lesotho	LSO	111.2	598.2	242.4	11.8		75.5	90.4	100.0	76.3					
Malawi	MWI	11.0	1242.3	46.2	11.0	572.0	825.5	50.0	68.5	5.3					
Malaysia	MYS	7571.7	7701.1	11291.4	47988.9	48714.1	59263.6	13.6	13.7	16.0					
Maldives	MDV	549.2	1665.3	522.2	907.1	2071.3	576.4	37.7	44.6	47.5					
Malta	MLT	518.3	305.5	217.7	1173.8	1058.8	1328.4	30.6	22.4	14.1					

Mauritius	MUS	598.9	1036.0	544.8	1237.6	725.8	496.3	32.6	58.8	52.3
Mozambique	MOZ	5049.7	11734.9	7093.3	4341.0	10981.3	20891.0	53.8	51.7	25.3
Namibia	NAM	2427.4	2835.2	938.8	1475.2	1980.1	219.4	62.2	58.9	81.1
New Zealand	NZL	3338.1	2811.7	2750.1	4966.6	2748.3	4860.2	40.2	50.6	36.1
Nigeria	NGA	25981.4	16676.1	15050.6	30051.7	16917.4	23239.3	46.4	49.6	39.3
Pakistan	PAK	9100.0	2176.5	3038.6	21520.1	13710.6	36123.0	29.7	13.7	7.8
Papua New Guinea	PNG	2968.0	6220.3	327.5	2779.6	5204.7	1299.0	51.6	54.4	20.1
Rwanda	RWA	96.4	2682.9	705.1	468.1	1524.9	2271.1	17.1	63.8	23.7
Saint Kitts & Nevis	KNA					49.4	75.7		0.0	0.0
Saint Vincent and the Grenadines	VCT			30.9	4.2			0.0		100.0
Samoa	WSM			51.6	500.0		359.8	0.0		12.5
Seychelles	SYC	203.3	285.6	46.6	262.1	48.6	227.2	43.7	85.5	17.0
Sierra Leone	SLE	1892.4	1188.6		28.4	239.9	1254.3	98.5	83.2	0.0
Singapore	SGP	17379.8	13921.1	11783.8	54601.1	51001.5	54513.9	24.1	21.4	17.8
Solomon Islands	SLB		322.1		34.8		33.8	0.0	100.0	0.0
South Africa	ZAF	13228.4	12294.5	5476.2	15115.1	23280.0	18476.8	46.7	34.6	22.9
Sri Lanka	LKA	2083.4	5326.6	3512.7	1456.7	4960.6	4781.1	58.9	51.8	42.4
St Lucia	LCA		231.0	447.2	96.5	145.2	578.8	0.0	61.4	43.6
Tanzania	TZA	5967.9	5537.7	1242.2	775.4	2562.8	4461.2	88.5	68.4	21.8
Trinidad & Tobago	TTO	2305.2	733.9	704.3	2364.7	1368.4	263.0	49.4	34.9	72.8
Uganda	UGA	2639.2	9439.7	986.4	1273.1	1633.9	4922.1	67.5	85.2	16.7
United Kingdom	GBR	25105.6	33233.9	29041.8	148563.6	164672.3	165469.8	14.5	16.8	14.9
Vanuatu	VUT						5.6			0.0
Zambia	ZMB	5234.4	3966.3	2096.6	1553.4	4274.9	4873.8	77.1	48.1	30.1
<b>Total</b>		<b>249604.8</b>	<b>263398.7</b>	<b>194756.6</b>	<b>737099.0</b>	<b>706672.0</b>	<b>801382.6</b>	<b>25.3</b>	<b>27.2</b>	<b>19.6</b>

**Note:** Countries in red are top destinations of announced greenfield investment from both within the Commonwealth and ROW; countries in green are additional top recipients of announced greenfield investment from ROW. Top destination is defined as cumulative value of announced greenfield investment over 2003–2018 exceeding US\$10 billion. Figures in blue indicate where countries in red received at least 50 percent of their total greenfield investment over 2003–2018 from within the Commonwealth. Figures in orange indicate where all other countries received at least 50 percent of their total greenfield investment over 2003–2018 from within the Commonwealth.

**Source:** fDi Markets; own calculations

Cumulative inward greenfield investment in Commonwealth Caribbean from ROW witnessed a peak level of US\$105 billion in the five years preceding the crisis before declining to US\$90 billion in the post-crisis years but picking up again to near pre-crisis levels (US\$104 billion) during the last five-year period. The USA has been the largest extra-Commonwealth greenfield investor in Commonwealth Caribbean over time, followed by the Netherlands and France, though the share of the USA went down from 56 to 36 percent over the period of analysis.

Cumulative inward greenfield investment in Commonwealth Europe from ROW has been rising steadily, from US\$151 billion in the five years preceding the crisis to US\$167 billion

in the post-crisis years and to US\$168 billion during the last five-year period. The USA has been the largest extra-Commonwealth greenfield investor in Commonwealth Europe over time, followed by Germany, France and Ireland, though the share of the USA went down from 42.4 to 38.3 percent over the period of analysis.

Cumulative inward greenfield investment in the Commonwealth Pacific from ROW witnessed a peak level of US\$113 billion in the five years preceding the crisis before declining to US\$76 billion in the post-crisis years and falling further to US\$68 billion during the last five-year period. The USA has been the largest extra-Commonwealth greenfield investor in the Commonwealth Pacific over the past decade, followed by Japan, China and Germany.

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## 4. Outward greenfield investment from the Commonwealth

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Table 2 reports cumulative outward greenfield investment from Commonwealth countries by destination. The table shows that cumulative outward greenfield investment from Commonwealth member countries to ROW was significantly larger in value than intra-Commonwealth investment, at US\$688 billion over 2003–2008, but it declined significantly after the crisis to US\$543 billion during the next five years and even further after that to US\$430 billion over 2014–2018.

With the exception of Cyprus and Mauritius, there is a complete overlap in the top Commonwealth sources of cumulative outward greenfield investment to both the Commonwealth and ROW over 2003–2018 (top sources are defined as those investing at least US\$10 billion of their greenfield projects by value cumulatively over 2003–2018). However, with the exception of Mauritius, all top sources invest a major share of their greenfield projects by value outside the Commonwealth (the Commonwealth's share is consistently below 50 percent for all top sources except Mauritius).

The UK was the topmost source of cumulative outward greenfield investment to both the Commonwealth (US\$231 billion) and ROW (US\$626 billion) over 2003–2018 but

the Commonwealth accounts for less than 30 percent of the UK's total cumulative outward investment over time.

As is true of inward greenfield investment, the smaller Commonwealth countries invest more of their greenfield projects by value within the Commonwealth only; the Commonwealth's share in their total outward investment is well above 50 percent for more than half of the 43 Commonwealth investors and in several cases (especially Malawi and Papua New Guinea), the Commonwealth accounts for all outward greenfield investment. Some small countries, like Bangladesh, Jamaica, Tanzania and Trinidad and Tobago, have invested more of their greenfield projects by value within the Commonwealth over the years, whereas other small countries, like Botswana, Brunei Darussalam, Ghana, Kenya, Nigeria, Sri Lanka and Uganda, have displayed a declining preference over time for the Commonwealth as an investment destination.

Considering cumulative greenfield investment from Commonwealth regions by destination (Figure 8), it is observed that Commonwealth Europe and Commonwealth Asia together accounted for 58 percent of cumulative outward intra-Commonwealth greenfield





Table 2. Cumulative outward greenfield investment from Commonwealth countries by destination (US\$ million) (Continued)

