

## Merchant Transactions Through Digital Payments

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### Abstract

To promote small ticket debit card and Unified Payments Interface (UPI) merchant transactions up to Rs. 2000, the government during the calendar years 2018 and 2019 made merchant discount rate (MDR) zero for the merchants. In contrast, effective January 1, 2020, the government made MDR zero for UPI and RuPay debit card transactions. Neither merchants nor the government paid the banks any MDR for such UPI and RuPay based merchant transactions. However, banks were allowed to impose MDR onto the merchants for every transaction using mastercard/VISA debit cards.

This report provides a follow-up of the conclusions drawn in an earlier IIT Bombay Technical Report (October 2021) “Merchant transactions through debit cards” <http://dspace.library.iitb.ac.in/jspui/handle/100/36651>. We assess the trends and progress of debit card usage since November 2019. Though the Covid-19 pandemic has distorted the trends in two spells (waves 1 and 2), our objective here is to get a general feel of the possible impact of MDR, on debit card usage. Based on data sources of RBI, DFS and, NPCI, we mine some interesting statistics.

With RBI’s prohibition for auto-debit payments in recurring transactions and the upcoming restrictions for storage of debit card details by merchants, it is bound to create enough friction for people to move towards alternative payment means like the UPI. It is expected that such risk-mitigating measures taken by RBI would act as a catalyst to see people migrating from debit cards to UPI.

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### 1. Introduction

Debit cards and mobile Apps are provided by banks to facilitate account holders to withdraw cash at ATMs and carry out merchant transactions. The debit cards are primarily issued under one of the three card schemes – mastercard, VISA, or RuPay. Historically, card payments for merchant transactions had a well-defined revenue-generating structure for banks, where the revenue came from Merchant Discount Rate (MDR). Among the mobile Apps based payments system, Unified Payments Interface (UPI) is the most successful and accepted mode of digital payments.

#### 1.1. The history of MDR regulation in India

In September 2012, the Reserve Bank of India (RBI) mandated a debit card MDR cap at 0.75%, for transactions valued up to Rs. 2000, and 1%, for transactions valued above Rs. 2000. This continued till November 8, 2016.

Immediately after the November 8, 2016 demonetization of the specified bank notes, the government instructed the banks to temporarily waive MDR imposed on merchants.

As an interim measure RBI, effective January 1, 2017, rationalized the MDR on debit cards. RBI set an MDR cap at (i) 0.25%, for transactions valued up to Rs. 1000, (ii) 0.5%, for transactions valued in excess of Rs. 1000 but not exceeding Rs. 2000, and (iii) 1%, for transactions valued in excess of Rs. 2000. RBI's new caps on debit card MDR were a substantial reduction to the RBI's pre-demonetization cap of 0.75% for transactions valued up to Rs. 2000.

Subsequently, effective January 1, 2018, RBI tweaked MDR rules claiming that such tweaks would encourage some small businesses to accept debit card payments. For businesses with annual turnover below Rs. 20 lakh, RBI capped the debit card MDR at 0.4% of transaction value or Rs. 200, whichever is lower. For others, *i.e.*, businesses with an annual turnover of Rs. 20 lakh or more, the debit card MDR was capped at 0.9% of the transaction value or Rs. 1000, whichever is lower. For QR-code-based debit card acceptance, the MDR caps were set 10 basis points lower than the physical point-of-sale (POS) and online debit card acceptance infrastructure.

In parallel, effective January 1, 2018, the government made MDR zero for the merchants and decided to bear the MDR cost for two years on all debit card and UPI transactions valued up to Rs. 2000. However, for the banks, the government fixed the POS- and online-based MDR at 0.4% for debit card and UPI transactions up to Rs. 2000. In effect, due to the government's intervention, RBI's decision to allow banks to charge up to 0.9% as debit card MDR for businesses with an annual turnover of Rs. 20 lakh or more (even for transaction amounts less than Rs. 2000), got overruled and the banks got only 0.4% as MDR for such sub Rs. 2000 ticket debit card transactions.

Corresponding to this government-provided-MDR of 0.4%, the interchange fixed by card payment networks had been 0.15%. Thus, RBI's MDR mandates could never get implemented since the government felt otherwise on small ticket transactions up to Rs. 2000, reducing the MDR to zero for all merchant categories.

In fact, the National Payments Corporation of India (NPCI) was the only card network to adopt an MDR that was lower than the MDR-cap set by RBI. The MDR pricing structure arrived at (effective October 2019) for RuPay debit cards had been 0.4% (0.3% when the transaction is QR-code based) for transactions up to Rs. 2000 and 0.6% (0.5% when the transaction is QR-code based) for transactions exceeding Rs. 2000, with a ceiling on MDR of Rs. 150 for any transaction. For transactions exceeding Rs. 2000, RuPay's 0.6% MDR applied only to businesses with an annual turnover of Rs. 20 lakh or more (*vis-à-vis* RBI's MDR cap of 0.9%).

## **1.2. The present avatar of MDR**

Effective January 1, 2020, the government decided not to bear MDR any further on all debit card transactions valued up to Rs. 2000. In effect, due to this decision, RBI's mandate got re-invoked and banks got the leverage to charge MDR @ 0.9% or less from businesses with an annual turnover of Rs. 20 lakh or more for transactions of any value. Furthermore, for businesses with an annual turnover of less than Rs. 20 lakh, banks got the freedom to impose an MDR of 0.4% or less.

Nevertheless, the government simultaneously brought in a new law where RuPay debit card and UPI had been identified as a prescribed payment mode for which banks and system providers could no longer charge any fee to the merchants. Consequently, any charge, including the MDR, was no longer applicable on payments made through RuPay debit cards and UPI.

However, the government effective April 1, 2021, started to fund towards paying MDR to acquiring banks. All RuPay debit card transactions received 0.4% MDR capped at Rs. 100 for one year starting since April 2021. Also, low-value UPI (or BHIM-UPI) transactions (upto Rs. 2,000) received 0.25% MDR for one year starting since April 2021. These rates were further reduced for Industry Programmes.

