



India Digital Payments Report

H1 2023

Pioneering PayTech for a
Buland Bharat

CEO's note

Every month serves as a testament to the rapid adoption of digital payments. Looking back at the first half of 2023, I find myself even more optimistic about the payment trends unfolding in India; the impressive performance of UPI, the surge in credit card usage, the jump in mobile payments volume, and the uptick in small ticket size P2M transactions. All this indicates that broad swathes of the country, rural and urban, are embracing digital payments.

The allure of digital payments beckons both consumers and merchants alike. Slowly and steadily, digital payments have permeated our lives, evolving into an indispensable facet. As the payments landscape of India continues to grow, we at Worldline are enabling secure, hassle-free, and timely payments to grow your world. Through an amalgamation of cutting-edge technology and customer-centric innovation, the vision of a cashless society is crystallizing into reality.

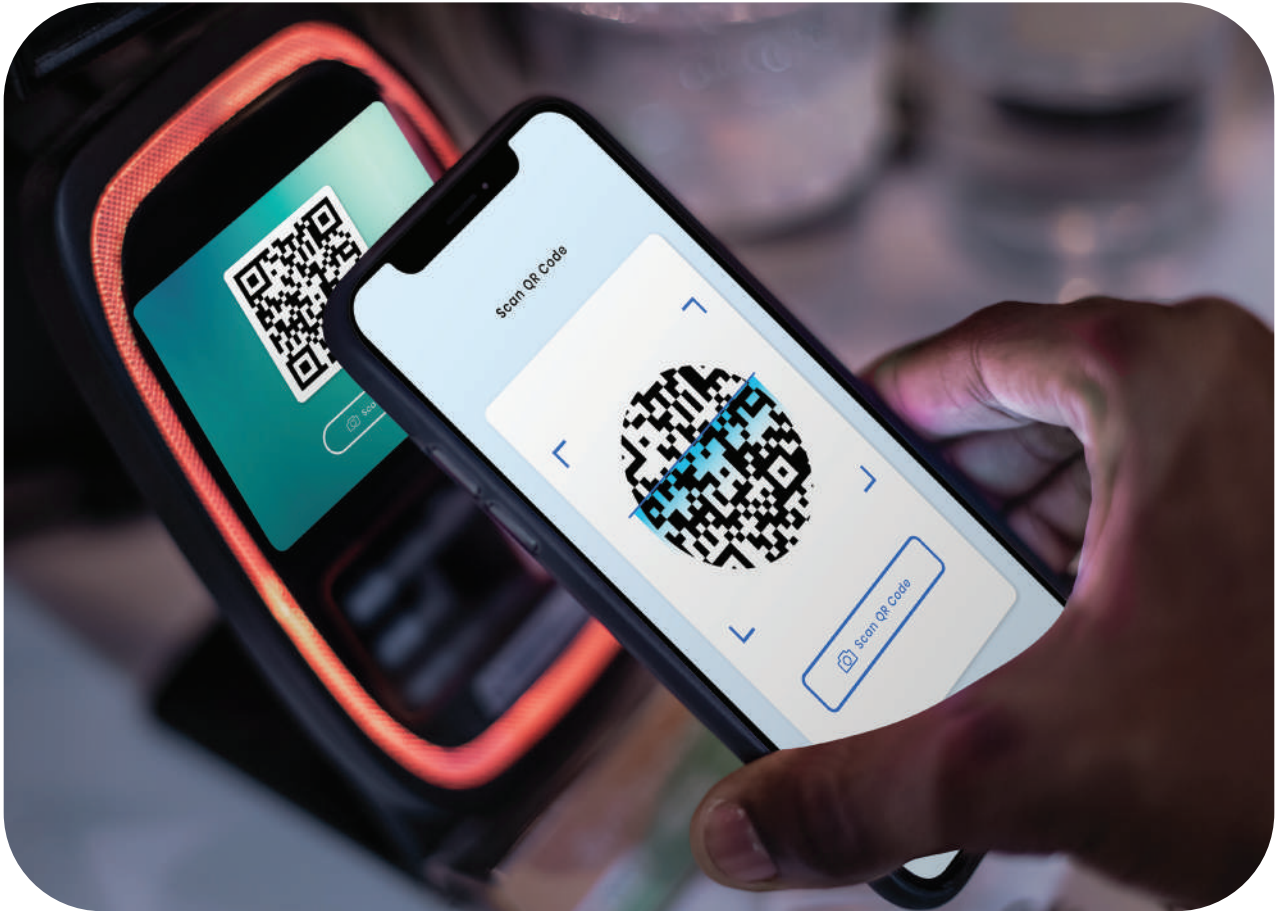
I present to you the Worldline India Digital Payments Report H1 2023 which captures a series of noteworthy trends and shifts within the digital payments landscape during this period as well as our view on why UPI will grow at an even more rapid pace.



Ramesh Narasimhan

CEO – Worldline India

Fast Forward UPI



By any measure, UPI is a huge success and will continue to be a bigger one. The number of transactions in January 2018 was 151 million; this reached 9.3 billion in June 2023. What has made this growth sustainable and will be the driver going forward is the growth in Person-to-Merchant (P2M) transactions; UPI is made up of P2P (person-to-person) and P2M transactions. In January 2022, P2M transactions accounted for 40.3% of all UPI transactions compared to 57.5% in June 2023 and this percentage is likely to keep growing.

Digging deeper, another indicator that prognosticates the future of UPI growth and particularly UPI P2M transactions is the average ticket size (ATS). While it is an average and it comes with all the cons of using an average as opposed to using a median, it is interesting here because it roughly indicates the uptake of a particular payment mechanism or channel. In this case, the ATS for UPI P2M transactions was INR 885 in January 2022; which reduced to INR 653 in June 2023 indicating that UPI is now being increasingly used for micro transactions indicating a further entrenchment of UPI.