Source	Destination												
	Commonwealth					ROW					Share of Commonwealth in total (%)		
Commonwealth country	ISO code	2003–2008	2009–2013	2014–2018	2003–2008	2009–2013	2014–2018	2003–2008	2009–2013	2014–2018	2003–2008	2009–2013	2014–2018
Namibia	NAM	30.6	523.2			168.3		100.0	75.7				
New Zealand	NZL	1393.5	2286.5	5261.5	1531.1	5096.1	1655.9	47.6	31.0				76.1
Nigeria	NGA	1118.7	2897.9	965.0	191.7	3990.1	1480.9	85.4	42.1				39.5
Pakistan	PAK	206.8	253.4	175.8	2016.2	990.3	865.5	9.3	20.4				16.9
Papua New Guinea	PNG	66.7	156.5				33.8	100.0	100.0				0.0
Rwanda	RWA		37.3				83.0		100.0				0.0
Saint Lucia	LCA	24.4						100.0					
Samoa	WSM				602.1			0.0					
Seychelles	SYC						3.0						0.0
Sierra Leone	SLE						10.1						0.0
Singapore	SGP	13060.5	10308.6	29981.0	52676.0	57368.2	82614.8	19.9	15.2				26.6
Solomon Islands	SLB		4.7			0.9			83.9				
South Africa	ZAF	10349.2	24453.8	9536.0	23795.0	25936.1	8015.5	30.3	48.5				54.3
Sri Lanka	LKA	1562.1	815.4	684.8	9.2	378.6	396.5	99.4	68.3				63.3
United Republic of Tanzania	TZA		274.2	337.6	22.0	53.0	37.0	0.0	83.8				90.1
Trinidad and Tobago	TTO	10.9	68.6		48.2	2.5		18.4	96.5				
Uganda	UGA	68.6	39.8	253.3		11.0	117.7	100.0	78.3				68.3
UK	GBR	88065.8	83712.1	59247.3	275549.8	210115.7	140735.3	24.2	28.5				29.6
Vanuatu	VUT			36.1			193.7						15.7
Zambia	ZMB		42.2			45.7			48.0				
<b>Total</b>		<b>249604.8</b>	<b>263398.7</b>	<b>194756.6</b>	<b>688118.7</b>	<b>542960.3</b>	<b>430376.9</b>	<b>26.6</b>	<b>32.7</b>				<b>31.2</b>

**Note:** Countries in red are top sources of announced greenfield investment to both the Commonwealth and ROW; countries in green are additional top sources of greenfield investment into ROW. Top source is defined as cumulative value of outward greenfield investment over 2003–2018 exceeding US\$10 billion. Figures in blue indicate where countries in red invested at least 50 percent of their total greenfield projects by value over 2003–2018 in the Commonwealth. Figures in orange indicate where all other countries invested at least 50 percent of their total greenfield projects by value over 2003–2018 in the Commonwealth.

**Source:** fDiMarkets; own calculations

investment over 2003–2008. Their combined share in the total increased to 68 percent in the five years after the crisis, with Commonwealth Asia becoming the more dominant source. Meanwhile, the share of Commonwealth Africa increased sharply, from 5 to 16 percent, whereas that of the Commonwealth Caribbean fell drastically, from 22 to 7 percent. Commonwealth Asia continued its dominant position as the major source of outward intra-Commonwealth greenfield investment over the last five-year period; the share of Commonwealth Africa has declined from 16 to 9 percent in total outward cumulative investment whereas that of the Commonwealth Pacific has gone up from 9 to 14 percent.

Commonwealth regional analysis of outward greenfield investment going to ROW is somewhat different. While Commonwealth Europe is the most important source over time, accounting for more than 40 percent of total cumulative greenfield investment destined to ROW, especially over 2003–2013, Commonwealth Asia comes in next with a share around 25 percent. The last five-year period witnessed a change, with Commonwealth Asia replacing Commonwealth Europe as the most dominant Commonwealth regional source of outward greenfield investment, with a share of 38 percent in the total. Meanwhile, the Commonwealth Pacific and Commonwealth Africa, especially

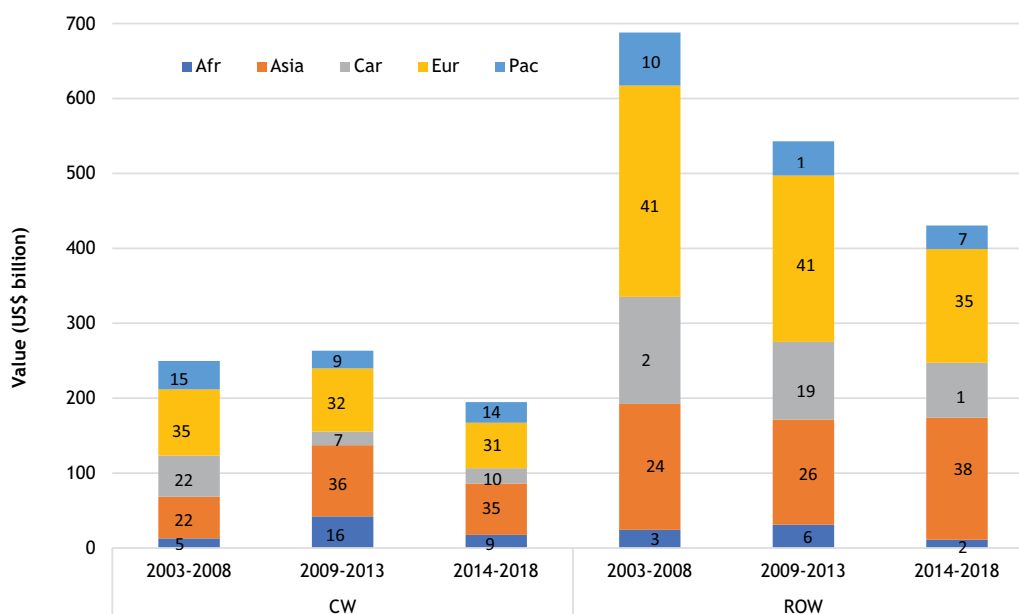
the latter, are far less significant sources of investment destined for ROW, while the share of the Commonwealth Caribbean in the total has also declined consistently over time, from 21 to 19 to 17 percent.

*The tables in Annex 3 show the distribution of cumulative outward greenfield investment by destination over time by Commonwealth region.*

The data reported in the tables in Annex 3 show that cumulative outward greenfield investment from the Commonwealth across regions was much higher in the pre-crisis years than it has been in the years since the crisis. The distribution of outward investment by destination across Commonwealth regions is also far more diversified than that of inward investment into Commonwealth regions by source. The USA and China have been among the major recipients of outward investment from the Commonwealth across regions, with the exception of Commonwealth Asia, where the USA did not figure among the top 10 destinations in any of the time periods.

Cumulative outward greenfield investment from Commonwealth Africa to ROW rose steadily from US\$24 billion in the five years preceding the crisis to US\$31 billion in the post-crisis years but fell to US\$10 billion during the last five-year period. The distribution of recipients has become more far more diversified over time, with the share of the top 10 recipients

Figure 8. Cumulative greenfield investment from Commonwealth regions by destination (value and % share in total)



Source: fDi Markets; own calculations

plummeting from 89 percent over 2003–2008 to 55 percent a decade later. While the USA and China were among the largest recipients of greenfield investment from Commonwealth Africa over the first decade, they were replaced by Ethiopia and Zimbabwe during the last five-year period. Interestingly, at least 4 of the top 10 destinations for outward investment from Commonwealth Africa over the past decade have been African countries.

Cumulative outward greenfield investment from Commonwealth Asia to ROW was in the range of US\$140 to US\$168 billion over the period of analysis. The largest recipient of greenfield investment from Commonwealth Asia was China, followed by Vietnam, Indonesia and United Arab Emirates. While the shares of China, Vietnam and United Arab Emirates declined after the five years preceding the crisis, the share of Indonesia rose from 10.5 percent in the five years preceding the crisis to 14 percent in the last five-year period. Meanwhile, the distribution of recipients has remained fairly stable over time.

Cumulative outward greenfield investment from the Commonwealth Caribbean to ROW witnessed a peak level of US\$143 billion in the five years preceding the crisis before declining to US\$103 billion in the post-crisis years and falling further to US\$73 billion during the last five-year period. The largest recipient of greenfield investment from the Commonwealth Caribbean in the past decade has been the USA, whose share went up from 18 to 46 percent over the period of analysis. A striking finding is the

fall in the share of Chile during the period of analysis from 26 percent over 2003–2008 to 1.8 percent a decade later. Meanwhile, the distribution of recipients has become more concentrated over time, with the share of the top 10 recipients rising from 64 percent over 2003–2008 to 76 percent a decade later.

Cumulative outward greenfield investment from Commonwealth Europe to ROW witnessed a peak level of US\$281 billion in the five years preceding the crisis before declining to US\$221 billion in the post-crisis years and falling further to US\$151 billion during the last five-year period. The topmost recipient of greenfield investment from Commonwealth Europe over time has been the USA, followed by China. While the distribution of recipients has remained stable over time, the share of the USA increased from 22 percent during 2003–2008 to 34 percent a decade later, whereas that of China declined from 21 to 13 percent.

Cumulative outward greenfield investment from the Commonwealth Pacific to ROW witnessed a peak level of US\$71 billion in the five years preceding the crisis before declining to US\$46 billion in the post-crisis years and falling further to US\$17.6 billion during the last five-year period. The topmost recipient of greenfield investment from the region since 2003 has been the USA, followed by Indonesia and China, even as the distribution of recipients has become more concentrated over time, with the share of the top 10 recipients rising from 66 percent over 2003–2008 to 80 percent a decade later.

