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Cashing in: how do cash deposits at Post Offices change when local bank branches shut?

Summary

Despite much talk of the UK becoming a 'cashless' society, cash withdrawal volumes in 2022 have now recovered to their highest level since the beginning of the coronavirus pandemic in early 2020. With growing concerns around the cost of living, it has been reported that many households are increasingly relying on cash to help them keep to their budget.

In Spring 2022, the UK Government has taken steps to legislate to protect access to cash and ensure wholesale cash infrastructure remains viable. This follows several years of reports and campaigns to protect cash infrastructure, including the high-profile Access to Cash Review.

To-date, considerable attention has been paid to cash withdrawals and the geographical distribution of ATMs across the country, especially in more deprived areas. The changing nature of cash deposits, however, has been little researched. The ability to deposit cash plays an important role in the overall cash cycle, in particular by ensuring that businesses accepting cash are able to deposit it easily and securely. But, as bank branch numbers diminish, this function is increasingly under threat. This may hasten the decline of cash and further impact those communities that continue to rely on cash.

In this report, we therefore present findings of analysis of the relationship between bank branch closures and cash deposit volumes. To do this, we use deposit data provided by the Post Office and data on bank branch closures in Britain between April 2021 and March 2022.

We find that:

- Cash deposits at Post Offices (POs) increased generally over the period from April 2021 to March 2022, but much more so at POs where nearby bank branches had closed. For example, POs with one or more bank closure within 1km saw deposit volumes grow by 27%, compared with just 8% for those POs not affected.
- Urban POs with bank closures within 1km saw a 27% growth in deposit volumes, compared to 11% for urban POs without bank closures. For rural POs with bank closures within 5km, there was an 11% increase in deposits, compared to a 2% rise in deposit volumes at rural POs with no closures.
- A clear pattern of deposit increases occurs at POs in the months following a bank branch closure.
- Controlling for area characteristics and previous number of bank branches, those POs in areas with bank closures were significantly more likely to experience growth in deposits than those where there were no closures.

The report highlights the importance of protecting – and improving – mechanisms such as the Post Office that consumers and businesses use to deposit cash when traditional banking services fail.

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1. Introduction

Research and policy on access to cash in the UK has come a long way over the past five years and together with prominent campaigns have resulted in two key legislative victories proposed in Spring 2022 to protect access to cash[1] and the wholesale cash infrastructure.[2] Protecting access to cash is crucial for communities across the UK as many people continue to depend on cash and, despite a narrative of the UK fast becoming a cashless society, 2022 cash withdrawal volumes have recovered to their highest level since the beginning of the coronavirus pandemic in 2020.[3] Indeed, in the face of the rising cost of living, it has been reported that many consumers are turning back to cash to help them better manage their finances than they might otherwise be able to via card or using other electronic payments.[4]

Much research to-date has focused on cash withdrawals[5]; however, the implications that recent changes in cash infrastructure may have on deposit volumes have so far been little researched. Deposits are important to the overall cash cycle, helping to sustain communities' ability to withdraw and pay with cash at local businesses. Local shops, for example, need easy access to deposit facilities if accepting cash is to continue being viable. But as traditional infrastructures for depositing cash – typically bank branches – continue to disappear from high streets across the country, this function is under increasing threat. This may hasten the decline of cash and as a result may further impact communities that continue to rely on cash.

This report

In this report, we present findings on our analysis of the relationship between local bank branch closure and cash deposit volumes. To undertake this analysis, the Post Office (PO) provided us with data on weekly cash deposits at each of its more than 10,000 PO branch network for the post-lockdown period from April 2021 to March 2022.[6] The PO also provided us with lists of bank branches that had closed in the vicinity of POs from March 2021 to March 2022, which we use to determine whether a given PO was affected by a bank branch closure, how far it was from said closure and when the closure occurred. Putting this data together allows us to understand how deposit volumes at POs change as local bank branches disappear.