That said, beyond the uptick of P2M transactions, these new features are going to further turbo-charge UPI transactions. They are:

- **Credit card on UPI** – While the number of credit card transactions pales in comparison to UPI (the number of credit card transactions in FY23 was 2.91 billion), the ATS of credit card transactions was INR 5220 in June 2023. Since all credit card transactions, by definition, are P2M transactions, it can only lead to an uptick in P2M transactions both in terms of volume and (especially) value. While only Rupay card transactions are currently operational, if the other Schemes join, it could be a fairly large push in terms of the value of transactions.
- **Credit line through UPI** – Unlike a loan, a credit line is where the borrower can borrow money, on a flexible and revolving basis, from lenders. This credit-line is usually pre-sanctioned by lenders. On April 6, the RBI announced that UPI will feature the availability of pre-sanctioned credit lines for its users. It is very likely that the users of this feature will be merchants or businesses because it will enable them to have instant credit for their business demands. This particular feature could also enable banks to have a great action in UPI which has been dominated by 3 players.
- **UPI Lite transactions** – higher limit & NFC – Another new proposed feature is to increase the limit of offline transactions (UPI Lite) from INR 200 to INR 500 as well as enable offline transactions using NFC technology. This means that customers can not only buy items for a higher amount, but they will now be able to do transactions on millions of devices (POS and SoftPOS) that have already been deployed in the market.

The reality is that UPI is already on a secular super growth rate and the above-mentioned features are only going to provide a fillip.



Sunil Rongala

SVP – Strategy, Innovation & Analytics

Key Takeaways

- While PoS terminals and BQR saw steady growth, UPI QRs have taken off on an already large base.
- 10 banks accounted for 82% of PoS terminals deployment.
- UPI continues to dominate payments in India

Payments Channel	Transactions volume – H1'23	Transactions value – H1'23
UPI	51.91 billion	INR 83.17 trillion
UPI P2P	22.75 billion	INR 63.99 trillion
UPI P2M	29.15 billion	INR 19.18 trillion
Credit cards	1.550 billion	INR 7.94 trillion
Debit cards	1.379 billion	INR 3.17 trillion
Prepaid cards	0.711 billion	INR 325 billion
Net Banking*	2.13 billion	INR 468.8 trillion

1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

* Net Banking is high because it is used for multiple purposes including tax payments by corporates.

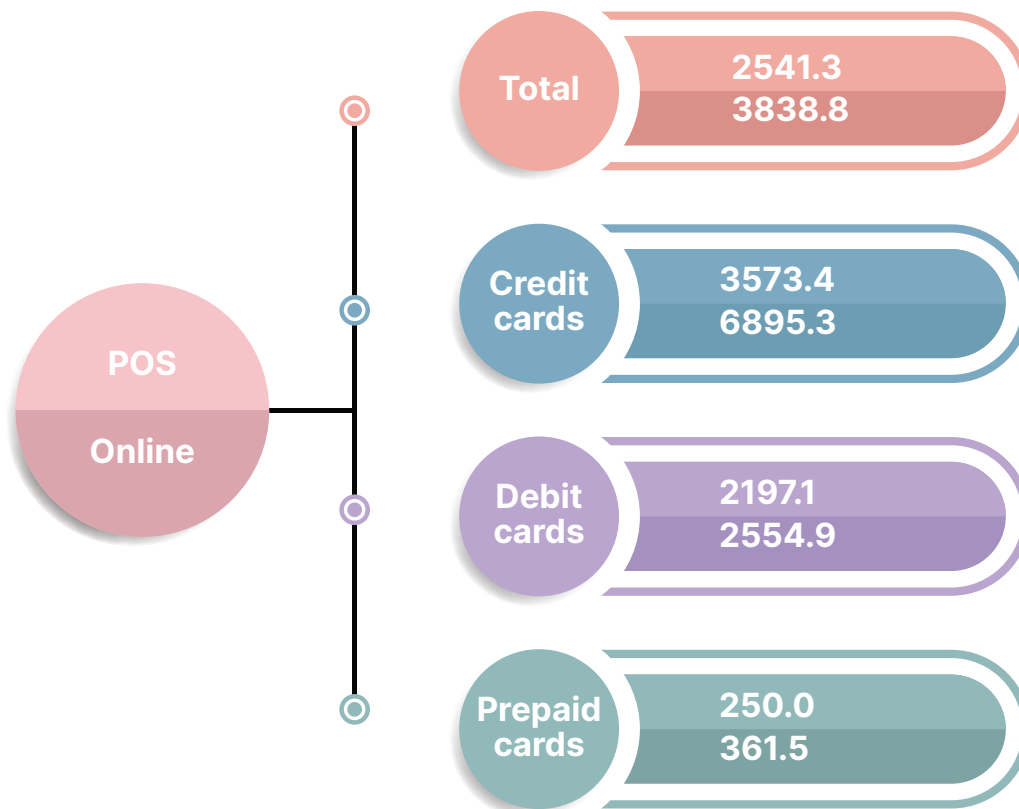
- Average ticket sizes indicate a deep penetration by UPI and being used increasingly for micro-payments.

Payments Channel	Average Ticket Size
UPI	INR 1774
UPI P2P	INR 2812
UPI P2M	INR 659
Credit cards	INR 5122
Debit cards	INR 2303
Prepaid cards	INR 325
Net Banking*	INR 219974

* Net Banking is high because it is used for multiple purposes including tax payments by corporates.

- 3 players continue to dominate UPI transactions from a user perspective.
- The merchant categories where UPI was largely used are generally those with relatively smaller ticket sizes.
- Credit cards are powering the growth in card transaction values. Online transactions have a higher ticket size when compared to PoS terminals and are driving up values.

Average Ticket Size in H1 2023



- Mobile phones continue to drive digital transactions and will continue to do so.
- Electronic toll collection will grow faster as new use cases come online.

A review of H1 2023

We have analyzed transactions available in public databases as well as the transactions processed by us in H1 2023 (January – June) and derived some unique insights.