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## 5. Sectoral distribution of Commonwealth greenfield investment

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Tables 3 and 4 report the sectoral distribution of greenfield investment coming into the Commonwealth from within and outside the Commonwealth, respectively. The sectoral distribution of intra-Commonwealth greenfield investment is fairly concentrated, with the top 10 sectors accounting for over 80 percent of total inward intra-Commonwealth greenfield investment over 2003–2013 and 75 percent over the last five-year period.

Even within this, just three sectors (coal, oil and natural gas; metals; and real estate) accounted for over half of total inward intra-Commonwealth greenfield investment over 2003–2013. After that, in 2014–2018, the real estate sector attracted the most greenfield investment, with a share exceeding 20 percent, while communications and food and tobacco no longer figure within the top 10 sectors.

Table 3. Sectoral distribution of intra-Commonwealth greenfield investment

Sectors	2003–2008			2009–2013			2014–2018		
	Value (US\$m)	Share (%)	Sectors	Value (US\$m)	Share (%)	Sectors	Value (US\$m)	Share (%)	Sectors
Coal, oil and natural gas	72,397.0	29.0	Coal, oil and natural gas	84,811.10	32.2	Real estate	42,161.6	21.6	
Metals	50,563.2	20.3	Real estate	28,767.20	10.9	Communications	16,860.9	8.7	
Real estate	26,104.2	10.5	Metals	26,089.5	9.9	Metals	13,907.4	7.1	
Financial services	14,904.9	6.0	Communications	23,460.0	8.9	Renewable energy	12,523.6	6.4	
Hotels & tourism	12,901.5	5.2	Financial services	18,056.5	6.9	Alternative/renewable energy	11,938.1	6.1	
Minerals	8,014.3	3.2	Alternative/renewable energy	8,322.3	3.2	Coal, oil & gas	11,716.8	6.0	
Alternative/renewable energy	7,456.9	3.0	Business services	7,597.4	2.9	Coal, oil and natural gas	11,643.2	6.0	
Software & IT services	5,953.7	2.4	Chemicals	6,717.7	2.6	Financial services	10,208.4	5.2	
Communications	5,864.6	2.3	Food & tobacco	6,381.6	2.4	Software & IT services	8,626.0	4.4	
Food & tobacco	4,335.8	1.7	Software & IT services	6,337.2	2.4	Business services	6,239.3	3.2	
<b>Top 10</b>	<b>208,496.0</b>	<b>83.5</b>	<b>Top 10</b>	<b>216,540.6</b>	<b>82.2</b>	<b>Top 10</b>	<b>145,825.3</b>	<b>74.9</b>	
<b>Total</b>	<b>249,604.8</b>	<b>100.0</b>	<b>Total</b>	<b>263,398.7</b>	<b>100.0</b>	<b>Total</b>	<b>194,756.6</b>	<b>100.0</b>	

Source: fDI Markets; own calculations

Table 4. Sectoral distribution of extra-Commonwealth inward greenfield investment

Sectors	2003–2008			2009–2013			2014–2018		
	Value (US\$m)	Share (%)	Sectors	Value (US\$m)	Share (%)	Sectors	Value (US\$m)	Share (%)	Sectors
Coal, oil and natural gas	172,600.4	23.4	Coal, oil and natural gas	99,575.81	14.1	Real estate	102,742.9	12.8	
Real estate	51,114.5	6.9	Alternative/renewable energy	66,198.79	9.4	Coal, oil and gas	83,282.0	10.4	
Metals	47,382.6	6.4	Metals	54,739.2	7.7	Coal, oil and natural gas	61,299.8	7.6	
Automotive OEM	46,363.1	6.3	Communications	45,865.1	6.5	Communications	56,841.6	7.1	
Software & IT services	36,565.2	5.0	Real estate	39,014.2	5.5	Software & IT services	51,016.9	6.4	
Alternative/renewable energy	33,302.9	4.5	Financial services	38,483.0	5.4	Renewable energy	42,737.9	5.3	
Financial services	30,161.5	4.1	Software & IT services	37,210.2	5.3	Alternative/renewable energy	35,361.6	4.4	
Hotels & tourism	26,933.5	3.7	Automotive OEM	32,483.2	4.6	Transportation	32,297.2	4.0	
Semiconductors	25,647.8	3.5	Chemicals	27,490.6	3.9	Financial services	28,604.2	3.6	
Communications	24,933.3	3.4	Food & tobacco	25,893.7	3.7	Automotive OEM	27,309.6	3.4	
<b>Top 10</b>	<b>495,004.8</b>	<b>67.2</b>	<b>Top 10</b>	<b>466,953.9</b>	<b>66.1</b>	<b>Top 10</b>	<b>521,493.5</b>	<b>65.1</b>	
<b>Total</b>	<b>737,099.0</b>	<b>100.0</b>	<b>Total</b>	<b>706,672.0</b>	<b>100.0</b>	<b>Total</b>	<b>801,382.6</b>	<b>100.0</b>	

Source: fDI Markets; own calculations

Table 5. Sectoral distribution of Commonwealth outward greenfield investment

	2003–2008			2009–2013			2014–2018		
Sectors	Value (US\$m)	Share (%)	Sectors	Value (US\$m)	Share (%)	Sectors	Value (US\$m)	Share (%)	Share (%)
Coal, oil and natural gas	156,401.0	22.7	Coal, oil and natural gas	100,610.89	18.5	Real estate	99,723.9		23.2
Metals	137,196.0	19.9	Metals	725,64.63	13.4	Metals	33,282.7		7.7
Real estate	82,180.8	11.9	Real estate	578,46.6	10.7	Coal, oil and gas	26,173.6		6.1
Financial services	40,399.0	5.9	Financial services	453,56.6	8.4	Communications	24,043.2		5.6
Chemicals	35,064.8	5.1	Alternative/renewable energy	286,09.4	5.3	Financial services	21,689.4		5.0
Hotels & tourism	32,185.4	4.7	Communications	245,83.6	4.5	Software & IT services	16,238.0		3.8
Alternative/renewable energy	19,951.7	2.9	Business services	214,74.5	4.0	Business services	16,017.4		3.7
Food & tobacco	19,329.0	2.8	Transportation	213,63.1	3.9	Textiles	15,643.1		3.6
Transportation	16,917.4	2.5	Chemicals	207,20.9	3.8	Transportation	15,537.2		3.6
Communications	16,341.9	2.4	Food & tobacco	186,06.0	3.4	Hotels & tourism	13,866.7		3.2
<b>Top 10</b>	<b>555,967.1</b>	<b>80.8</b>	<b>Top 10</b>	<b>411,736.2</b>	<b>75.8</b>	<b>Top 10</b>	<b>282,215.2</b>		<b>65.6</b>
<b>Total</b>	<b>688,118.7</b>	<b>100.0</b>	<b>Total</b>	<b>542,960.3</b>	<b>100.0</b>	<b>Total</b>	<b>430,376.9</b>		<b>100.0</b>

Source: fDi Markets; own calculations

The sectoral distribution of extra-Commonwealth greenfield investment is more diversified, with the top 10 sectors accounting for two thirds of total inward extra-Commonwealth greenfield investment over time. Again, coal, oil and natural gas; metals; and real estate attracted the bulk of the extra-Commonwealth greenfield investment over the first decade, though the metals sector did not figure among the top 10 recipients over the last five-year period. Like the sectoral distribution of intra-Commonwealth investment, the real estate sector has also attracted the most extra-Commonwealth greenfield investment in the past five years, and the transportation sector has also become a top 10 recipient.

Table 5 reports the sectoral distribution of outward greenfield investment from the Commonwealth to ROW and shows that this distribution has become more diversified over time, with the top 10 sectors accounting for 81 percent of total cumulative outward investment from the Commonwealth during 2003–2008 and 76 and 66 percent over the next five-year periods. The top three sectors (coal,

oil and gas; metals and real estate) attracting investment from the Commonwealth are the same as those attracting investment into the Commonwealth, though their combined share in the total also declined from over half during 2003–2008 to about a third a decade later. The real estate sector in the rest of the world has also received the most greenfield investment from Commonwealth countries in the past five years; in contrast, the chemicals and food and tobacco sectors are no longer the top recipients of Commonwealth investment, though software and IT services figure in the top 10 sectors.

On the whole, this analysis shows persistence in the sectoral distribution of both inward and outward Commonwealth greenfield investment, which suggests ample scope for diversification, especially in favour of services sectors, where several Commonwealth countries now exhibit a revealed comparative advantage. Automotive OEM is the only sector that figures among the top 10 recipients of extra-Commonwealth greenfield investment but is not among the top 10 sectors for intra-Commonwealth and outward Commonwealth greenfield investment.