Banks were reimbursed 95% of their claimed amount in each quarter of the scheme. To get the remaining 5% of each quarter, every bank was required to show at least a 50% y-o-y growth rate in the number of BHIM- UPI transactions and a 10% y-o-y growth rate in the number of RuPay debit card transactions at the end of last quarter of the scheme. In general, the banks were to achieve this target to pocket the 5% of the monetary support totaling around Rs. 60 Cr. The February 2022 budget announcement mentions about continuation of the financial support towards MDR in 2022-23.

## **2. Trends and Progress of Indian Payment Modes**

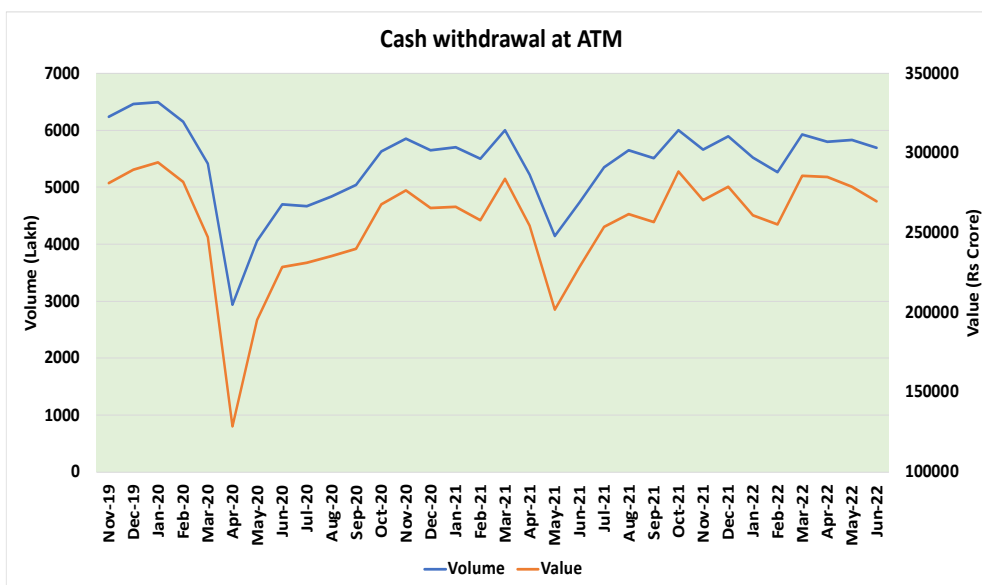
Debit cards are extensively used by bank account holders towards cash withdrawals at ATMs. Currently, RBI and banks are absorbing significant costs while providing cash as a prominent mode of payment. There is a need to arrest RBI's promotion of free excessive cash by mandating significant amounts of free ATM cash withdrawals. Such arrests would not only reduce cash handling costs for the banks but also save enough to support digital payments.

### **2.1. Cash from ATM**

Cash is predominantly promoted in India with 8 to 10 free ATM withdrawals per month. This potentially amounts to bank's disbursement of at least Rs. one lakh of free cash per month to an individual holding a bank account. Starting November 2019, RBI, in its monthly ATM data dissemination, has started reporting cash withdrawals at ATMs using debit cards, instead of debit card usage at ATMs.

Figure 1 shows how the cash withdrawal at ATMs using debit cards behaved during the period November 2019 – June 2022. The periods March-May 2020 and April-June 2021 show the effects of Covid-19 waves.

But for RBI's mandate allowing a significant amount of free ATM cash withdrawals for many bank customers, technically speaking, banks would not have incurred such avoidable and non-remunerating expenses. There is nothing that RBI appears to have done as a deterrent, which strongly prompts a reduction of large amounts of free ATM cash withdrawals in a month. Digital payment modes are now amply available (especially, in tier I and II cities) where large and frequent cash is still in use. RBI advocating banks to charge a reasonable fee, in a tiered fashion, for total cash withdrawals in excess of a reasonable amount per month, could create enough deterrents. Such a move would allow generating desirable revenue for the banks to meet their cash handling costs and to provide support towards costs in maintaining digital payments infrastructure.



Source: RBI

**Figure 1: Cash withdrawal at ATM using debit cards**

**2.2. Merchant transactions using debit cards**

Starting November 2019, RBI, in their monthly bulletin, is disseminating bifurcated card transaction data comprising POS and ‘others’. For debit cards, ‘others’ primarily include E-com transactions, card-to-card transfers, and digital bill payments through ATMs. The same bulletin also publishes the Cash Withdrawal data. Furthermore, a combined POS cum E-com cum Cash Withdrawal data is provided in the monthly “Bank-wise ATM/POS/Card Statistics” that RBI releases. Based on these data sources, we derive the extent of E-com transactions. Table 1 and Table 2 provide the debit card transaction volume and value, respectively, for POS, E-Com, and Cash Withdrawals.

**Table 1: Debit card transactions (Volume) and the extent of E-com transactions**

Volume (Lakh)	POS	E-Com	Cash Withdrawal	POS + E-Com + Cash Withdrawal
Nov-2019	2483	1690	63	4236
Dec-2019	2634	1806	71	4512
Jan-2020	2587	1905	92	4584
Feb-2020	2456	1781	59	4297
Mar-2020	1925	1676	31	3632
Apr-2020	676	1371	36	2083
May-2020	1121	1528	36	2686
Jun-2020	1475	1518	28	3021
Jul-2020	1462	1691	31	3184
Aug-2020	1647	1733	28	3409
Sep-2020	1759	1741	29	3529
Oct-2020	1984	1940	29	3953
Nov-2020	2113	1645	32	3790
Dec-2020	2165	1622	35	3822
Jan-2021	2132	1560	31	3723
Feb-2021	2009	1430	20	3458
Mar-2021	2229	1526	19	3774
Apr-2021	1794	1412	19	3225
May-2021	1128	1422	18	2568
Jun-2021	1505	1434	7	2946
Jul-2021	1902	1496	6	3404
Aug-2021	2120	1461	6	3586
Sep-2021	2053	1430	5	3488
Oct-2021	2303	1543	4	3850
Nov-2021	2112	1288	4	3404
Dec-2021	2203	1289	4	3496
Jan-2022	1925	1261	2	3188
Feb-2022	1845	1104	2	2952
Mar-2022	2078	1190	2	3270
Apr-2022	2132	1174	2	3308
May-2022	2150	1163	2	3316
Jun-2022	2013	1079	2	3095