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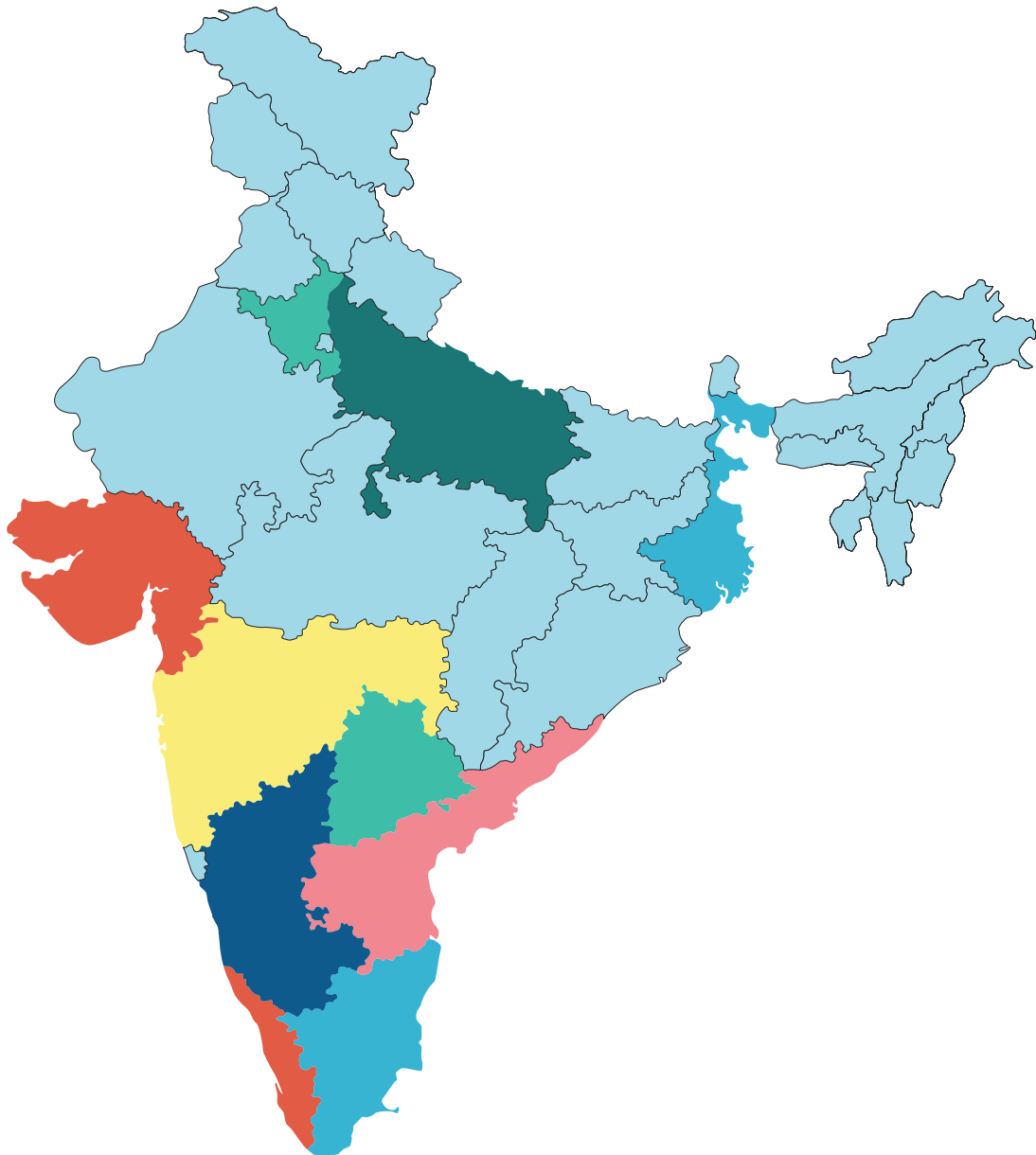
Worldline Insights

In H1 2023, frequently visited In-Store merchant categories such as grocery stores, restaurants, service stations, clothing stores, government services, pharmacies and hospitals accounted for around 65% in terms of volume and nearly 50% of the total transaction value.

In the online space, e-commerce, gaming, utilities, government and financial services amounted to more than 80% of the total transaction volume and contributed to more than 75% of the total transaction value.

Top 10 states and UT with the highest number of transactions at physical touch points in 2022 for Worldline India:

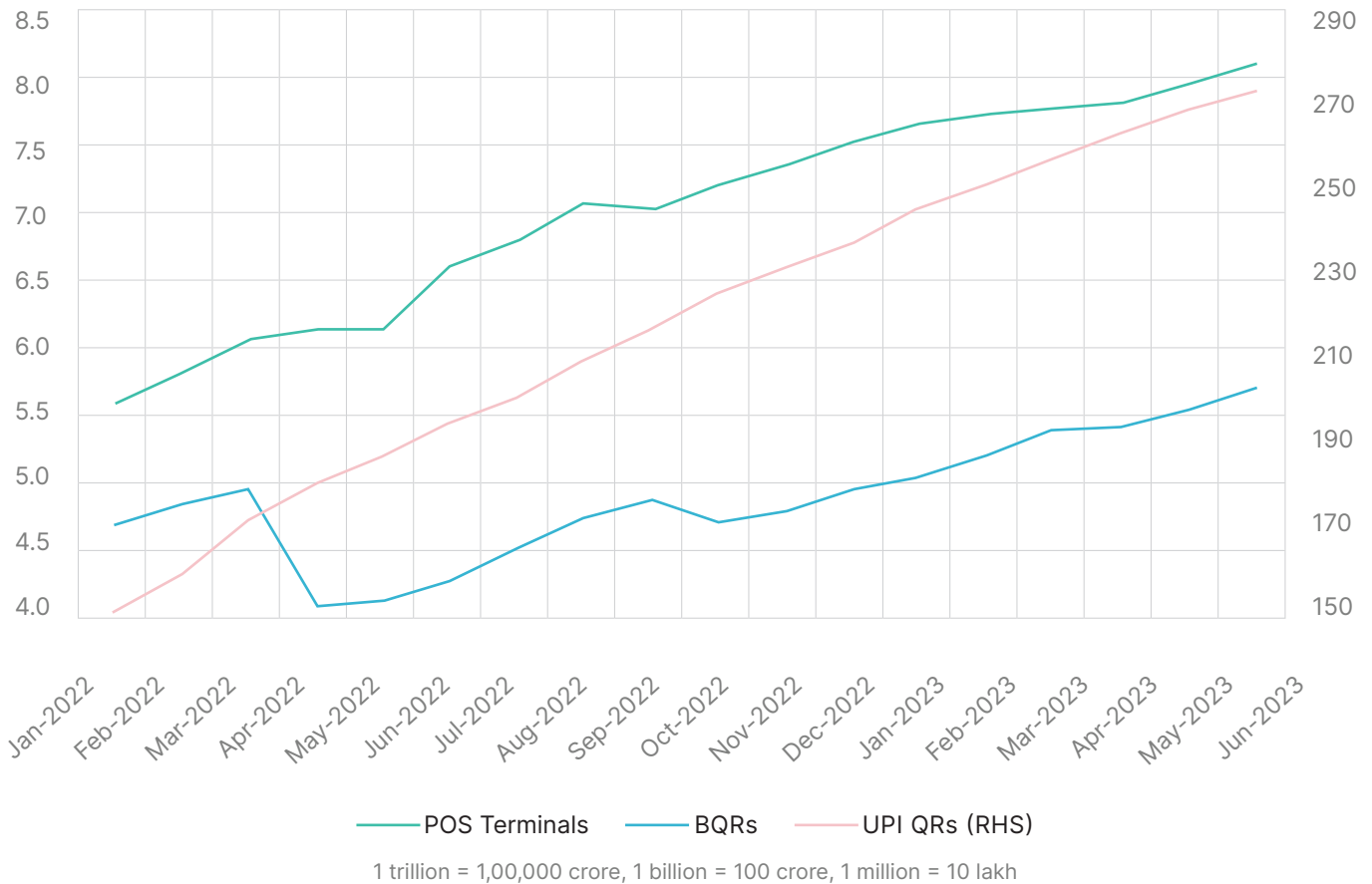
Maharashtra, Kerala, Tamil Nadu, Karnataka, Delhi, Telangana, Uttar Pradesh, Gujarat, Andhra Pradesh and West Bengal.