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## 6. Effect of Commonwealth membership on greenfield investment

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Much like bilateral trade in goods, bilateral investment ( $I_{ijt}$ , from country  $i$  to country  $j$  at time  $t$ ) is governed by the same forces of ‘gravity’, such as the gross domestic product (GDP) of the source and destination countries, prices and bilateral costs (see, e.g., Egger and Pfaffermayr, 2004). The last are typically proxied by bilateral distance between capitals of the two countries, incidence of restrictive FDI regulation and indicators for common international borders, language, colonial origins, legal systems and membership of trade agreements and bilateral investment treaties (BITs).

Empirically, we have the following model:

$$\ln I_{ijt} = \alpha_{it} + \gamma_{jt} + \delta TA_{ijt} + \varnothing BIT_{ijt} + \mu TC_{ij} + \varepsilon_{ijt} \quad (1)$$

where the time-varying source- ( $\alpha_{it}$ ) and destination-country ( $\gamma_{jt}$ ) fixed effects in (1) control

for the effect of the respective GDPs as well as other time-varying determinants in a panel data setting;  $TC_{ij}$  are the bilateral trade cost ‘gravity’ variables and  $\varepsilon_{ijt}$  is the error term. In the context of this study, equation (1) is augmented by  $Commonwealth_{ij}$ , a dummy variable that takes the value 1 for Commonwealth membership (and 0 otherwise).

Recent advancements in the estimation of structural gravity advocate the use of three-way fixed effects to mitigate endogeneity-induced biases in estimation (see, e.g., Baier and Bergstrand, 2007; Baier et al. 2014; Piermartini and Yotov, 2016). The bilateral trade cost variables are thus subsumed in bilateral pairwise fixed effects ( $\mu_{ij}$ ), leading to the following estimating equation:

$$\ln I_{ijt} = \mu_{ij} + \alpha_{it} + \gamma_{jt} + \delta TA_{ijt} + \varnothing BIT_{ijt} + \varnothing Commonwealth_{ij} + \varepsilon_{ijt} \quad (2)$$



Note that  $\text{Commonwealth}_{ij}$  is completely collinear with the bilateral pairwise fixed effects so, in the spirit of Anderson and Yotov (2016), we estimate equation (2) in two steps as follows:

$$\ln I_{ijt} = \mu_{ij} + \alpha_{it} + \gamma_{jt} + \varepsilon_{ijt} \quad (3)$$

$$\text{RES}_{ijt} = \delta \text{TA}_{ijt} + \emptyset \text{BIT}_{ijt} + \emptyset \text{Commonwealth}_{ij} + \varepsilon_{ijt} \quad (4)$$

In the first step, we regress bilateral investment on three-way fixed effects; in the next step, we regress the residual from equation (3) on the explanatory variables in equation (4).

Two stylised features of bilateral trade and investment data that challenge the estimation of structural gravity models are sample selection and heteroskedasticity (Xiong and Chen, 2014). The Poisson Pseudo-Maximum Likelihood (PPML; Silva and Teneyro, 2006) estimator is now regarded as the gold standard (see, e.g., Piermartini and Yotov, 2016) in the estimation of structural gravity models characterised by sample selection and heteroskedasticity.

We thus estimate the effect of Commonwealth membership on bilateral greenfield investment, using the PPML estimator, which accounts for both the incidence of zero investment flows and heteroskedasticity of the error term in estimation, leading to unbiased estimates. In keeping with recent advancements in estimating structural gravity models (Piermartini and Yotov, 2016), the dependent variable also includes

data on ‘internal’ investment (data on gross fixed capital formation in US\$ million taken from the World Bank’s World Development Indicators).

The estimating equations (3) and (4) take the following form:

$$I_{ijt}^G = \exp(\lambda_{it} + \lambda_{jt} + \lambda_{ij}) + \mu_{ijt} \dots \quad (5)$$

$$\text{RES}_{ijt} = \exp(\beta_1 \text{BIT}_{ijt} + \beta_2 \text{TA}_{ijt} + \beta_3 \text{Commonwealth}_{ij}) + \mu_{ijt} \quad (6)$$

where the dependent variable in equation (5) is the value of announced greenfield investment project undertaken by country  $i$  in country  $j$  at time  $t$  in US\$ million constructed using data from fDi Markets;  $\text{RES}_{ijt}$  is the residual from estimating equation (4);  $\text{BIT}_{ijt}$  is a binary dummy indicating membership of a BIT between the two partners constructed using data from UNCTAD’s International Investment Agreements Navigator;<sup>2</sup>  $\text{TA}_{ijt}$  is a binary dummy indicating membership of a preferential trade agreement (goods and/or services)<sup>3</sup> between the two partners constructed using data from the World Trade Organization Regional Trade Agreement Information System; and  $\mu_{ijt}$  is the error term.

Table 6 reports the results from this two-step estimation and suggests that Commonwealth membership may have a weakly significant but positive effect on bilateral greenfield investment

**Table 6. Effect of Commonwealth membership on greenfield investment (PPML estimates with three-way fixed effects)**

VARIABLES	(1)	(2)	(3)
$\text{GTA}_{ijt}$	0.003 (0.050)		-0.042 (0.067)
$\text{BIT}_{ijt}$	-0.460*** (0.089)	-0.463*** (0.089)	-0.462*** (0.089)
$\text{CW}_{ij}$	0.173* (0.101)	0.174* (0.101)	0.175* (0.101)
$\text{STA}_{ijt}$		0.043 (0.055)	0.076 (0.074)
Observations	16,781	16,781	16,781
Source-Year FE	YES	YES	YES
Destination-Year FE	YES	YES	YES
Source-Destination FE	YES	YES	YES
Pseudo R2	0.9960	0.9960	0.9960

**Note:** Intra-national investment observations included with country-specific dummies for internal investment. Standard errors clustered by dyad-year. Levels of significance: \* 10%, \*\* 5%, \*\*\* 1%.

among our sample countries for the period of analysis. The estimated coefficient of  $CW_{ijt}$  translates into 19 per cent more greenfield investment.<sup>4</sup>

Significantly, the presence of BITs or trade agreements (goods or services) is also not associated with a statistically significant positive effect on bilateral greenfield investment. Contrary to expectations, extant empirical literature provides mixed evidence for the impact of BITs on bilateral investment (e.g. Frenkel and Walter, 2019; Kox and Rojas-Romagosa, 2019).

Illustratively, Kox and Rojas-Romagosa (2019) find the BITs coefficient to be positive and significant when using four-year FDI averages and yearly data, but not when using three-year FDI averages with three-way fixed effects. They also find the coefficient to be significant and negative when they replace bilateral fixed effects with standard gravity controls.

A regional decomposition of the estimates in Table 7 suggests that only Commonwealth European partners may have been associated with a statistically significant positive impact on

**Table 7. Decomposing the effect of Commonwealth membership by regions**

VARIABLES	(1)	(2)	(3)
$GTA_{ijt}$	0.049 (0.057)		0.012 (0.073)
$BIT_{ijt}$	-0.529*** (0.089)	-0.532*** (0.089)	-0.532*** (0.089)
$CW_{ij}$	-0.812*** (0.265)	-0.782*** (0.259)	-0.792*** (0.263)
$STA_{ijt}$		0.071 (0.059)	0.062 (0.075)
$CW\_CAR_{ij}$	0.143 (0.144)	0.135 (0.142)	0.137 (0.144)
$CW\_AFR_{ij}$	-0.344*** (0.126)	-0.340*** (0.126)	-0.339*** (0.127)
$CW\_EUR_{ij}$	0.118 (0.089)	0.112 (0.089)	0.112 (0.089)
$CW\_ASIA_{ij}$	0.274*** (0.076)	0.274*** (0.071)	0.276*** (0.076)
$CW\_PAC_{ij}$	-0.031 (0.113)	-0.042 (0.112)	-0.039 (0.114)
$CW\_CAR_{ij} * CW_{ij}$	-0.633*** (0.241)	-0.644*** (0.242)	-0.639*** (0.242)
$CW\_AFR_{ij} * CW_{ij}$	0.437* (0.263)	0.424 (0.260)	0.428 (0.261)
$CW\_EUR_{ij} * CW_{ij}$	0.911*** (0.227)	0.896*** (0.224)	0.902*** (0.227)
$CW\_ASIA_{ij} * CW_{ij}$	0.554** (0.225)	0.543** (0.225)	0.547** (0.223)
$CW\_PAC_{ij} * CW_{ij}$	0.230 (0.270)	0.208 (0.270)	0.211 (0.270)
Observations	16,781	16,781	16,781
Source-Year FE	YES	YES	YES
Destination-Year FE	YES	YES	YES
Source-Destination FE	YES	YES	YES
Pseudo R2	0.9960	0.9960	0.9960

**Note:** Intra-national investment observations included with country-specific dummies for internal investment. Standard errors clustered by dyad-year. Levels of significance: \* 10%, \*\* 5%, \*\*\* 1%.