[1] HM Treasury (2022a) 'New powers to protect access to cash'.
[2] HM Treasury (2022b) 'Protecting UK wholesale cash infrastructure'.
[3] LINK (2022) 'Statistics and trends'.
[4] Gausden (2022) '42 per cent of consumers reliant on cash to help them budget during cost of living crisis'. *The i, 5th of June 2022*.
[5] See, for example: Tischer *et al* (2020 'Where to withdraw? Mapping access to cash across the UK'. Or more recent work from the FCA to map access to cash: Access to cash coverage in the UK 2021 Q4 | FCA
[6] The research was funded via the UKRI IAA scheme via the University of Bristol under the reference ES/M500410/1.

2. Findings

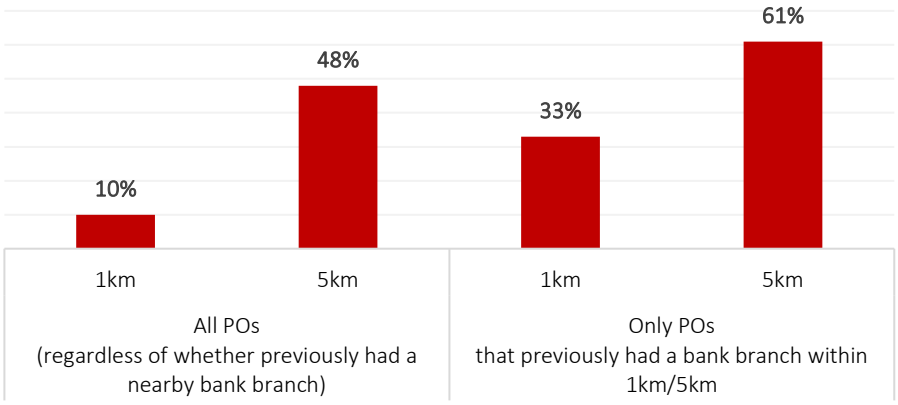
How many bank branch closures were there near to Post Offices?

To contextualise the impact of bank branch closures on cash deposits at POs, it is important first to understand how many POs were affected by nearby branch closures between April 2021 and March 2022.

At the start of this period, in April 2021, 21% of the 9,196 POs in our dataset had no bank branch within 5km while 71% had no branch within 1km.[7] At the end of this period, in March 2022, these figures remain relatively unchanged: 22% had no branches within 5km and 72% had none within 1km.

These figures, however, do hide a considerable number of bank branch closures. There was a total of nearly 800 bank branch closures in the dataset provided to us between April 2021 and March 2022. As Figure 1 shows, across all POs (regardless of whether they had originally had a nearby bank branch or not), one-in-ten (10%) saw a bank branch within 1km close, while nearly half (48%) saw at least one bank close within 5km. However, examining only POs that had at least one bank within 1km in April 2021, a third of those POs (33% or 2,640 POs) had lost at least one of these branches by March 2022. The equivalent figure if looking at a 5km radius is 61%.

Figure 1 – Percentage of POs that saw a nearby bank branch closure within 1 or 5km, by whether or not previously had a nearby bank branch



Notes: Base for first two columns is all Post Offices = 9,196; Base for third column is POs previously with a bank within 1km = 2,690; Base for fourth column is POs previously with a bank within 5km = 7,237.