Payments Acceptance Infrastructure

Payments acceptance infrastructure channels saw a surge between January 2022 and June 2023. PoS terminals grew by 44% to 8.09 million while BQRs grew by 21% to 5.69. The standout is UPI QRs which grew by 79% (already on a large base) to 272 million. The growth in PoS terminals has also been helped by the RBI's PIDF scheme while UPI QR growth has been driven by the private companies dominating UPI acceptance. This growth in UPI QRs is also reflected in the growth in UPI transactions as well as how it has had an impact on other forms of payment.

PoS Terminals and QRs (millions)

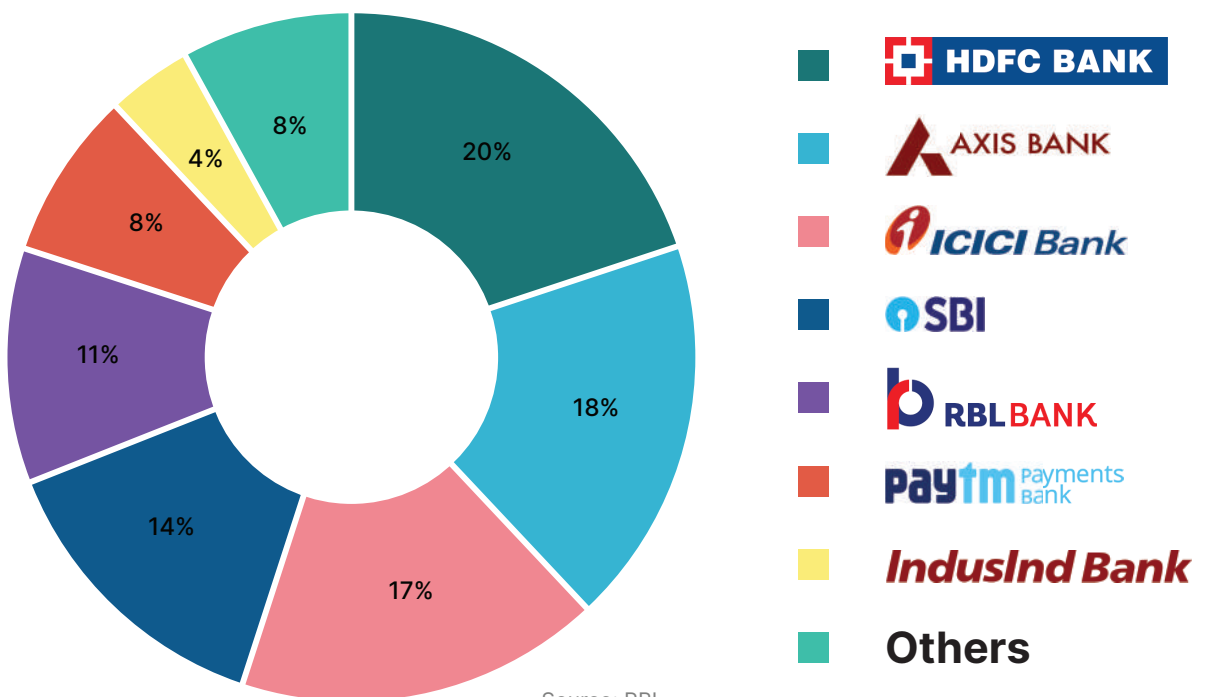


Source: RBI

PoS Market Share



HDFC Bank, Axis Bank, ICICI Bank, State Bank Of India, RBL Bank, Paytm Payments Bank, IndusInd Bank, Kotak Mahindra Bank, Yes Bank, and Canara Bank accounted for 82% of terminals deployed as of June 2023.