\*POS + eCom + CashWithdrawal = Total number of financial transactions done by the debit card at POS terminals

\*E-Com may include some failed transactions

Source: RBI/NPCI and authors' computation

**Table 2: Debit card transactions (Value) and the extent of E-com transactions**

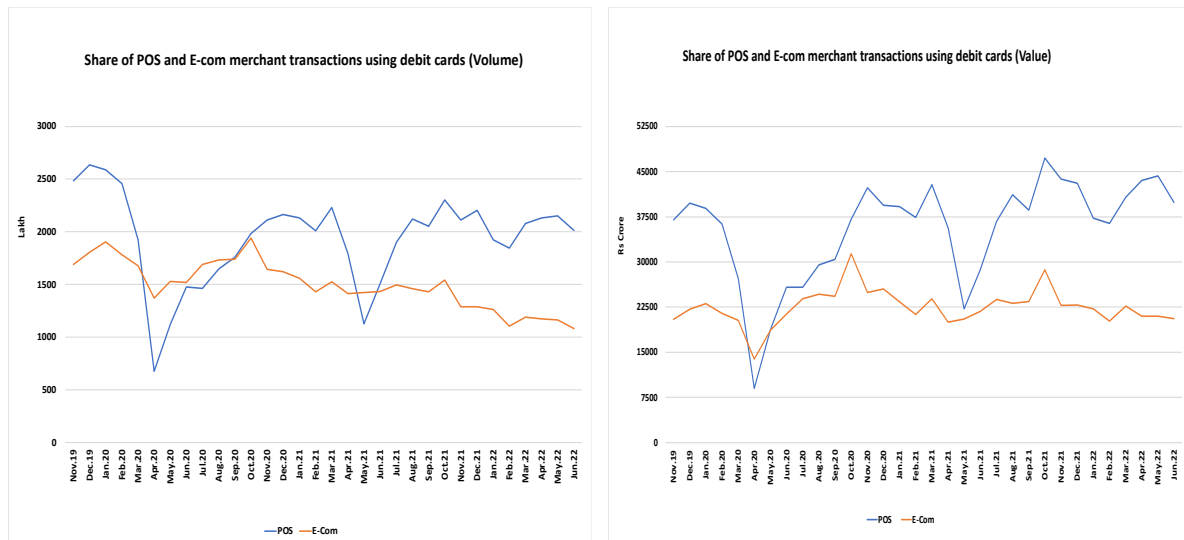
Value (Rs Crore)	POS	E-Com	Cash Withdrawal	POS + E-Com + Cash Withdrawal
Nov-2019	37007	20453	129	57590
Dec-2019	39740	22124	134	61998
Jan-2020	38907	23083	163	62154
Feb-2020	36258	21450	132	57841
Mar-2020	27238	20303	105	47646
Apr-2020	9005	13887	105	22998
May-2020	18814	18692	116	37622
Jun-2020	25788	21354	114	47256
Jul-2020	25821	23886	132	49840
Aug-2020	29525	24624	129	54277
Sep-2020	30422	24307	118	54847
Oct-2020	37110	31352	129	68591
Nov-2020	42289	24931	137	67357
Dec-2020	39437	25513	142	65093
Jan-2021	39189	23369	135	62693
Feb-2021	37414	21255	114	58783
Mar-2021	42816	23889	114	66819
Apr-2021	35621	20006	111	55739
May-2021	22195	20523	102	42820
Jun-2021	28743	21789	44	50576
Jul-2021	36764	23792	43	60599
Aug-2021	41177	23132	42	64352
Sep-2021	38591	23443	40	62074
Oct-2021	47226	28672	39	75937
Nov-2021	43750	22814	39	66603
Dec-2021	43062	22852	35	65949
Jan-2022	37274	22201	20	59495
Feb-2022	36376	20180	20	56576
Mar-2022	40770	22687	21	63479
Apr-2022	43530	21007	22	64558
May-2022	44273	21006	22	65300
Jun-2022	39877	20567	22	60466

\*POS + eCom + CashWithdrawal = Total number of financial transactions done by the debit card at POS terminals

\*E-Com may include some failed transactions

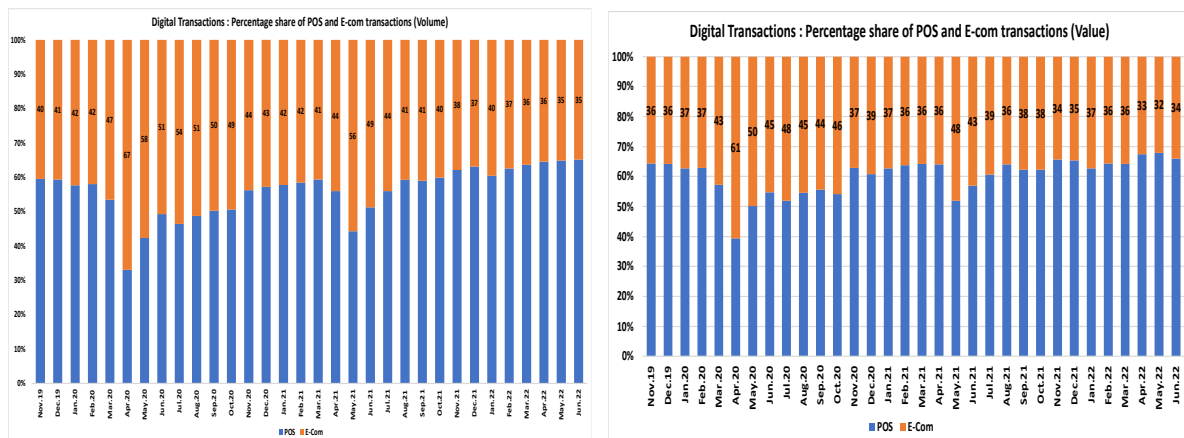
Source: RBI/NPCI and authors' computation

The extent of POS usage vis-à-vis E-Com indicates that POS still contributes more than E-Com. Figures 2 and 3 show the extent of POS vis-à-vis E-Com transactions.