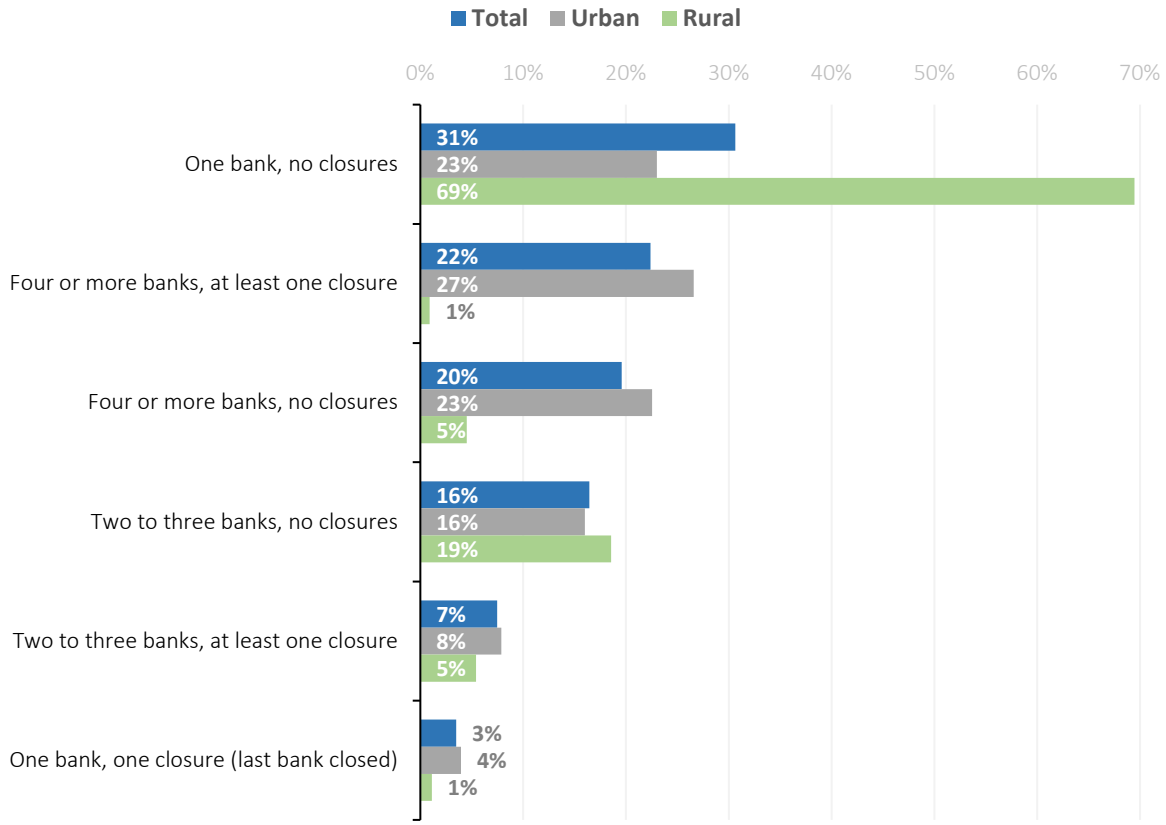
Figure 2 includes only those POs that had at least one bank within 1km at the start of our study period and shows how the local banking landscape changed (or remained the same) for these POs. it was much more likely that 'this last bank in town' would remain open (31% of POs) until the end of the study period than for it to close (3%). This was especially true in rural areas, with 69% of rural POs falling into the category of having one bank open at the start of the study period and having no closures throughout the following 11 months.

As Figure 2 shows, however, bank branch closures were more common in areas where there were already a relatively high number of banks operating. For example, 42% of POs with at least one bank within 1km had four or more banks within this distance and this is comprised of 22% that saw at least one closure and 20% that saw no closures.

Figure 3 meanwhile shows how the number of bank branches changed for POs that had at least one branch within 1km at the start. It reveals that by March 2022 4% of POs that had originally had one or more banks within 1km as of April 2021 no longer had one. This equates to a total of 94 POs that had lost all nearby bank branches (89 of which were in urban locations and 5 in rural areas).