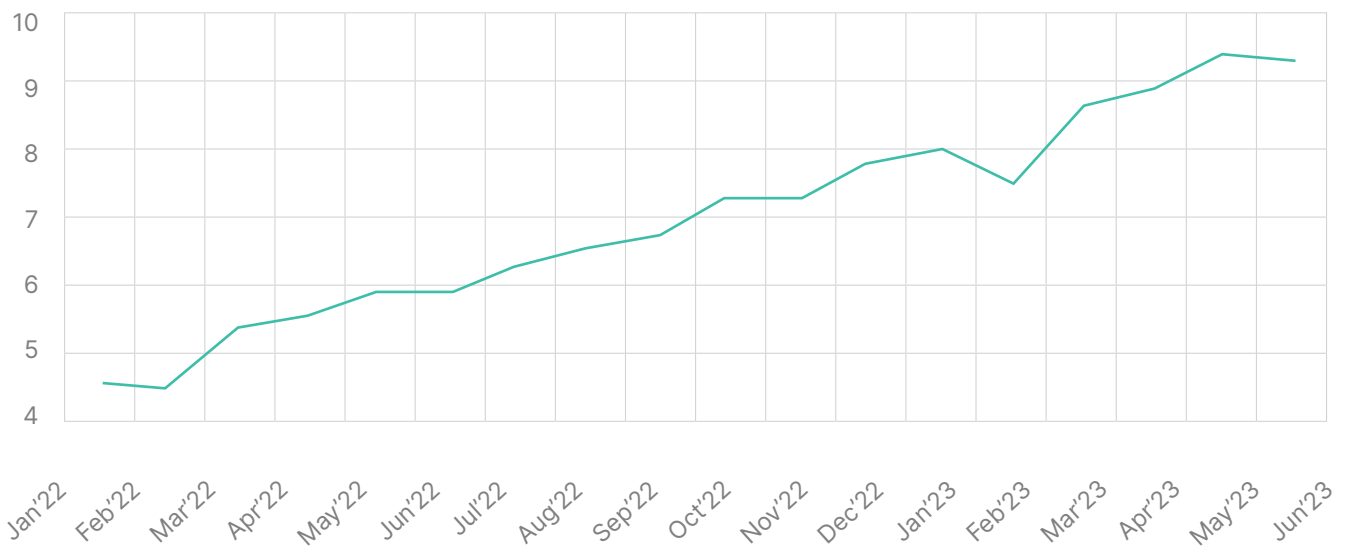
Source: RBI

UPI

UPI continues to be the dominant payment channel in India dwarfing other payment options. UPI transaction volume has experienced a major upswing increasing from 4.6 billion transactions in January 2022 to 9.3 billion in June 2023. Correspondingly, the transaction value has exhibited a parallel upward trajectory. It increased from INR 8.3 trillion in January 2022 to nearly doubling to an impressive 14.7 trillion in June 2023. A key driver for this growth has been the near-ubiquitous acceptance of UPI for both personal and payment transactions from the user/buyer standpoint as well as a high acceptance by merchants. Also, there has been greater penetration of UPI in rural India.

When comparing H1'23 to H1'22, the volume of UPI transactions increased by 62% from 31.95 billion to 51.91 billion. When the value of transactions is compared, it increased by 47% from INR 56.59 trillion to INR 83.17 trillion. However, the most interesting number is the average ticket size which reduced by 10% from INR 1774 to INR 1604. This is actually a good thing suggesting a deeper embedding of UPI by being used for smaller or micro transactions and this dip has been primarily driven by the growth in person-to-merchant (P2M) transactions.

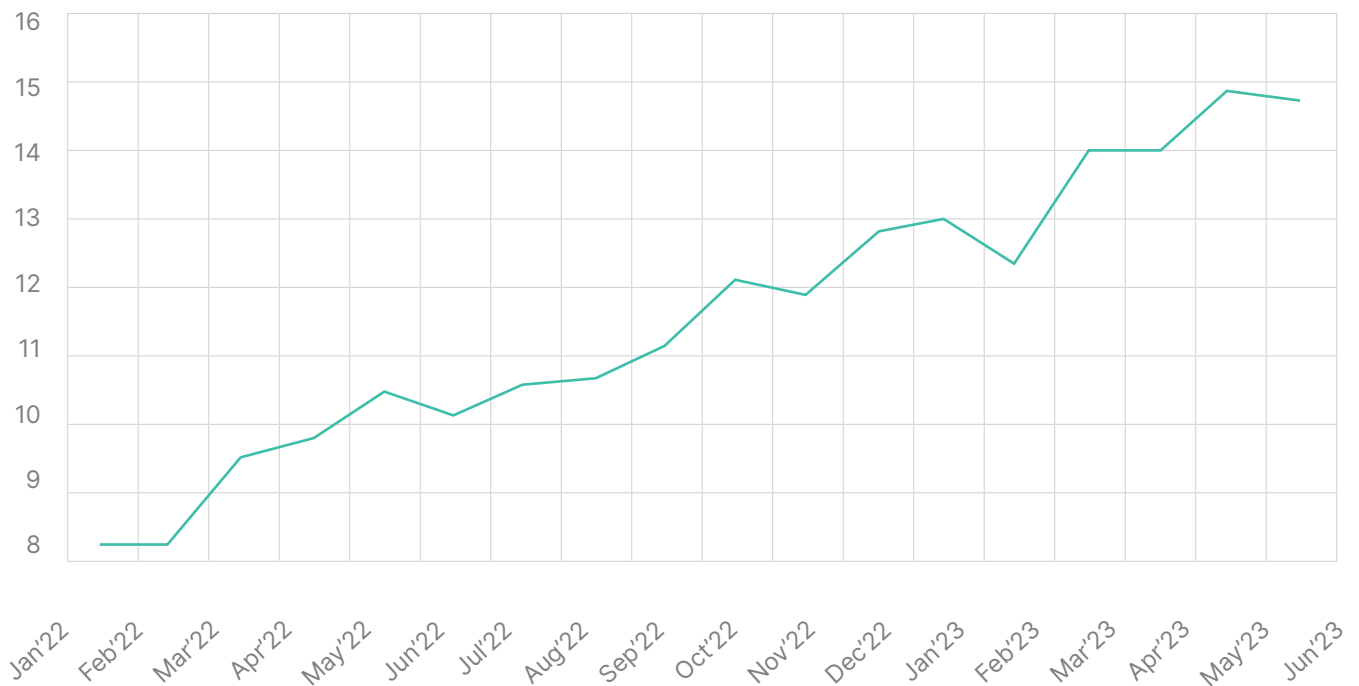
Volume (in billion)



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: NPCI

Value (in INR trillion)