Source: RBI

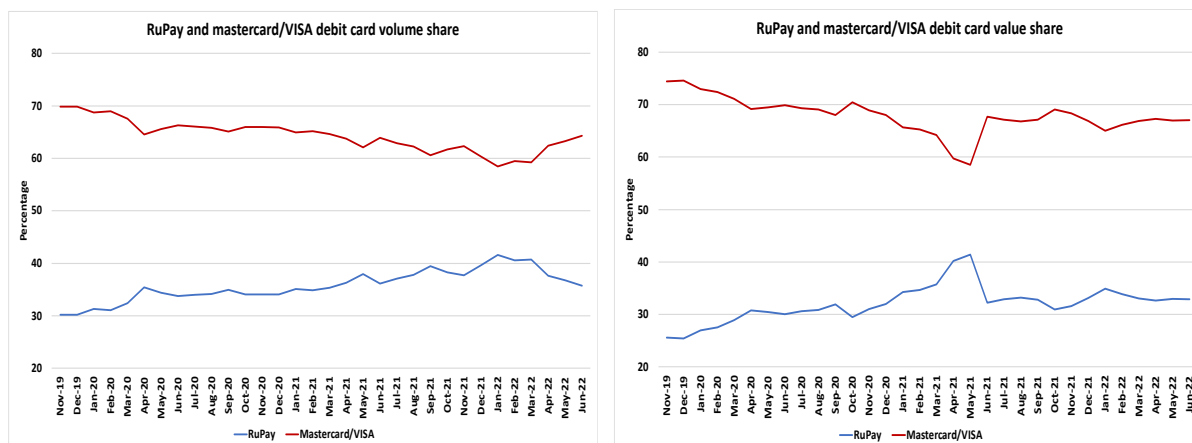
**Figure 2: Share of POS and E-com merchant transactions using debit cards**



Source: RBI

**Figure 3: Percentage share of POS and E-Com transactions using debit cards**

For the period November 2019 – June 2022, Figure 4 shows the extent of debit card transactions using RuPay and mastercard/VISA. Except for the recent months, both in volume and value terms, the share of RuPay transactions vis-à-vis mastercard/VISA had been consistently growing. With RuPay cards being primarily issued to accounts opened under the Pradhan Mantri Jan-Dhan Yojana (PMJDY), this relative growth in RuPay transactions could be attributed to the decline in discretionary expenditure of the urban population due to Covid-19 lockdowns. There was a fall in transactions by the non-PMJDY account holders (urban affluent/middle class) holding mastercard/VISA debit cards rather than RuPay debit cards, linked to PMJDY accounts.



Source: RBI and NPCI

**Figure 4: Percentage share of RuPay and mastercard/VISA transactions**

### 3. Performance of RuPay Debit Cards

Though the zero MDR for RuPay debit cards will lead to some savings for merchants, an important question remains as to whether it would serve the purpose of promoting card payments in the presence of merchants still being overburdened by the fee for accepting other debit cards. Note that for mastercard/VISA, effective January 1, 2020, the merchants no longer enjoy zero MDR on transactions up to Rs. 2000.

As it stands now, mastercard/VISA have been provided open grounds to see the promotion of their cards and demotion of RuPay cards. The lack of a level playing field would only give more earnings for mastercard/VISA at the cost of equitable promotion of RuPay.

If there is a revenue differential for banks between RuPay and mastercard/VISA, banks would always, in their commercial interest, tend to promote that card scheme which generates more revenue for them. DFS disseminates data to reflect the progress report of PMJDY. The time-series data is released every Wednesday updating information on the number of accounts opened under PMJDY, and RuPay debit cards issued. We have used this data to show monthly status. We take data points for every Wednesday of a month falling between the 1st through 9th of each month. Such monthly data points are used to reflect the status at the end of the previous month and are shown in Table 3.

During the one-year period early-July 2019 through end-June 2020, there had been a net issuance of about 376 lakh RuPay debit cards, and about 107 lakh accounts were added under the PMJDY. In contrast, for the subsequent two corresponding tenures, we see a subdued issuance of RuPay debit cards despite a fair number of PMJDY accounts being added.

**Table 3: PMJDY accounts added vs RuPay debit cards issued**

1-Year Periods	PMJDY accounts added (Lakh)	RuPay debit cards issued (Lakh)
Jul'19-Jun'20	376	107
Jul'20-Jun'21	282	161
Jul'21-Jun'22	331	72

The expanding gap between the new PMJDY accounts added and the RuPay debit cards issued gets clearly reflected in Figure 5. Unless there are other extraneous causes (*e.g.* Covid-

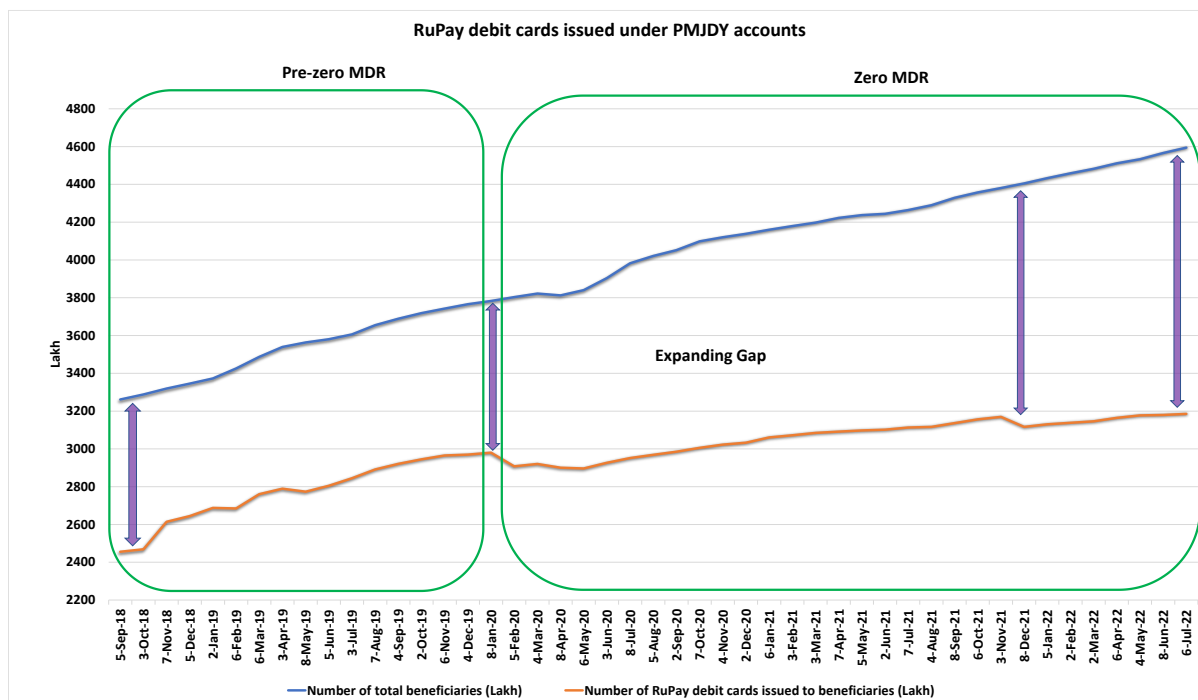


19, etc.), a possible cause for such a trend could be that banks have deliberately moved away from RuPay to promote a card scheme that generates more revenue for them.