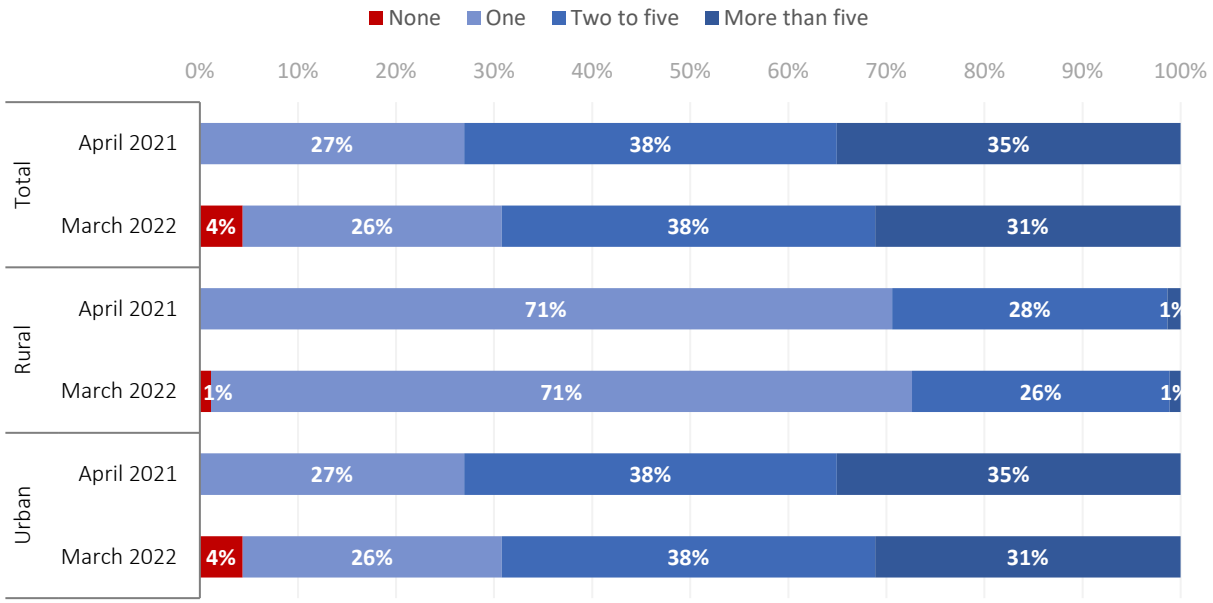
[7] Our final dataset includes only those POs based in England, Scotland and Wales, and excludes any that were closed for four or more weeks throughout the year.

Figure 2 – Percentage of POs that experienced changes to the local banking landscape, overall and by rural-urban split. Only includes POs with at least one bank branch within 1km as of April 2021.



Notes: Base is all those POs with at least one bank branch within 1km as of April 2021.
Total N = 2,690; Urban N = 2,248; Rural N = 442.

Figure 3 – Percentage of POs with different numbers of bank branches within 1km, as of April 2021 and March 2022. Only includes POs with at least one bank branch within 1km as of April 2021.



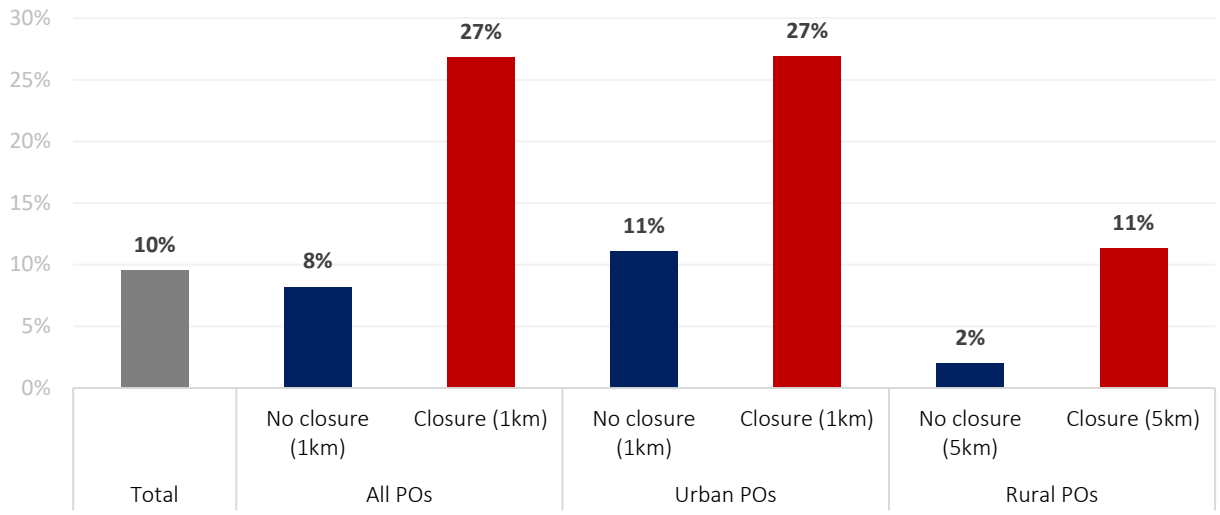
Notes: Base is all those POs with at least one bank branch within 1km as of April 2021.
Total N = 2,690; Urban N = 2,248; Rural N = 442.