**Table 8. Decomposing the effect of Commonwealth membership by time period**

VARIABLES	(1)	(2)	(3)
GTA <sub>ijt</sub>	0.023 (0.051)		-0.029 (0.067)
BIT <sub>ijt</sub>	-0.406*** (0.088)	-0.407*** (0.088)	-0.407*** (0.089)
CW <sub>ij</sub>	0.142 (0.163)	0.146 (0.163)	0.147 (0.163)
STA <sub>ijt</sub>		0.067 (0.057)	0.090 (0.075)
PRE <sub>t</sub>	0.145** (0.067)	0.153** (0.068)	0.152** (0.068)
POST <sub>t</sub>	-0.078 (0.066)	-0.074 (0.066)	-0.074 (0.066)
PRE <sub>t</sub> * CW <sub>ij</sub>	-0.134 (0.212)	-0.138 (0.212)	-0.139 (0.212)
POST <sub>t</sub> * CW <sub>ij</sub>	0.278 (0.244)	0.275 (0.244)	0.274 (0.244)
Observations	16,781	16,781	16,781
Source-Year FE	YES	YES	YES
Destination-Year FE	YES	YES	YES
Source-Destination FE	YES	YES	YES
Pseudo R2	0.9960	0.9960	0.9960

**Note:** PRE<sub>t</sub> = 2003–2008; POST<sub>t</sub> = 2009–2013. Intra-national investment observations included along with country-specific dummies for internal investment. Standard errors clustered by dyad-year. Levels of significance: \* 10%, \*\* 5%, \*\*\* 1%.

bilateral greenfield investment, ranging from 10.4 to 12.1 per cent more bilateral investment.<sup>5</sup> None of the other Commonwealth regional members reports a statistically significant positive effect on bilateral greenfield investment. Note that each of the Commonwealth regional dummy variables is constructed such that the variable takes the value 1 if either the source or the destination country belongs to that particular region (and the value 0 otherwise). The estimates reported in Table 7 also suggest that

Commonwealth Asia may be a more attractive source of and/or destination for greenfield investment than average, and Commonwealth Africa less attractive.

Decomposition of the estimates by different time periods in Table 8 suggests that the effect of Commonwealth membership may have been benign across these time periods, though the six years preceding the crisis are associated with 16 per cent<sup>6</sup> more greenfield investment, *ceteris paribus* and on average.

## 7. Determinants of Commonwealth greenfield investment

In this section, we use the PPML with time-varying source and destination fixed effects to examine the extent to which standard gravity covariates (such as distance, contiguity, common language and legal systems, and being a part of

a colonial relationship in the past) and policy factors (presence of BITs and trade agreements) have a bearing on intra-, extra- and outward Commonwealth greenfield investment. Data on the standard gravity covariates are sourced from

the Centre d'études prospectives et d'informations internationales (CEPII) (Head et al., 2010).

Estimation results reported in Table 9 suggest that only the presence of common legal origins is a statistically significant determinant of intra-Commonwealth greenfield investment. The impact of geography and policy factors is non-positive, whereas that of common language is statistically insignificant.

Membership of a goods trade agreement (GTA), common legal antecedents and being part of a colonial relationship in the past are statistically significant determinants of greenfield investment coming into the Commonwealth from the rest of the world, whereas contiguity

and having a common language seems to have a negative effect on extra-Commonwealth inward greenfield investment. The estimates of BITs and services trade agreements (STAs) lack statistical significance, though distance has a weakly negative effect when only STAs are included in estimation (see Table 10).

Meanwhile, a common language is a statistically significant determinant of outward greenfield investment from the Commonwealth to the rest of the world (though only in column 1), whereas the impact of BITs and geography is distinctly negative. The effect of other cultural and policy factors is statistically indifferent from 0 (see Table 11).

## 8. Conclusion

This paper uses descriptive statistics and an augmented structural gravity model to examine the effect of Commonwealth membership on investment, based on fDi Markets data on reported bilateral announced greenfield investment projects for close to 200 source and destination countries over 2003–2018. The total value

of announced greenfield investment into the Commonwealth over this period was US\$2.95 trillion, which was less than half of the total stock of inward FDI into the Commonwealth countries (US\$6.6 trillion) in 2018. While the analysis may thus not be representative of the complete FDI picture in the Commonwealth,

Table 9. Determinants of intra-Commonwealth greenfield investment (PPML estimates)

VARIABLES	(1)	(2)	(3)
GTA <sub>ijt</sub>	-0.192 (0.311)		0.662 (0.509)
BIT <sub>ijt</sub>	-0.371 (0.339)	-0.550* (0.291)	-0.496 (0.310)
CNTG <sub>ij</sub>	-1.086* (0.567)	-1.481*** (0.558)	-1.842*** (0.643)
LANG <sub>ij</sub>	0.103 (0.524)	-0.182 (0.462)	0.055 (0.519)
ln(DIST <sub>ij</sub> )	-0.883*** (0.219)	-0.965*** (0.192)	-0.806*** (0.225)
LEG <sub>ij</sub>	0.388* (0.227)	0.464** (0.217)	0.462** (0.218)
STA <sub>ijt</sub>		-0.570* (0.311)	-1.080** (0.506)
Observations	636	636	636
Source-Year FE	YES	YES	YES
Destination-Year FE	YES	YES	YES
Pseudo R2	0.819	0.821	0.822

Note: Standard errors clustered by dyad-year. Levels of significance: \* 10%, \*\* 5%, \*\*\* 1%.

**Table 10. Determinants of extra-Commonwealth greenfield investment (PPML estimates)**

VARIABLES	(1)	(2)	(3)
GTA <sub>ijt</sub>	0.385** (0.158)		0.346* (0.181)
BIT <sub>ijt</sub>	-0.112 (0.172)	-0.090 (0.174)	-0.106 (0.173)
CNTG <sub>ij</sub>	-0.796*** (0.251)	-0.505** (0.211)	-0.763*** (0.248)
LANG <sub>ij</sub>	-0.489* (0.261)	-0.496* (0.282)	-0.511* (0.286)
ln(DIST <sub>ij</sub> )	-0.224 (0.139)	-0.298** (0.133)	-0.227 (0.140)
CLNY <sub>ij</sub>	0.628** (0.293)	0.714** (0.289)	0.630** (0.293)
LEG <sub>ij</sub>	0.903*** (0.309)	0.907*** (0.309)	0.905*** (0.310)
STA <sub>ijt</sub>		0.302 (0.193)	0.068 (0.223)
Observations	1,691	1,691	1,691
Source-Year FE	YES	YES	YES
Destination-Year FE	YES	YES	YES
Pseudo R2	0.811	0.811	0.811

**Note:** Standard errors clustered by dyad-year. Levels of significance: \* 10%, \*\* 5%, \*\*\* 1%.

**Table 11. Determinants of outward Commonwealth greenfield investment to ROW (PPML estimates)**

VARIABLES	(1)	(2)	(3)
GTA <sub>ijt</sub>	-0.097 (0.143)		-0.291 (0.217)
BIT <sub>ijt</sub>	-0.431*** (0.131)	-0.429*** (0.133)	-0.405*** (0.134)
CNTG <sub>ij</sub>	-1.007*** (0.263)	-1.104*** (0.229)	-0.863*** (0.278)
LANG <sub>ij</sub>	0.428** (0.198)	0.273 (0.239)	0.262 (0.238)
ln(DIST <sub>ij</sub> )	-0.912*** (0.093)	-0.844*** (0.075)	-0.937*** (0.097)
CLNY <sub>ij</sub>	0.197 (0.195)	0.176 (0.192)	0.270 (0.202)
LEG <sub>ij</sub>	-0.919 (0.675)	-1.149 (0.706)	-0.974 (0.702)
STA <sub>ijt</sub>		0.116 (0.161)	0.291 (0.231)
Observations	1,654	1,654	1,654
Source-Year FE	YES	YES	YES
Destination-Year FE	YES	YES	YES
Pseudo R2	0.782	0.782	0.783

**Note:** Standard errors clustered by dyad-year. Levels of significance: \* 10%, \*\* 5%, \*\*\* 1%.

fDi Markets provides the most granular information on bilateral investment beyond 2012 and at the disaggregated sector level.

Descriptive statistics reveal that both inward and outward stock of Commonwealth FDI rose consistently over 2000–2018 in value terms from US\$1.2 trillion to US\$6.6 trillion, and from US\$1.6 trillion to US\$5.4 trillion, respectively, though, as a share of global FDI stock, the former shows an upward trend and the latter a downward trend on the whole. The UK, Singapore, Canada, Australia and India are the top recipients of inward FDI among Commonwealth countries; South Africa replaces India in these five countries as a major investor, followed by Cyprus and India.