**Table 4: Progress-report of the PMJDY**

Month-end	Date	Number of total beneficiaries (Lakh)	Deposits in Accounts (Rs Crore)	Number of RuPay debit cards issued to beneficiaries (Lakh)
Aug-18	05-Sep-18	3261.32	82490.98	2455.76
Sep-18	03-Oct-18	3288.15	85378.60	2468.74
Oct-18	07-Nov-18	3319.38	84689.14	2614.14
Nov-18	05-Dec-18	3345.73	84814.54	2644.28
Dec-18	02-Jan-19	3372.82	87033.42	2687.97
Jan-19	06-Feb-19	3425.59	90217.40	2684.60
Feb-19	06-Mar-19	3487.23	93567.18	2760.37
Mar-19	03-Apr-19	3539.37	97665.66	2789.45
Apr-19	08-May-19	3563.56	98437.41	2773.39
May-19	05-Jun-19	3580.65	98473.68	2804.63
Jun-19	03-Jul-19	3606.19	100495.95	2844.92
Jul-19	07-Aug-19	3654.99	101879.34	2891.29
Aug-19	04-Sep-19	3688.91	102645.70	2920.83
Sep-19	02-Oct-19	3718.79	104698.00	2944.79
Oct-19	06-Nov-19	3742.26	106846.62	2964.93
Nov-19	04-Dec-19	3765.89	107904.11	2969.97
Dec-19	08-Jan-20	3782.80	111714.82	2979.83
Jan-20	05-Feb-20	3803.55	114569.13	2907.57
Feb-20	04-Mar-20	3822.12	117015.50	2920.43
Mar-20	08-Apr-20	3812.33	127748.43	2900.63
Apr-20	06-May-20	3840.51	131825.49	2896.55
May-20	03-Jun-20	3904.20	131339.59	2926.80
Jun-20	08-Jul-20	3982.42	131576.08	2951.62
Jul-20	05-Aug-20	4021.08	129719.63	2968.33
Aug-20	02-Sep-20	4052.07	129929.28	2985.34
Sep-20	07-Oct-20	4098.43	130360.53	3005.84
Oct-20	04-Nov-20	4120.33	131639.95	3022.42
Nov-20	02-Dec-20	4138.33	130932.33	3032.60
Dec-20	06-Jan-21	4159.88	135739.52	3060.49
Jan-21	03-Feb-21	4179.27	138425.52	3072.07
Feb-21	03-Mar-21	4197.34	139668.24	3084.69
Mar-21	07-Apr-21	4222.29	146084.99	3091.64
Apr-21	05-May-21	4237.00	143814.60	3097.89
May-21	02-Jun-21	4244.18	144525.39	3101.61
Jun-21	07-Jul-21	4263.94	144277.46	3112.95
Jul-21	04-Aug-21	4289.49	143834.57	3116.60
Aug-21	08-Sep-21	4328.89	145050.76	3136.36
Sep-21	06-Oct-21	4357.21	145811.5	3156.18
Oct-21	03-Nov-21	4380.78	148935.05	3169.07
Nov-21	08-Dec-21	4405.04	147812.21	3116.61
Dec-21	05-Jan-22	4432.71	154916.47	3130.10
Jan-22	02-Feb-22	4458.28	157649.71	3138.07
Feb-22	02-Mar-22	4482.11	160839.87	3145.96
Mar-22	06-Apr-22	4511.16	167812.71	3163.98
Apr-22	04-May-22	4532.98	166803.08	3177.36
May-22	08-Jun-22	4566.08	170010.91	3179.67
Jun-22	06-Jul-22	4594.57	171802.13	3185.02

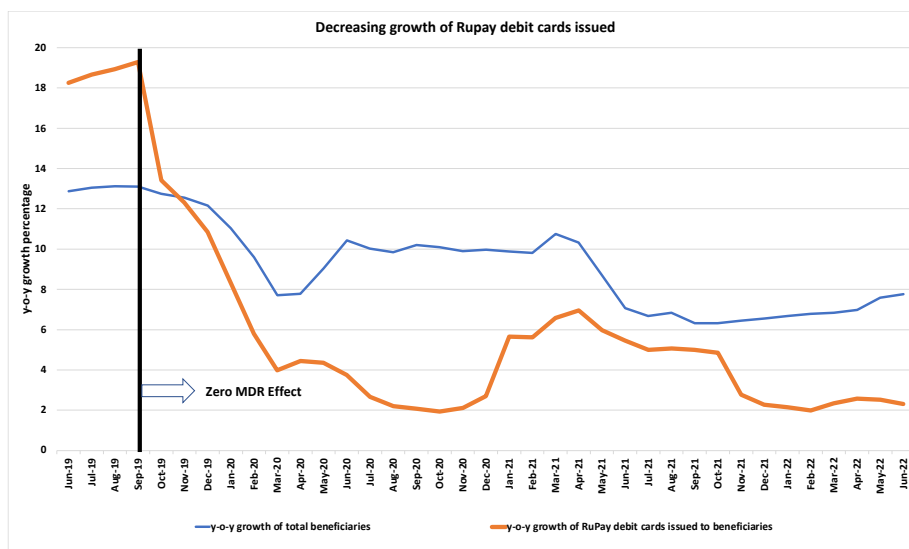
Source: Data submitted to DFS, Ministry of Finance, by Public Sector Banks, Regional Rural Banks and Major Private Sector Banks