How do PO cash deposit volumes change when a local bank branch closes?

Most POs saw an increase in cash deposits during our study period, with the median change in deposit volumes from April-June 2021 to January-March 2022 being growth of 10%. This likely reflects the changing economic situation as the UK emerged from lockdown; however, growth was not universal – with more than a quarter of POs seeing deposit volumes decrease over the course of the year.

Figure 4 highlights the difference in deposit changes between those POs affected by nearby bank branch closures and those unaffected. We find that the growth in deposit volumes was approximately three times higher for POs affected by a branch closure within 1km (27%) compared to those that saw no closure (8%). This relationship largely holds both in urban and rural settings, though overall deposit growth was generally lower for rural POs.

Figure 4 – Median percentage change in deposit volumes (between first 12 weeks post-lockdown (2021) and last 12 weeks of the 2021-22 financial year), by rural-urban status and whether there had been any bank branch closures within 1km/5km



Sample sizes as follows: Total = 9,196; All POs – no closure = 8,297; All POs – closure = 899; urban – no closure = 4,994; urban – closure = 866; rural – no closure = 2,960; rural – closure = 376.

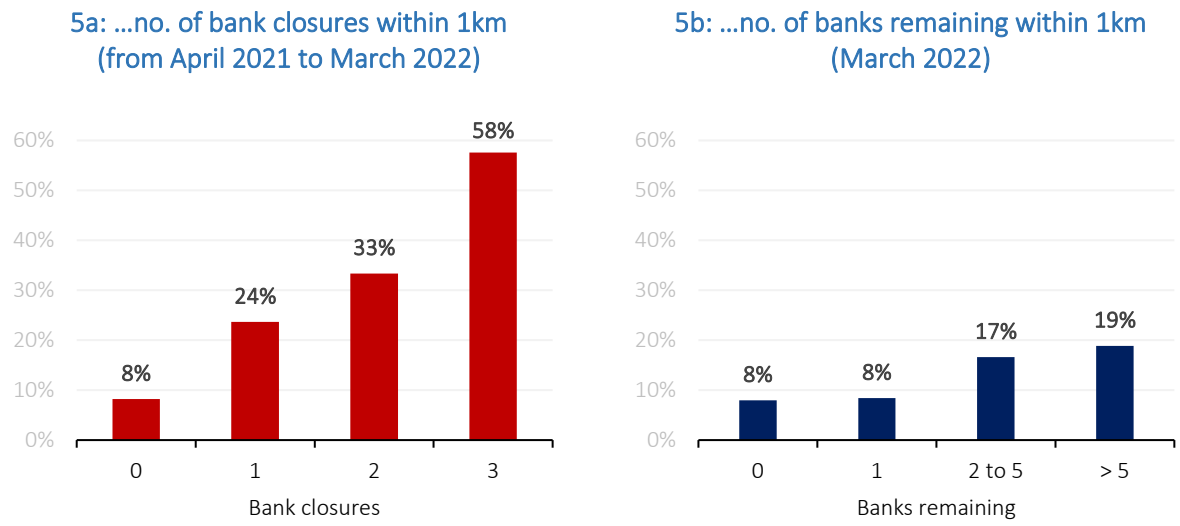
Similarly, we find that that proximity to retail centres has a positive impact on cash deposit volumes. For the quarter (28%) of POs located within a retail centre, we find that the increase in deposit volumes almost doubles to 14% (against 8%).[8] Interestingly, we see that 'town centres' outperformed 'major town centres' (26% growth, compared to 17%), but it is unclear whether this is related to these areas being more affected by the pandemic or whether other factors are at play. We also find that those POs within 150m of a pedestrianised area saw deposit growth of 16%, whereas this declines to 14% growth for those 150-500m from such an area and to 9% for those over 500m from a pedestrianised zone.[9]