As is true for both merchandise and services trade, the smaller Commonwealth countries are also found to be more reliant on the Commonwealth as both a source of and a destination for their greenfield investment. In terms of sectoral composition, real estate; coal, oil and gas; and metals are found to dominate both inward (both intra- and extra-) and outward Commonwealth greenfield investment. This suggests ample scope for diversification, especially in favour of services sectors, where several Commonwealth countries now exhibit a revealed comparative advantage.

Structural gravity estimates suggest that Commonwealth membership is associated

with 19 per cent more greenfield investment, although this effect is found to be only weakly significant. Meanwhile, the presence of common legal origins is found to be a statistically significant determinant of both intra- and extra-Commonwealth greenfield investment, along with membership of goods trade agreements and common colonial antecedents for the latter; geography has a negative bearing on both. No single factor consistently explains the Commonwealth's greenfield investment in the rest of the world, though the effect of geography and bilateral investment treaties is negative.

These findings also suggest that, as in the case of merchandise and services trade (Shingal and Razzaque, 2015), Commonwealth countries are not 'natural' investment partners. However, common legal origins emanating from their common colonial antecedents seem to facilitate intra-Commonwealth investment.

Among policy factors, being a part of a preferential GTA seems to foster extra-Commonwealth inward investment, though memberships of preferential STAs and BITs do not exhibit a statistically significant positive effect throughout specifications. This suggests that signing more effective STAs and BITs may be one way forward to attract more investment into the Commonwealth as well as to diversify the sectoral distribution of inward investment.

## Annex 1: Distribution of intra-Commonwealth greenfield investment by source over time by Commonwealth region

### Commonwealth Africa

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
Canada	26436.8	34.3	UK	23053.8	25.7	Zambia	7858.9	20.9
UK	20453.0	26.5	Jamaica	18975.2	21.2	Canada	5758.3	15.3
Australia	11319.7	14.7	Zambia	18689.6	20.9	UK	5070.2	13.5
Jamaica	10091.8	13.1	Malawi	7933.0	8.9	Ghana	4773.9	12.7
Zambia	5705.1	7.4	Australia	6729.6	7.5	Malawi	3935.4	10.5
Namibia	1095.3	1.4	Canada	4874.5	5.4	Jamaica	3210.1	8.5
New Zealand	956.6	1.2	Saint Lucia	4549.9	5.1	Namibia	3007.3	8.0
Saint Lucia	590.0	0.8	New Zealand	2881.3	3.2	Solomon Islands	1529.1	4.1
Solomon Islands	317.0	0.4	Solomon Islands	1019.9	1.1	Saint Lucia	1527.0	4.1
The Bahamas	129.8	0.2	Guyana	864.9	1.0	New Zealand	930.7	2.5
<b>Top 10</b>	<b>77095.2</b>	<b>100.0</b>	<b>Top 10</b>	<b>89571.7</b>	<b>100.0</b>	<b>Top 10</b>	<b>37600.9</b>	<b>100.0</b>
<b>Total</b>	<b>77406.0</b>	<b>99.6</b>	<b>Total</b>	<b>91032.1</b>	<b>98.4</b>	<b>Total</b>	<b>39039.6</b>	<b>96.3</b>

### Commonwealth Asia

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
UK	39756.6	43.4	UK	34901.0	33.9	UK	32921.8	38.2
Malaysia	14932.5	16.3	Ghana	32921.8	32.0	Singapore	19612.4	22.8
Canada	12656.6	13.8	India	11057.0	10.7	Australia	9938.3	11.5
Singapore	9883.4	10.8	Singapore	7266.1	7.1	India	9604.1	11.1
India	6200.5	6.8	Canada	5751.5	5.6	Malaysia	6071.4	7.0
Australia	5747.2	6.3	Australia	4780.4	4.6	Canada	2971.7	3.4
Sri Lanka	1533.8	1.7	Malaysia	3817.7	3.7	New Zealand	2832.1	3.3
South Africa	438.6	0.5	South Africa	1301.1	1.3	Bangladesh	1199.0	1.4
Mauritius	274.9	0.3	Sri Lanka	691.8	0.7	Sri Lanka	511.3	0.6
Bangladesh	228.6	0.2	New Zealand	485.5	0.5	South Africa	484.4	0.6
<b>Top 10</b>	<b>91652.7</b>	<b>100.0</b>	<b>Top 10</b>	<b>102973.8</b>	<b>100.0</b>	<b>Top 10</b>	<b>86146.5</b>	<b>100.0</b>
<b>Total</b>	<b>92386.7</b>	<b>99.2</b>	<b>Total</b>	<b>103526.9</b>	<b>99.5</b>	<b>Total</b>	<b>87203.5</b>	<b>98.8</b>

## Commonwealth Caribbean

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
UK	6244.3	38.5	UK	9383.0	65.9	UK	6243.7	64.3
Australia	4465.8	27.5	India	3399.5	23.9	India	1141.2	11.7
South Africa	3026.4	18.7	Australia	674.0	4.7	Jamaica	724.4	7.5
Canada	1607.0	9.9	Canada	177.3	1.2	The Bahamas	571.2	5.9
India	733.7	4.5	Jamaica	167.7	1.2	Canada	555.4	5.7
Barbados	63.7	0.4	Singapore	166.4	1.2	Australia	199.1	2.0
Jamaica	25.0	0.2	New Zealand	134.7	0.9	Malaysia	94.7	1.0
New Zealand	18.6	0.1	Trinidad and Tobago	68.6	0.5	South Africa	92.6	1.0
Malaysia	17.0	0.1	South Africa	36.9	0.3	Cyprus	48.9	0.5
Trinidad and Tobago	10.9	0.1	Antigua	30.9	0.2	New Zealand	45.1	0.5
<b>Top 10</b>	<b>16212.4</b>	<b>100.0</b>	<b>Top 10</b>	<b>14239.0</b>	<b>100.0</b>	<b>Top 10</b>	<b>9716.2</b>	<b>100.0</b>
<b>Total</b>	<b>16224.0</b>	<b>99.9</b>	<b>Total</b>	<b>14290.5</b>	<b>99.6</b>	<b>Total</b>	<b>9784.7</b>	<b>99.3</b>

## Commonwealth Europe

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
Australia	11536.2	45.1	Malaysia	13660.3	40.8	Australia	9342.4	31.9
Canada	7290.4	28.5	India	8183.5	24.4	Canada	6805.6	23.3
India	2746.4	10.7	Canada	4712.9	14.1	India	5477.8	18.7
South Africa	1007.5	3.9	Australia	4268.9	12.7	Singapore	4720.4	16.1
Malaysia	976.1	3.8	Singapore	1118.7	3.3	Cyprus	1141.6	3.9
Singapore	698.5	2.7	South Africa	584.6	1.7	Malaysia	784.9	2.7
UK	683.3	2.7	UK	394.3	1.2	South Africa	495.7	1.7
New Zealand	324.5	1.3	Cyprus	324.3	1.0	UK	204.7	0.7
Nigeria	162.1	0.6	New Zealand	139.6	0.4	New Zealand	193.9	0.7
The Bahamas	126.2	0.5	Bangladesh	106.8	0.3	Jamaica	76.4	0.3
<b>Top 10</b>	<b>25551.1</b>	<b>100.0</b>	<b>Top 10</b>	<b>33493.8</b>	<b>100.0</b>	<b>Top 10</b>	<b>29243.2</b>	<b>100.0</b>
<b>Total</b>	<b>25857.0</b>	<b>98.8</b>	<b>Total</b>	<b>33747.8</b>	<b>99.2</b>	<b>Total</b>	<b>29401.6</b>	<b>99.5</b>



## Commonwealth Pacific

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
UK	20928.8	55.5	Malaysia	16875.5	31.5	UK	10033.0	34.3
Canada	6352.3	16.9	UK	15980.0	29.9	India	5133.0	17.5
India	3475.5	9.2	India	7099.0	13.3	Singapore	4085.9	14.0
Australia	3278.9	8.7	Australia	4758.9	8.9	Canada	2823.9	9.7
Singapore	2160.0	5.7	South Africa	3841.6	7.2	Australia	2310.8	7.9
New Zealand	791.8	2.1	Canada	2317.5	4.3	New Zealand	2181.0	7.5
Malaysia	433.4	1.1	New Zealand	1526.7	2.9	Malaysia	1937.3	6.6
South Africa	171.6	0.5	Singapore	737.5	1.4	South Africa	604.4	2.1
Jamaica	70.0	0.2	Cyprus	228.6	0.4	Sri Lanka	109.7	0.4
Papua New Guinea	34.8	0.1	Papua New Guinea	134.6	0.3	Kenya	40.2	0.1
<b>Top 10</b>	<b>37697.1</b>	<b>100.0</b>	<b>Top 10</b>	<b>53499.9</b>	<b>100.0</b>	<b>Top 10</b>	<b>29259.2</b>	<b>100.0</b>
<b>Total</b>	<b>37731.2</b>	<b>99.9</b>	<b>Total</b>	<b>53681.0</b>	<b>99.7</b>	<b>Total</b>	<b>29331.5</b>	<b>99.8</b>