Source: Table 4

**Figure 5: RuPay debit card issued against the PMJDY accounts opened**

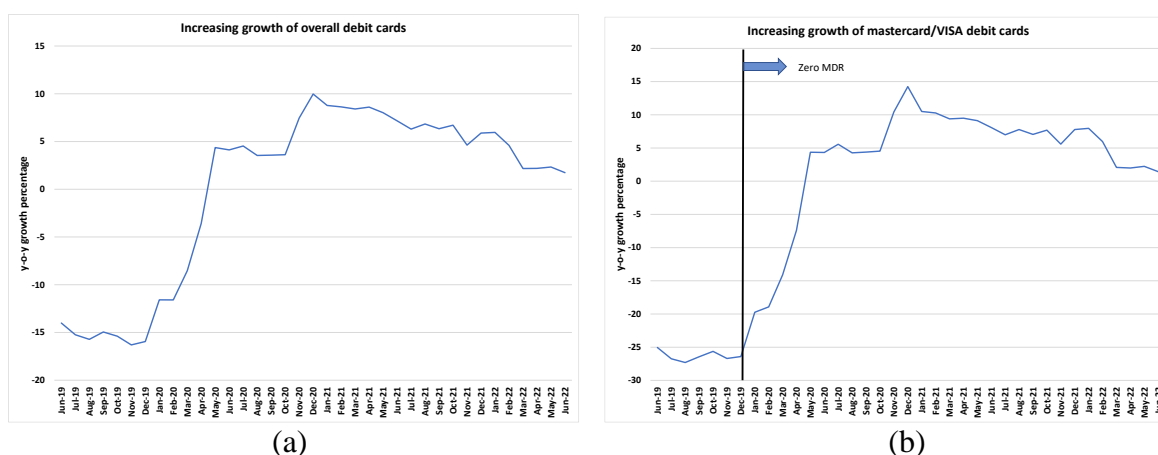
We now look at the y-o-y growth of RuPay cards issued and new accounts opened under the PMJDY. Starting early-September 2019, when the y-o-y growth of RuPay debit cards issued under the PMJDY was 18.9%, there has been a significant reduction in the y-o-y growth of RuPay debit cards. The early-September 2020 y-o-y growth has drastically reduced to 2.2%. This recovered a bit with the early-September 2021 y-o-y growth being 5.0% but has now returned to the older trend of descent with early-July 2022 y-o-y growth being 2.3%. The consistent decrease in the y-o-y growth since September 2019 is clearly depicted in Figure 8. In contrast, if one looks at the y-o-y growth of new PMJDY accounts opened, the figures for early-September 2019, early-September 2020, early-September 2021, and early-July 2022 are 13.1%, 9.8%, 6.8%, and 6.8%, respectively. Thus, though y-o-y growth of new PMJDY accounts opened had been relatively consistent, in comparison, the drastic downward y-o-y growth of RuPay debit cards issued is possibly a zero MDR effect.



Source: Table 4 and authors' computation

**Figure 6: y-o-y growth of RuPay debit cards issued against PMJDY accounts opened**

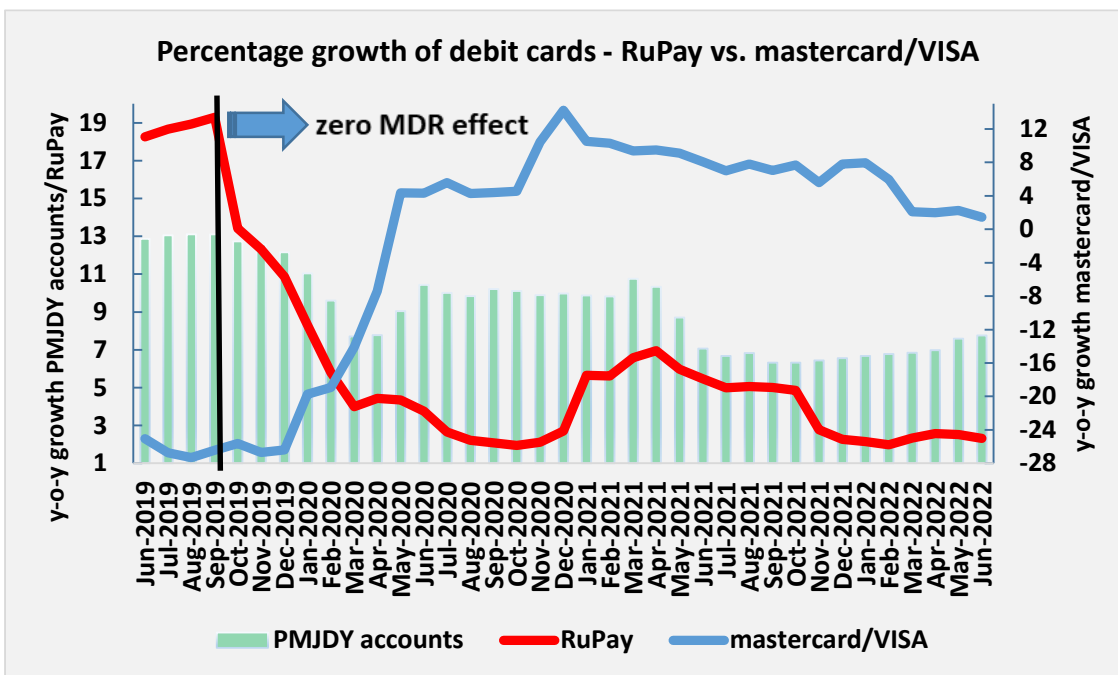
To assess the correct status of RuPay debit cards, we compare the extent of RuPay debit cards issued (under the PMJDY) against the overall debit cards outstanding. We consider the period since June 2019. Unlike a general decline in y-o-y growth of Rupay debit cards issued under the PMJDY, Figure 7(a) shows that there is a sharp uptick in y-o-y growth of overall debit cards outstanding (includes mastercard, VISA, and RuPay). Though implicit, inherently this showcases that there is a consistently increasing y-o-y growth of mastercard/VISA (Figure 7(b)) as against a consistently decelerating y-o-y growth of RuPay debit cards. During the recent months, the y-o-y growth of mastercard/VISA debit cards is above 2% with RuPay showing similar growth but this could still be due to their dwindling past numbers. We say this since, between the share of RuPay and mastercard/VISA, mastercard/VISA still has a significant share as we see below.