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

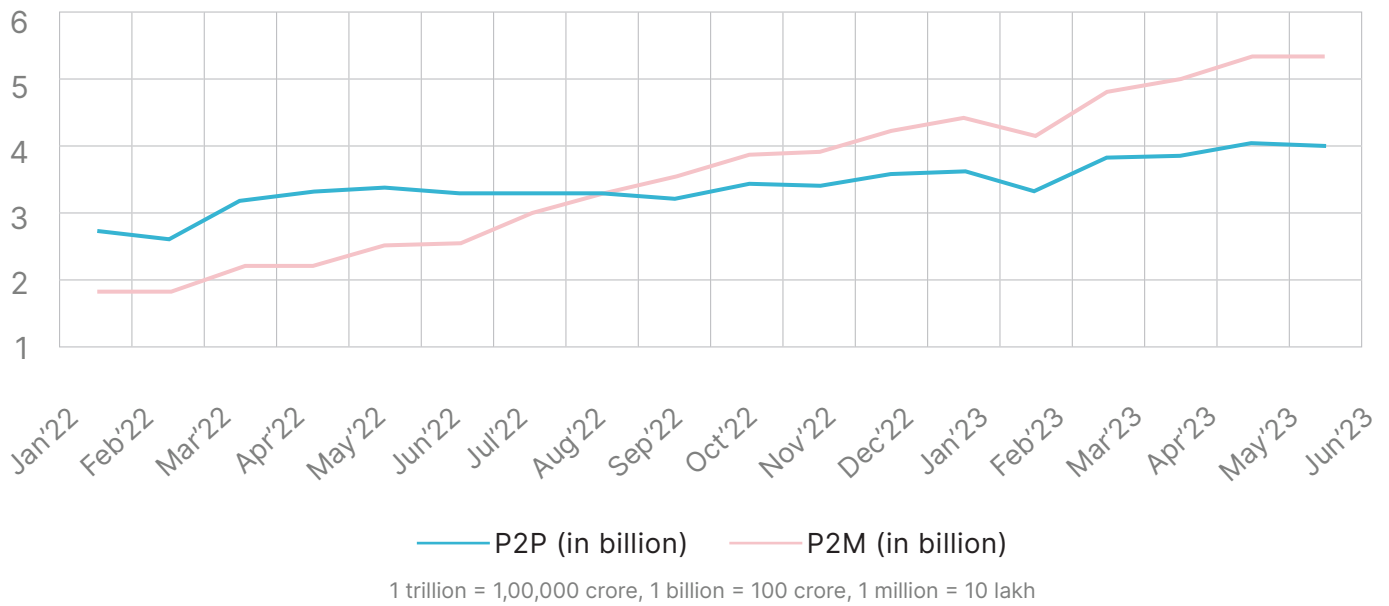
Source: NPCI

P2P and P2M Transactions

UPI transactions consist of person-to-person (P2P) and person-to-merchant (P2M) transactions. While both have clocked good growth numbers, the P2M transactions growth is truly impressive. P2P transactions grew from 18.62 billion transactions in H1'22 to 22.75 billion in H1'23; a 22% increase. During the same period, the value of P2P transactions grew from INR 45.52 trillion to INR 63.99, a 41% increase. By contrast, during the same period, P2M transactions volume grew from 13.33 billion to 29.15 billion, a 119% increase while the value grew from INR 11.6 trillion to INR 19.18 trillion, a 72% increase. During the same period, P2M transactions grew from 41% of all UPI transactions to 56%.

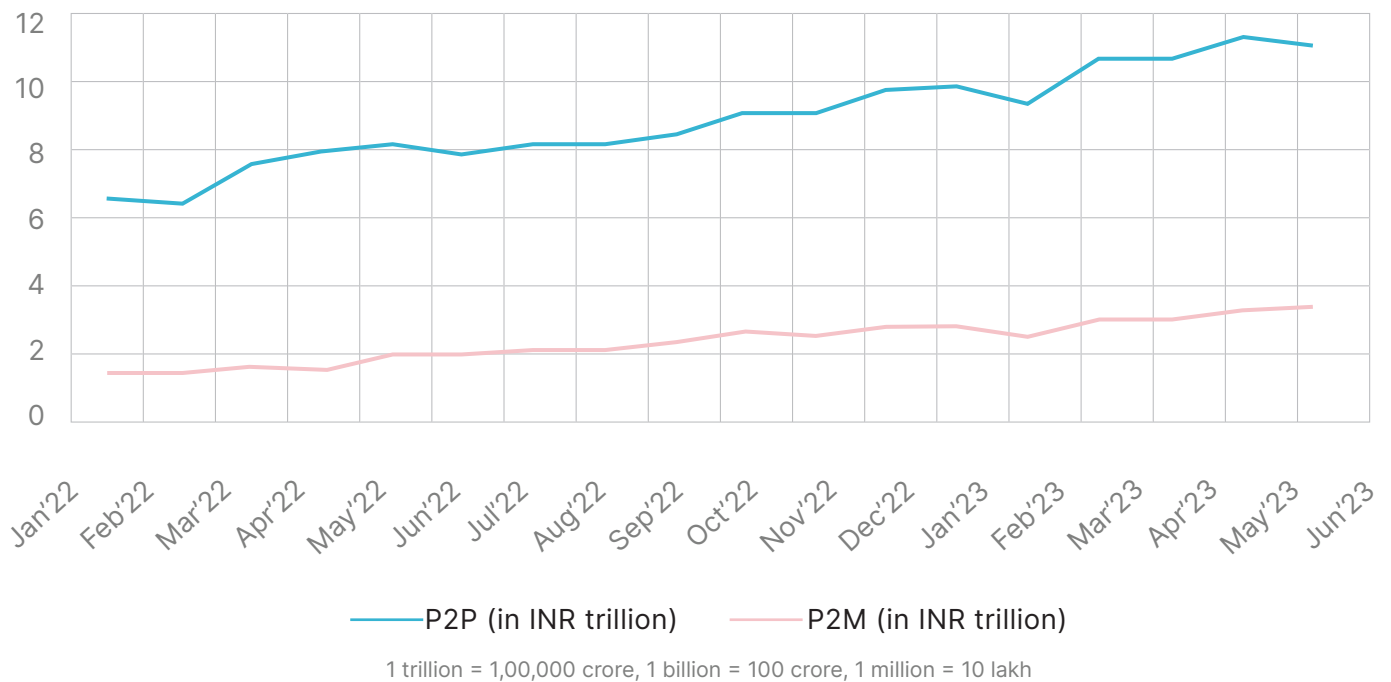
While some of this growth in P2M transactions can be attributed to zero transaction fees imposed on merchants, it indicates the depth of acceptance of this payment mechanism from both buyers and particularly the sellers; beyond low fees, merchants are also looking for security, timely payments among other things and UPI delivers here. The other fact is that with the dominance of P2M transactions, UPI is going to become even more entrenched with the population and growth will continue at this rapid pace and the P2M percentage, at current trends, will likely reach 75% of all UPI transactions by 2025.