Source: fDi Markets; own calculations

## Annex 2: Distribution of extra-Commonwealth greenfield investment by source over time by Commonwealth region

### Commonwealth Africa

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
USA	17692.3	34.7	USA	12281.1	21.4	China	22802.0	27.7
France	12493.4	24.5	France	9634.8	16.8	USA	18091.9	22.0
China	5459.1	10.7	Germany	5733.9	10.0	Italy	11153.1	13.6
Brazil	3550.4	7.0	China	5572.4	9.7	Belgium	6271.5	7.6
Italy	2789.0	5.5	Italy	5397.1	9.4	Russia	5448.8	6.6
Norway	2409.6	4.7	Hong Kong	4697.8	8.2	Netherlands	4383.5	5.3
Germany	2161.1	4.2	UAE	4149.3	7.2	Japan	3947.9	4.8
Netherlands	1825.5	3.6	Japan	3831.3	6.7	France	3876.0	4.7
UAE	1371.4	2.7	South Korea	3019.7	5.3	South Korea	3462.5	4.2
South Korea	1211.5	2.4	Switzerland	2973.4	5.2	Norway	2741.8	3.3
<b>Top 10</b>	<b>50963.3</b>	<b>100.0</b>	<b>Top 10</b>	<b>57290.9</b>	<b>100.0</b>	<b>Top 10</b>	<b>82179.0</b>	<b>100.0</b>
<b>Total</b>	<b>63886.7</b>	<b>79.8</b>	<b>Total</b>	<b>84918.7</b>	<b>67.5</b>	<b>Total</b>	<b>109261.0</b>	<b>75.2</b>

### Commonwealth Asia

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
USA	100223.6	39.7	USA	69875.0	30.8	USA	78832.6	26.5
Germany	31369.8	12.4	Japan	39315.4	17.3	China	76621.7	25.8
Japan	30622.5	12.1	Germany	23647.9	10.4	Japan	38282.4	12.9
UAE	22594.7	8.9	China	22216.1	9.8	Germany	19853.8	6.7
France	16482.6	6.5	South Korea	19518.8	8.6	Hong Kong	17591.7	5.9
Netherlands	13539.0	5.4	France	13065.5	5.8	UAE	17579.5	5.9
South Korea	12029.9	4.8	UAE	12957.8	5.7	Taiwan	15809.5	5.3
Switzerland	11433.0	4.5	Hong Kong	9699.0	4.3	South Korea	13664.7	4.6
China	8173.9	3.2	Switzerland	8908.3	3.9	France	11917.7	4.0
Kuwait	6108.6	2.4	Netherlands	7806.5	3.4	Netherlands	7391.4	2.5
<b>Top 10</b>	<b>252577.5</b>	<b>100.0</b>	<b>Top 10</b>	<b>227010.4</b>	<b>100.0</b>	<b>Top 10</b>	<b>297545.0</b>	<b>100.0</b>
<b>Total</b>	<b>303667.6</b>	<b>83.2</b>	<b>Total</b>	<b>289125.9</b>	<b>78.5</b>	<b>Total</b>	<b>352317.6</b>	<b>84.5</b>

## Commonwealth Caribbean

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
USA	55963.5	55.9	USA	51006.4	60.3	USA	34702.6	35.8
Netherlands	16263.3	16.2	France	6870.0	8.1	Netherlands	30280.3	31.2
France	8653.1	8.6	Germany	5688.4	6.7	France	6703.9	6.9
Japan	6128.6	6.1	Japan	4770.3	5.6	China	6236.5	6.4
Germany	4975.2	5.0	China	4027.5	4.8	Germany	5036.2	5.2
Israel	2564.9	2.6	Brazil	3421.0	4.0	Italy	4335.5	4.5
Norway	2036.4	2.0	Norway	2409.0	2.8	Japan	4098.7	4.2
Spain	1328.2	1.3	Spain	2335.1	2.8	Brazil	2344.7	2.4
China	1228.9	1.2	Switzerland	2211.2	2.6	UAE	1949.5	2.0
Belgium	940.6	0.9	Sweden	1796.7	2.1	Hong Kong	1325.3	1.4
<b>Top 10</b>	<b>100082.6</b>	<b>100.0</b>	<b>Top 10</b>	<b>84535.5</b>	<b>100.0</b>	<b>Top 10</b>	<b>97013.3</b>	<b>100.0</b>
<b>Total</b>	<b>105144.7</b>	<b>95.2</b>	<b>Total</b>	<b>89891.8</b>	<b>94.0</b>	<b>Total</b>	<b>103887.6</b>	<b>93.4</b>

## Commonwealth Europe

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
USA	56806.6	42.4	USA	53735.9	41.7	USA	52265.6	38.3
Germany	15564.7	11.6	Germany	18728.3	14.5	Germany	18768.2	13.7
France	14287.8	10.7	France	9878.4	7.7	France	10512.5	7.7
Ireland	9050.8	6.8	Ireland	9541.7	7.4	Spain	10060.5	7.4
Netherlands	9004.7	6.7	Netherlands	6871.6	5.3	China	9852.8	7.2
Denmark	7223.4	5.4	Spain	6838.4	5.3	Denmark	8491.2	6.2
Japan	7199.1	5.4	Japan	6437.7	5.0	Japan	8423.4	6.2
Spain	6987.2	5.2	UAE	6310.6	4.9	Luxembourg	6374.5	4.7
UAE	4822.0	3.6	China	5438.5	4.2	Norway	6144.3	4.5
Sweden	2923.5	2.2	Norway	5133.4	4.0	Ireland	5617.7	4.1
<b>Top 10</b>	<b>133869.8</b>	<b>100.0</b>	<b>Top 10</b>	<b>128914.4</b>	<b>100.0</b>	<b>Top 10</b>	<b>136510.8</b>	<b>100.0</b>
<b>Total</b>	<b>151360.4</b>	<b>88.4</b>	<b>Total</b>	<b>167189.2</b>	<b>77.1</b>	<b>Total</b>	<b>168239.1</b>	<b>81.1</b>

## Commonwealth Pacific

2003–2008			2009–2013			2014–2018		
Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)	Source	Value (US\$ million)	Share (%)
Japan	57634.2	53.7	USA	25728.9	38.4	USA	23007.4	39.1
USA	29673.6	27.6	Japan	7712.2	11.5	China	9022.6	15.3
China	7552.8	7.0	Netherlands	6782.7	10.1	Germany	6515.1	11.1
Germany	4332.3	4.0	Germany	6509.9	9.7	Japan	5769.8	9.8
Switzerland	1510.6	1.4	China	6112.9	9.1	France	3894.3	6.6
UAE	1479.5	1.4	Switzerland	4985.4	7.4	Switzerland	3000.2	5.1
Austria	1442.1	1.3	Spain	3312.9	4.9	Thailand	2205.6	3.8
Spain	1259.0	1.2	France	1990.8	3.0	Netherlands	1967.1	3.3
Netherlands	1241.5	1.2	South Korea	1981.7	3.0	Spain	1755.9	3.0
South Korea	1217.6	1.1	Bermuda	1956.4	2.9	Hong Kong	1653.0	2.8
<b>Top 10</b>	<b>107343.1</b>	<b>100.0</b>	<b>Top 10</b>	<b>67073.8</b>	<b>100.0</b>	<b>Top 10</b>	<b>58791.0</b>	<b>100.0</b>
<b>Total</b>	<b>113039.6</b>	<b>95.0</b>	<b>Total</b>	<b>75546.4</b>	<b>88.8</b>	<b>Total</b>	<b>67677.3</b>	<b>86.9</b>