Source: RBI/DFS and authors' computation

**Figure 7: y-o-y growth of (a) overall debit cards, and (b) mastercard/VISA debit cards**

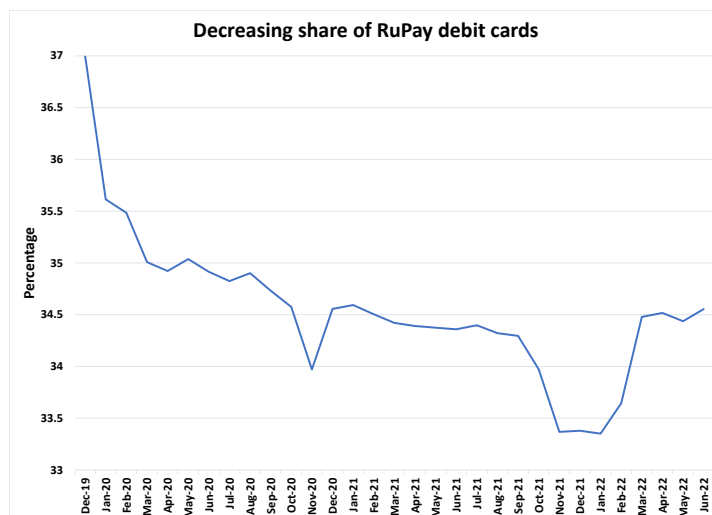
A comparative picture of growth in PMJDY accounts and RuPay/mastercard/VISA is presented in Figure 8.



Data Source: Table 4 and Figure 7

**Figure 8: A comparative picture of growth in PMJDY accounts and RuPay/mastercard/VISA**

Finally, in Figure 9, we show that the percentage share of RuPay debit cards issued under the PMJDY among the total debit cards outstanding has been consistently declining since December 2019. These data and charts showcase the negative impact of zero MDR on RuPay debit cards issued (at least for those issued under the PMJDY) and the unintended thrust that it provided to mastercard/VISA.



Source: RBI/DFS and authors' computation

**Figure 9: Share of RuPay debit cards issued (PMJDY) among the total debit cards outstanding**

With merchants' preference for debit card acceptance not being quite guided by debit card MDR alone, for the payments industry, the supply of RuPay debit cards by the producers (banks) would be impacted due to differentiated administered pricing on MDR. The administered MDR pricing for RuPay is zero while for mastercard/VISA it is 0.4-0.9%. In

presence of such an imbalanced administered pricing, and with merchants' preference for card acceptance also being guided by considerations other than debit card MDR, the supply of debit cards by banks gets appositely restricted to products (mastercard/VISA) that generate higher MDR (interchange) or revenue for them, and as a result, the same is being promoted by the banks. Because of the twin administered pricing, competition is not resulting in an identical spread of the debit card products, leading to a welfare loss to the society in form of (i) merchants' and consumers' depleting choice to harness the benefits of zero MDR on RuPay (due to lack of adequate supply of RuPay debit cards), and (ii) banks no longer having the capacity to produce RuPay as a means for merchant payments (due to commercial considerations).

The debit card MDR alone has a limited impact in determining a merchant's choice or preference for acceptance of a particular card (over cash) as it is just one of the few other costs associated with card acceptance. Where cash is an alternative and where the merchant attaches significance to 'cost to merchant', even if debit card MDR is zero, the merchant should think twice to agree to accept cards. This is so since he has to pay for (i) the high credit card MDR @ 2-4% and (ii) the high monthly rentals in the range of Rs. 200-600 for point-of-sale (POS) terminals, etc. Thus, the preference for debit card acceptance by the merchant is not quite guided by debit card MDR alone since there exist other deterrents, for many small and medium merchants.

For the payments industry, the supply of RuPay debit cards by the producers (banks) would be impacted due to differentiated administered pricing on MDR. The administered MDR pricing for RuPay is zero while for mastercard/VISA it is 0.4-0.9%. In presence of such an imbalanced administered pricing, and with merchants' preference for card acceptance also being guided by considerations other than debit card MDR, the supply of debit cards by banks gets appositely restricted to products (mastercard/VISA), which generate higher MDR (interchange) or revenue for them, and as a result, the same is promoted by the banks. Because of the twin administered pricing, competition is not resulting in an identical spread of the debit card products, leading to a welfare loss to the society in form of (i) merchants' and consumers' depleting choice to harness the benefits of zero MDR on RuPay (due to lack of adequate supply of RuPay debit cards), and (ii) banks no longer having the capacity to produce RuPay as a means for merchant payments (due to commercial considerations).

#### **4. Current Policy Impacts**

Starting April 1, 2021, the government funded around Rs. 1,300 crore towards paying MDR to acquiring banks. All RuPay debit card transactions received 0.4% MDR capped at Rs. 100 for one year starting since April 2021. Also, low-value BHIM-UPI transactions (up to Rs. 2,000), received 0.25% MDR for one year starting since April 2021. For Industry Programmes, these rates were further reduced.