Economic activity is clearly an important factor in changes in deposit growth over time and this is evident in the fact that deposit growth occurred not only where there had been more bank branch closures but

[8] POs within the boundaries of a retail centre. The retail centre boundaries were provided by the Consumer Data Research Centre, an ESRC data investment, under project ID CDRC 498-01, ES/L011840/1; ES/L011891/1.
[9] Pedestrianised areas have been identified using OpenStreetMap data, downloaded from geofabrik.de. We define a pedestrianised area as four or more pedestrian-only roads/tracks located no more than 100m from one another.

also where more bank branches still remained at the end of the study period. Whilst we do not know why local bank branches have disappeared, Figure 5a demonstrates that the closure of multiple bank branches does have a significant impact on median deposit volumes with an increase of 58% for POs with three or more bank closures compared to no bank branch closure which saw a more modest increase of 8%. However, we also find that the number of remaining banks has a positive, yet slightly less pronounced impact on deposit growth (Figure 5b): where at least two bank branches remained by March 2022 the median growth in deposit volumes was double that of those POs with no banks remaining or one bank remaining.

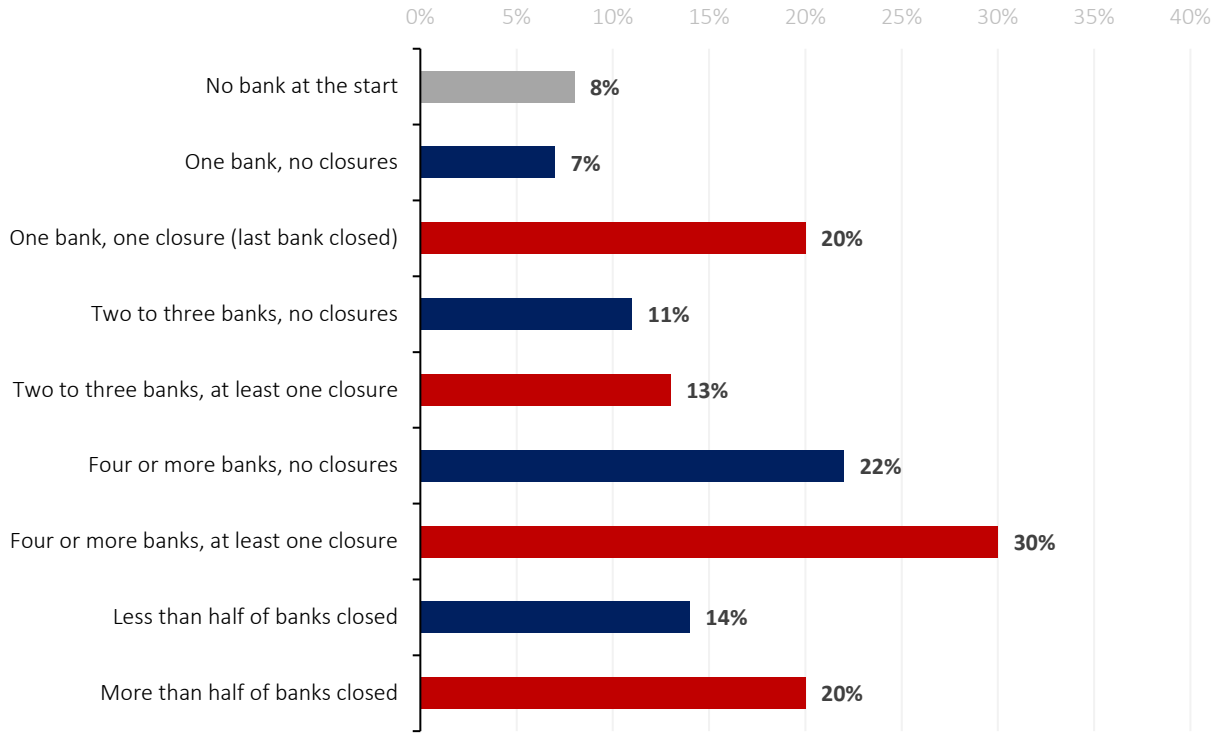
Figures 5a and 5b – Median percentage change in deposit volumes, by…



Sample sizes as follows: 5a – 0 closures = 8,297; 1 = 688; 2 = 162; 3 = 49. 5b – 0 remaining = 6,609; 1 = 910; 2 to 5 = 927; More than 5 = 705.