UPI P2P and P2M Transactions (volume)



Source: NPCI data

UPI P2P and P2M Transactions (value)

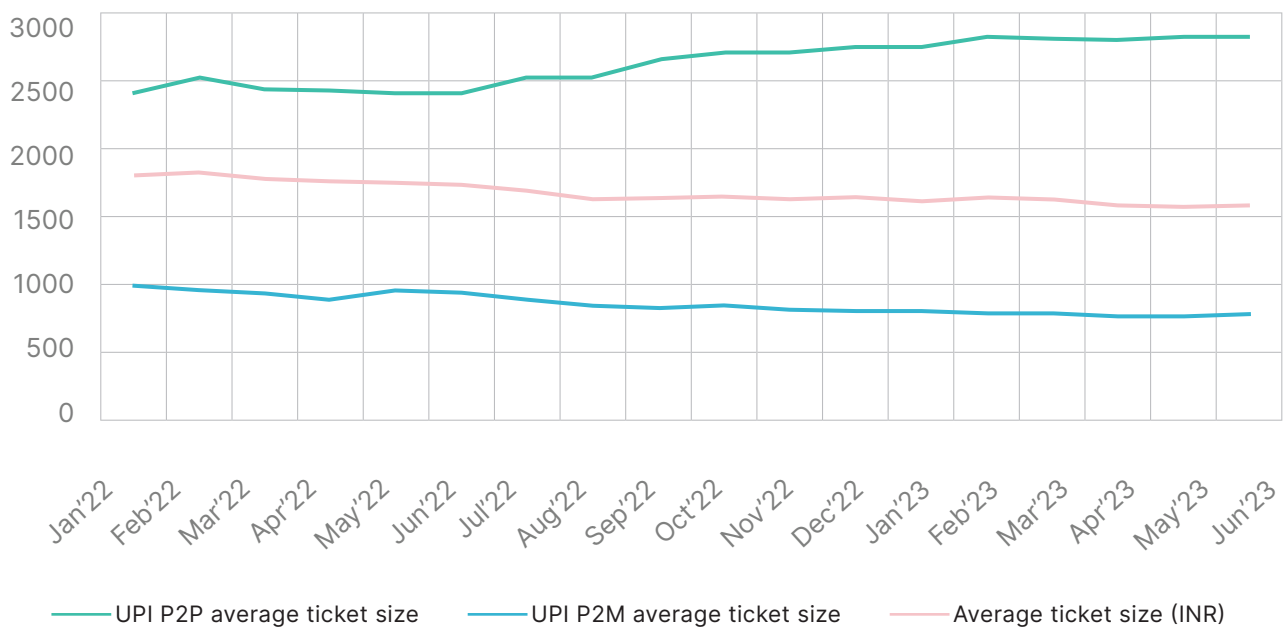


Source: NPCI

Average Ticket Size

The average ticket size (ATS) of all UPI transactions in H1'22 was INR 1774 compared to INR 1604 in H1'23, a 10% decrease. When P2P transactions are considered, during the same period, the ATS grew from INR 2442 to INR 2812, a 15% increase. That said, the reduction in overall ATS has been driven by the reduction of ATS ticket sizes of P2M transactions. During the same period, the ATS of P2M transactions fell from INR 839 to INR 659, a 21% reduction. Since the future of UPI is going to be P2M transactions, this is a good trend. It indicates that UPI is increasingly being used for micro transactions ensuring a greater stickiness for the product.

UPI transactions average ticket size



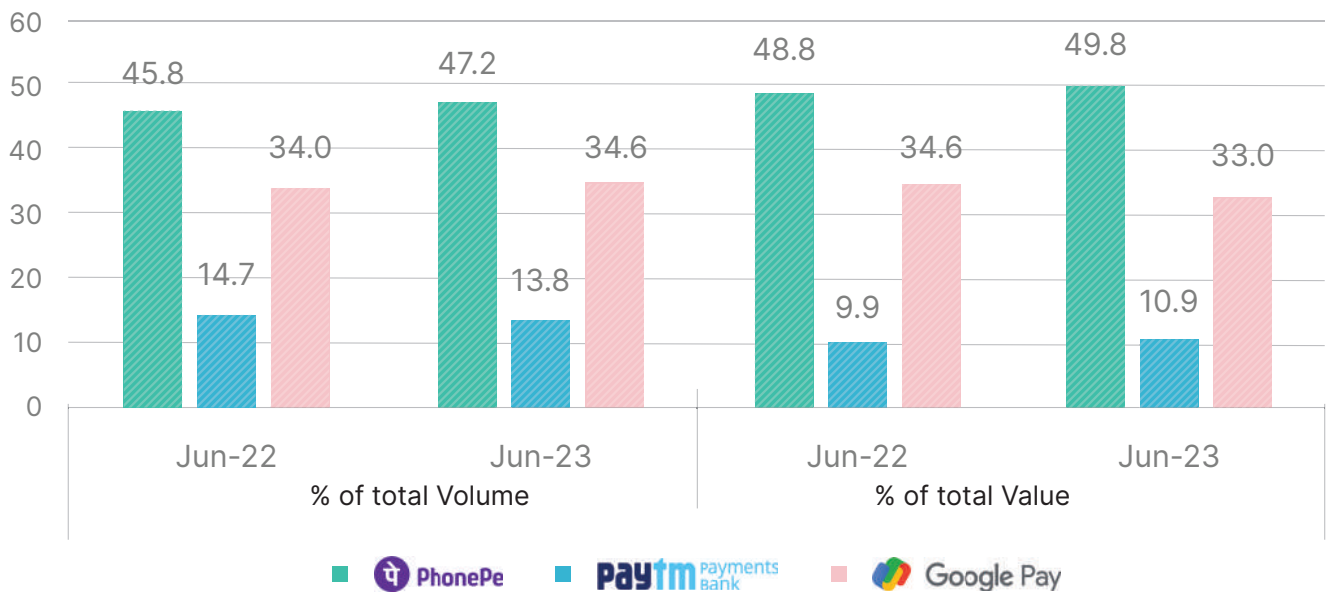
1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: NPCI

Top UPI apps, Remitter and Beneficiary banks

3 UPI apps are dominant in terms of volume and value; PhonePe, Google Pay, and Paytm. In terms of transaction volume, in June 2023, the 3 apps accounted for 95.68% of all transactions compared to 94.55% a year before. In terms of transaction value, the 3 accounted for 93.65% in June 2023 compared to 93.38% in June 2022. The dominance is likely a mixture of early mover advantage as well as features offered in the apps.