Source: fDi Markets; own calculations

## Annex 3: Distribution of outward greenfield investment by destination over time by Commonwealth region

### Commonwealth Africa

2003–2008			2009–2013			2014–2018		
Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)
Qatar	7845.0	36.5	USA	19059.4	71.0	Ethiopia	925.7	15.6
China	6765.0	31.5	China	1410.4	5.3	Zimbabwe	838.7	14.1
USA	1962.9	9.1	Zimbabwe	1160.3	4.3	Bulgaria	724.8	12.2
Russia	1168.7	5.4	DRC	1038.1	3.9	Madagascar	653.4	11.0
Iran	1041.3	4.8	Côte d'Ivoire	835.4	3.1	USA	558.7	9.4
Zimbabwe	620.8	2.9	Brazil	823.4	3.1	Czech Republic	551.0	9.3
Poland	615.0	2.9	Ethiopia	750.6	2.8	Egypt	470.5	7.9
DRC	607.5	2.8	Senegal	669.2	2.5	Côte d'Ivoire	454.0	7.6
Venezuela	494.4	2.3	Nepal	550.0	2.0	Germany	384.9	6.5
Germany	383.2	1.8	Angola	543.4	2.0	China	375.1	6.3
<b>Top 10</b>	<b>21503.8</b>	<b>100.0</b>	<b>Top 10</b>	<b>26840.1</b>	<b>100.0</b>	<b>Top 10</b>	<b>5936.8</b>	<b>100.0</b>
<b>Total</b>	<b>24165.8</b>	<b>89.0</b>	<b>Total</b>	<b>31184.2</b>	<b>86.1</b>	<b>Total</b>	<b>10870.4</b>	<b>54.6</b>

### Commonwealth Asia

2003–2008			2009–2013			2014–2018		
Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)
China	42344.6	33.1	China	36318.2	38.5	China	36786.4	30.4
Vietnam	26266.3	20.5	Indonesia	12865.9	13.6	Vietnam	17489.9	14.5
UAE	15711.0	12.3	Vietnam	12573.6	13.3	Indonesia	16950.5	14.0
Indonesia	13404.4	10.5	UAE	8334.4	8.8	UAE	13746.5	11.4
Turkey	6741.4	5.3	USA	6479.6	6.9	USA	9350.7	7.7
Saudi Arabia	6547.1	5.1	Oman	4835.3	5.1	Saudi Arabia	9037.9	7.5
Thailand	5553.1	4.3	Cambodia	4676.3	5.0	Philippines	5375.4	4.4
USA	5113.3	4.0	Zimbabwe	3090.8	3.3	Japan	5066.6	4.2
Brazil	3243.7	2.5	Saudi Arabia	2604.5	2.8	Cambodia	4037.5	3.3
Oman	2978.3	2.3	Brazil	2536.9	2.7	Algeria	3189.6	2.6
<b>Top 10</b>	<b>127903.2</b>	<b>100.0</b>	<b>Top 10</b>	<b>94315.5</b>	<b>100.0</b>	<b>Top 10</b>	<b>121030.9</b>	<b>100.0</b>
<b>Total</b>	<b>167930.9</b>	<b>76.2</b>	<b>Total</b>	<b>140358.7</b>	<b>67.2</b>	<b>Total</b>	<b>161539.4</b>	<b>74.9</b>

## Commonwealth Caribbean

2003–2008			2009–2013			2014–2018		
Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)
Chile	23377.0	25.8	USA	31429.3	40.4	USA	25613.5	46.2
USA	16563.3	18.3	Chile	9729.5	12.5	Mexico	8665.7	15.6
Peru	14057.3	15.5	Colombia	8603.5	11.1	Panama	7937.0	14.3
China	11533.8	12.7	China	6852.3	8.8	China	3281.8	5.9
Brazil	5830.5	6.4	Dominican Republic	4386.6	5.6	Japan	2562.1	4.6
Vietnam	5305.2	5.9	Mexico	4335.9	5.6	Argentina	1896.2	3.4
Mexico	4902.1	5.4	Netherlands	4162.4	5.3	France	1752.7	3.2
Russia	3393.7	3.7	Peru	3868.1	5.0	Uzbekistan	1300.0	2.3
Egypt	2934.0	3.2	Brazil	2442.9	3.1	UAE	1250.1	2.3
UAE	2693.6	3.0	Argentina	2037.8	2.6	Germany	1166.3	2.1
<b>Top 10</b>	<b>90590.5</b>	<b>100.0</b>	<b>Top 10</b>	<b>77848.2</b>	<b>100.0</b>	<b>Top 10</b>	<b>55425.3</b>	<b>100.0</b>
<b>Total</b>	<b>142685.2</b>	<b>63.5</b>	<b>Total</b>	<b>103473.7</b>	<b>75.2</b>	<b>Total</b>	<b>73098.7</b>	<b>75.8</b>

## Commonwealth Europe

2003–2008			2009–2013			2014–2018		
Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)
USA	33269.2	21.9	USA	35313.0	29.0	USA	28882.2	34.1
China	31547.0	20.8	China	23211.7	19.1	China	11022.1	13.0
Azerbaijan	14655.5	9.7	Brazil	18350.0	15.1	Spain	8904.0	10.5
Russia	13973.7	9.2	France	7109.0	5.8	Mongolia	5954.1	7.0
Ireland	11640.9	7.7	Russia	6536.1	5.4	Ireland	5327.6	6.3
Spain	10654.2	7.0	Hong Kong	6361.3	5.2	France	5311.3	6.3
Vietnam	10197.8	6.7	Spain	6292.3	5.2	Zimbabwe	5238.2	6.2
Poland	9323.8	6.1	Indonesia	6285.9	5.2	Hong Kong	5228.4	6.2
France	8902.6	5.9	Taiwan	6175.9	5.1	Germany	4538.7	5.4
Angola	7641.9	5.0	Chile	5992.1	4.9	Egypt	4210.7	5.0
<b>Top 10</b>	<b>151806.6</b>	<b>100.0</b>	<b>Top 10</b>	<b>121627.2</b>	<b>100.0</b>	<b>Top 10</b>	<b>84617.4</b>	<b>100.0</b>
<b>Total</b>	<b>281103.6</b>	<b>54.0</b>	<b>Total</b>	<b>221449.5</b>	<b>54.9</b>	<b>Total</b>	<b>151282.7</b>	<b>55.9</b>

## Commonwealth Pacific

2003–2008			2009–2013			2014–2018		
Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)	Destination	Value (US\$ million)	Share (%)
USA	10110.5	21.6	USA	11542.7	33.4	USA	4048.7	28.7
Indonesia	5744.9	12.2	China	6646.4	19.2	Indonesia	2019.7	14.3
China	5683.9	12.1	Indonesia	3580.2	10.4	China	1867.2	13.3
Mexico	5396.2	11.5	Brazil	3386.5	9.8	Germany	1380.2	9.8
Timor-Leste	4000.0	8.5	Chile	2576.0	7.5	Hong Kong	1241.6	8.8
Chile	3779.2	8.1	Peru	2045.2	5.9	Chile	1119.5	7.9
Brazil	3672.2	7.8	Colombia	1320.8	3.8	France	866.2	6.1
Philippines	3240.4	6.9	Philippines	1162.8	3.4	Poland	641.9	4.6
Mauritania	2967.6	6.3	Poland	1138.2	3.3	Vietnam	507.7	3.6
Italy	2317.9	4.9	Hong Kong	1132.5	3.3	Ireland	398.5	2.8
<b>Top 10</b>	<b>46912.7</b>	<b>100.0</b>	<b>Top 10</b>	<b>34531.4</b>	<b>100.0</b>	<b>Top 10</b>	<b>14091.0</b>	<b>100.0</b>
<b>Total</b>	<b>70861.3</b>	<b>66.2</b>	<b>Total</b>	<b>45853.1</b>	<b>75.3</b>	<b>Total</b>	<b>17592.2</b>	<b>80.1</b>

Source: fDi Markets; own calculations

## Notes

- 1 The regional groupings are as follows: **Africa** – Botswana, Cameroon, eSwatini, The Gambia, Ghana, Kenya, Lesotho, Mozambique, Mauritius, Malawi, Namibia, Nigeria, Rwanda, Seychelles, Sierra Leone, South Africa, Uganda, United Republic of Tanzania, Zambia; **Asia** – Bangladesh, Brunei-Darussalam, India, Malaysia, Maldives, Pakistan, Singapore, Sri Lanka; **Caribbean** – Antigua and Barbuda, The Bahamas, Barbados, Belize, Canada, Dominica, Grenada, Guyana, Jamaica, St Kitts and Nevis, Saint Lucia, St Vincent and the Grenadines, Trinidad and Tobago; **Europe** – Cyprus, Malta, UK; and **Pacific** – Australia, Fiji, Kiribati, Nauru, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.
- 2 <https://investmentpolicy.unctad.org/international-investment-agreements>
- 3 Defined as agreements notified under Article XXIV of the General Agreement on Tariffs and Trade and under Article V of the General Agreement on Trade in Services, respectively.
- 4 This is calculated as  $[\exp(0.174)-1]*100$ .
- 5 This is calculated as  $[\exp(\text{coefficient of } CW_{ij} + \text{coefficient of } CW_{EUR_{ij}} * CW_{ij}) - 1] * 100$ .
- 6 This is calculated as  $[\exp(0.15)-1]*100$ .

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