We conducted further analysis to explore how the interaction between the number of bank branches an area started with and how many closed throughout the year affects change in deposit volumes at local POs. As Figure 6 shows, in every scenario, bank branch closures drive median deposit volume percentage change upwards; however, the size of that effect differs across scenarios. Where the last bank branch in town closes, POs saw an increase in deposit volumes of 20% compared to where there had been no closures. This is 13 percentage points higher compared to the no closure scenario. Median deposit growth is also enhanced in situations in which at least half of an area's bank branches close. In scenarios in which more than four branches are within 1km of a Post Office and at least one branch closes, median growth figures are highest at 30% but the difference between closure and no closure events is less pronounced (22% vs 30%). This may be linked to a stronger recovery in deposit volumes in these areas post-Covid-19 with the opening up of local businesses. Higher rates for Post Offices in areas affected by bank branch closure may also be driven by the limits of substitution across bank branches. Customers of a closing bank branch cannot simply deposit funds at another bank unless they become a customer; however, they may deposit funds at a Post Office branch instead without having to open up a new personal or business account with another bank.

Figure 6 – Median percentage change in deposit volumes, by number of banks at start of April 2021 compared with the number that had closed by March 2022



Sample sizes as follows, in descending order: 6,504; 824; 94; 442; 201; 527; 602; 2,524; 166. The final two categories only include those POs which had at least one bank within 1km in April 2021.

The above scenarios were also included in regression modelling (shown in Figure 7) which allows us to control for other area characteristics, such as deprivation and the composition of the local population. For this, our outcome variable indicates whether or not a given PO saw a higher than expected rise in its deposit volume ranking relative to other POs.[10] The results reveal a strong association between bank closures and higher deposits:

- POs that had four or more banks within 1km and saw at least one closure having six times (O/R=6.15) the odds of being in the growth group (relative to POs which started with no banks). This contrasts with a non-significant result (O/R=1.30) for those POs with four or more banks but no closures.
- Similarly, those POs which saw the last bank within 1km close had double the odds (O/R=2.02) of being in the growth group, while the odds of growth were significantly decreased for those with one bank within 1km that remained open (O/R=0.69).
- With regards to the other control variables, deprivation and being in Scotland or Wales were found to lower the likelihood of a PO being in the growth group. All output area classifications had higher odds of growth compared with 'rural residents', but 'cosmopolitan' areas had the highest likelihood, followed by 'constrained city dwellers' and 'ethnicity central'.

[10] For this we calculated each POs average quintile position for the first 12 weeks of the study period and compared this to its average position for the last 12 weeks. POs that saw an increase which was more than one standard deviation from the average change for all POs were defined as seeing higher than expected growth. This gave a total of 1,061 POs with high growth.

Figure 7 – Results of binary logistic regression analysis which predicts the odds of a PO seeing higher than expected growth in deposit volumes relative to other POs

	Odds ratio	p-value	
Scenario (Ref = No banks, no closures)			
One bank, no closures	0.69	0.013	*
One bank, one closure (last bank closed)	2.02	0.011	*
Two to three banks, no closures	0.67	0.041	*
Two to three banks, one to three closures	3.18	0.000	**
Four or more banks, no closures	1.30	0.073	
Four or more banks, at least one closure	6.15	0.000	**
Deprivation quintile (Ref = Quintile 5, least deprived)			
Quintile 1 (most deprived)	0.40	0.000	**
2	0.62	0.000	**
3	0.64	0.000	**
4	0.84	0.114	
Output area classification (Ref = 1 - Rural residents)			
2 - Cosmopolitans	5.24	0.000	**
3 - Ethnicity central	3.49	0.000	**
4 - Multicultural metropolitans	2.79	0.000	**
5 - Urbanites	2.75	0.000	**
6 - Suburbanites	2.25	0.000	**
7 - Constrained city dwellers	3.70	0.000	**
8 - Hard-pressed living	3.01	0.000	**
Country (Ref = England)			
Scotland	0.71	0.009	**
Wales	0.59	0.001	**
Constant	0.06	0	