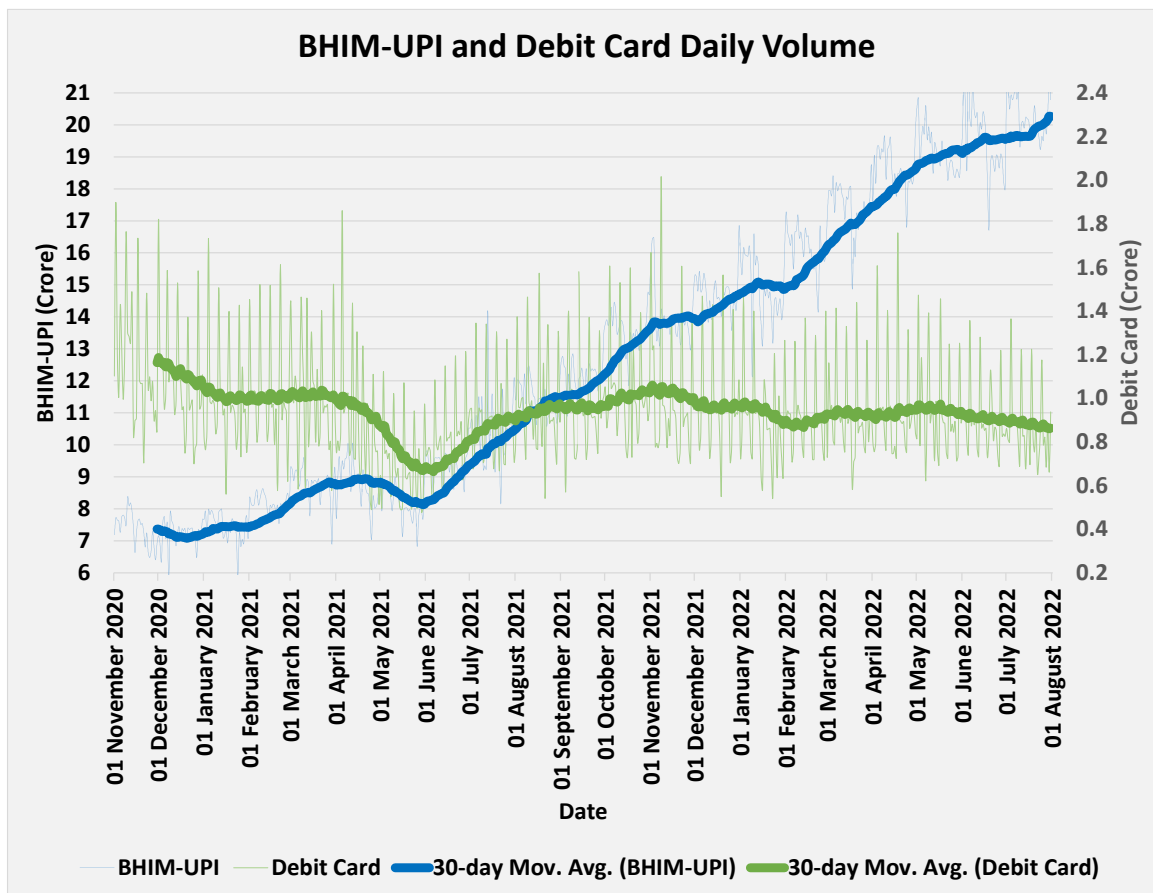
Each bank was reimbursed 95% of its claimed amount in each quarter of the scheme. To get the remaining 5% of each quarter, every bank was required to show at least a 50% y-o-y growth rate in the number of BHIM- UPI transactions and a 10% y-o-y growth rate in the number of RuPay debit card transactions at the end of last quarter of the scheme. In general, the banks were to achieve this target to pocket the 5% of the monetary support totalling around Rs. 60 Cr. The February 2022 budget announcement mentions about continuation of the support in 2022-23.

### 4.1. Debit cards unparalleled to BHIM-UPI

Mastercard/VISA debit cards generating revenue through MDR may be unfair for RuPay, but this is just the beginning. It is likely that the present approach is only a temporary measure to test how the card payments market responds. We see that the asset-lite mobile phone-based BHIM-UPI is cannibalising the payments arena.

Acceptance of cards is usually via a combined credit/debit/pre-paid card acceptance product. The MDR for credit cards is not regulated (reigns as high at 2% to 4%) and thus is an expensive proposition for merchants. Merchants may choose to enable themselves for card acceptance, however, it may not be advisable for all small and medium merchants to go for the relatively expensive card-based acceptance when, as an alternative to cash, there exists BHIM-UPI as a payment mode. BHIM-UPI does not cost the merchants anything under extant laws. Moving the country away from cash would hinge on having an equivalent, simple, convenient, and secure digital alternative, like the BHIM-UPI (in this era of mobile phones). In July 2022, there were 629 crore BHIM-UPI transactions amounting to a total of Rs. 10.63 lakh crore.

RBI has provided the daily data from payment networks for BHIM-UPI and debit cards. Comparing the trends since November 2020, we see that BHIM-UPI volumes have consistently increased, while the debit card transaction volumes are showing signs of decline. Currently, BHIM-UPI is hitting over 20 crore daily transactions, as against less than one crore daily off-usb debit card transactions (Figure 10).



Data Source: RBI

### Figure 10: Standing on the shoulders of a giant – The rising BHIM-UPI against debit cards

As discussed, UPI is currently cannibalising the payment arena, which can be seen in Figure 10. BHIM-UPI is having an almost constant y-o-y growth of over 100%, and thus, reaching the 50% y-o-y growth rate by the end of the last quarter requirement was an easy task to achieve. As expected, banks have been successful in meeting this requirement reaching 98% y-o-y growth at the end of the last quarter of the scheme (Jan-Mar 2022).

#### 4.2. RuPay debit card transactions

Though the banks were able to successfully achieve the BHIM-UPI target set by the government, however, to receive the 5% remaining remuneration, they had to also achieve the target of 10% y-o-y growth in the number of RuPay transactions. On average, the banks were unsuccessful in achieving this target and closed the final quarter with the y-o-y growth of approximately 0.3% in terms of RuPay (Table 5). This was much below what was set out to be achieved and thus, the banks were unable to receive the remaining 5% remuneration.

**Table 5: y-o-y RuPay growth**

Number (Lakh)	RuPay Card usage (Total)	RuPay y-o-y growth
Jan-22	1324.31	2.29
Feb-22	1196.03	-0.09
Mar-22	1331.56	0.29

Source: RBI/NPCI and authors' computation

An estimate of the funding provided by the government towards BHIM-UPI and RuPay debit card merchant transactions for FY22 has been worked out in Das and Das (2022).

#### 5. Ending Remarks

The Indian government's intervention to provide monetary support to the banks to run the BHIM-UPI platform has led to banks recovering their cost to run the BHIM-UPI system. With BHIM-UPI showing a consistent y-o-y growth of 100%, this has its effect on other digital payment modes, including the RuPay Debit card, where we see people migrating to BHIM-UPI as a more convenient means of payment. With the increasing trend of smartphones, one can expect more and more people to be enabled on BHIM-UPI. In this scenario, as seen in the past year, it is unlikely to see in the future a 10% y-o-y growth for RuPay debit card transactions. It is thus recommended that the Indian government revisits the incentive reimbursement clause of a 10% y-o-y growth for RuPay Debit card transactions.

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