Sample size = 9,196. Statistical significance indicated by asterisks (* = p<0.05, ** = p<0.01). Nagelkerke R-Square = .146

Lastly, we examined how changes in deposit volumes at POs are impacted depending on the month that a local bank branch closed, as shown in Figure 8. Our analysis suggests that a branch closure in a given month is associated with an increase in deposit growth that or the following month at the PO, compared to those POs where no bank closure occurred. For example, where a bank branch closed in September 2021, POs experienced a 33% increase in deposit volumes (compared with April 2021) – whereas this figure was just 13% where no closures had taken place. Indeed, compared to the previous month (21% growth in August 2021) there was a 12 percentage point rise in growth (to 33% in September 2021), higher than the equivalent for September 2021 for other POs which had experienced bank closures but in different months. Similar percentage point rises are seen across the board in the month when a bank closure occurred. In other words, relative to those that *didn't* have a bank closure, those POs that experienced a nearby bank closure will have a bumper month whenever such a closure occurs.

Figure 8 – Percentage change in deposit volumes (relative to April 2021), by month in which a bank branch closure occurred within 1km. Black boxes indicate the month in which the closure occurred, while darker blue colours indicate greater rises in deposits.

% change in average weekly deposit volumes for month, compared with April 2021	Month of bank branch closure							
	No closures in any month	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
May-21	2	11	4	5	6	4	5	4
Jun-21	10	22	17	19	17	15	14	12
Jul-21	7	18	18	20	22	14	12	12
Aug-21	9	20	21	27	33	25	21	16
Sep-21	13	31	30	32	38	36	33	20
Oct-21	12	32	39	36	42	42	39	32
Nov-21	17	38	45	40	48	48	44	45
Dec-21	6	20	22	26	31	33	29	31
Jan-22	16	36	38	40	49	49	46	46
Feb-22	15	40	45	44	50	53	49	50
N	8,297	48	86	127	261	161	128	115

3. Conclusions

Collectively, this analysis gives evidence that POs pick up at least some of the slack in cash deposits when local bank branches close, despite the analysis being somewhat complicated by post-lockdown trends as economic activity picked back up in urban centres. This highlights the importance of maintaining local infrastructure that enables businesses to continue to accept cash, but also raises questions about the longer-term sustainability of this practice. While POs have so far absorbed cash deposits, questions remain over whether there are limits to how much cash it can process, how many customers it can serve, and whether some PO premises are better suited to this activity than others. Investment in PO branches will play an important role in determining how well such services operate for consumers and businesses.

It is welcome that the Post Office and 30 major banks announced signing the Banking Framework 3 agreement in January 2022, which will run for three years from January 2023 to the end of 2025.[11] What happens after this point, however, remains unclear, given that it has been reported that some expect this to be the last banking framework signed due to ongoing lower demand for cash.[12]

Moreover, it is unknown how future banking hubs will affect bank branch closure and, therefore, demand for withdrawal and deposits services at Post Offices. Whilst it may alleviate pressures in POs nearby a newly installed banking hub, it may also lead to additional closure of bank branches across the UK and thus increase demand for services delivered by the PO. If the latter becomes the case, further investments in POs may be required to assure that communities do not lose access to cash services.

Further research ultimately needs to consider the extent to which such arrangements work for those depositing money – whether this be businesses or consumers – and what the outcomes are for consumers who prefer to or need to pay in cash. This will be increasingly important as the cost of living crisis bites and many turn to cash to help them better manage their budgets.

[11] See: Post Office announces continued 'lifeline' for businesses and communities that rely on cash with new banking agreement | Post Office Media (mynewsdesk.com)
[12] See: Post Office Inks Deal to Continue Banking Services for 3 Years (moneyexpert.com)