Top UPI Apps – percentage of volume and value contribution



Source: Worldline India Digital Payments Report H1 2023

The top 5 remitter and beneficiary banks are the below and are being driven by PhonePe and Google Pay; Paytm rides on its own bank rails while the other 2 use the rails of other banks.

UPI Remitter Banks	Total Volume (In billion)
HDFC Bank Ltd	46.3
Bank Of Baroda	34
Union Bank of India	32.4
ICICI Bank	26.5
State Bank of India	13.5

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UPI Beneficiary Banks	Total Volume (In billion)
Paytm Payments Bank	11.6
Yes Bank Ltd	9.6
State Bank of India	5.7
Axis Bank Ltd	3.6
ICICI Bank	3.4

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Highest transaction MCCs (January to June 2023)

The top 10 MCCs where UPI P2M transactions are done reflect why the ATS ticket sizes have been reducing while volumes have been increasing. The below MCCs are where smaller ticket sizes are usually done with a higher volume.

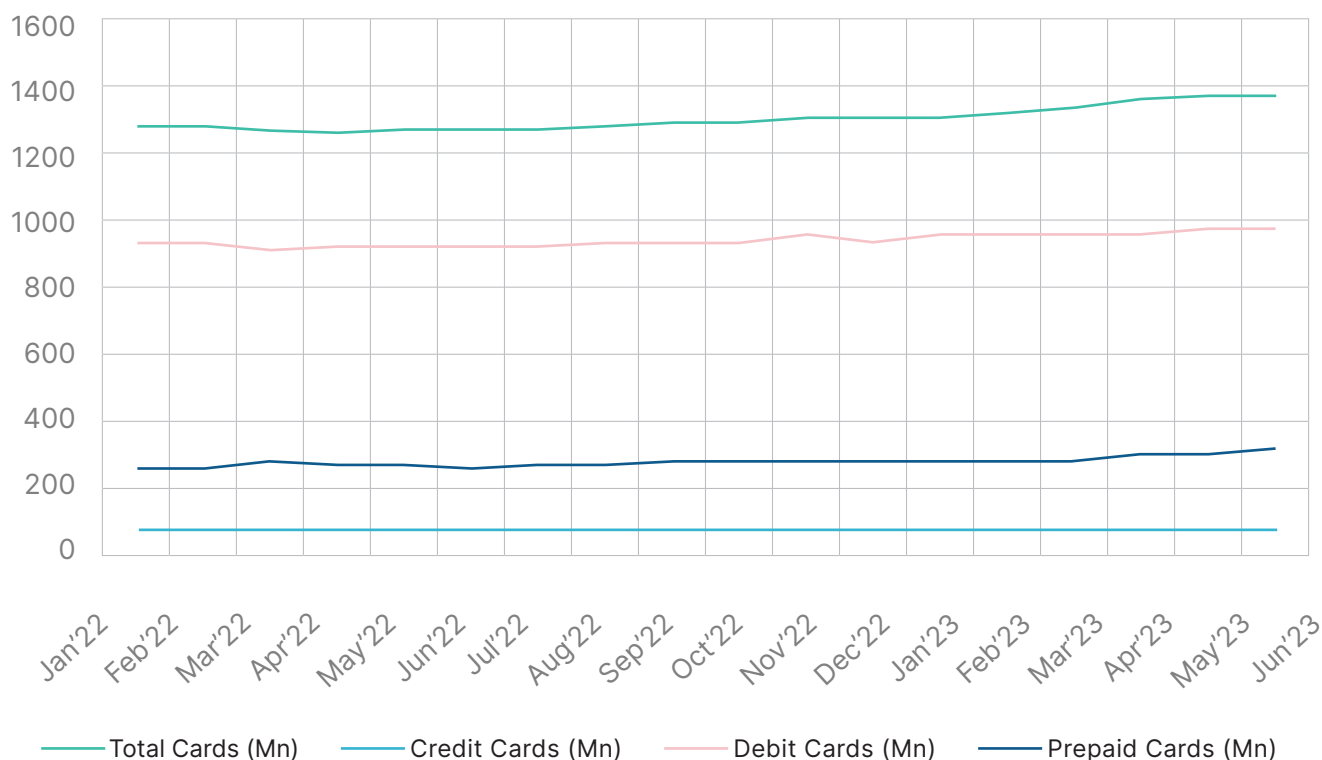
Type	Description
High Transacting Categories	Groceries and supermarkets
	Eating places and restaurants
	Telecommunication services
	Fast food restaurants
	Department stores
	Service stations
	Digital Goods: Games
	Bakeries
	Drug stores and pharmacies
	Debit card to wallet credit (Wallet top-up)

Credit, Debit and Prepaid cards



In June 2023, the total number of cards was 1376 million, a 9% YoY increase. In June 2023, the number of credit cards was 88.68 million, 975.8 million debit cards and 312.1 million prepaid cards; this corresponds to a YoY growth of 13%, 6% and 18% respectively. The top 5 issuers of credit cards are HDFC, SBI, ICICI, Axis and Kotak respectively and the top 5 issuers of debit cards are SBI, Bank of Baroda, Canara Bank, HDFC and Bank of India. The contrast between private sector banks dominating credit card issuance and public sector banks dominating debit card issuance is clear suggesting the risk appetite among the former is higher while the latter is focused on providing accounts to a larger section of the population including the unbanked. For credit cards, 70.1% were issued by private sector banks and 24.1% by public sector banks while 67.4% of debit cards were issued by public sector banks and 22.6% by private sector banks. The balance was issued by payment banks, small finance banks and foreign banks.

Credit, Debit and Prepaid Cards (Millions)



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

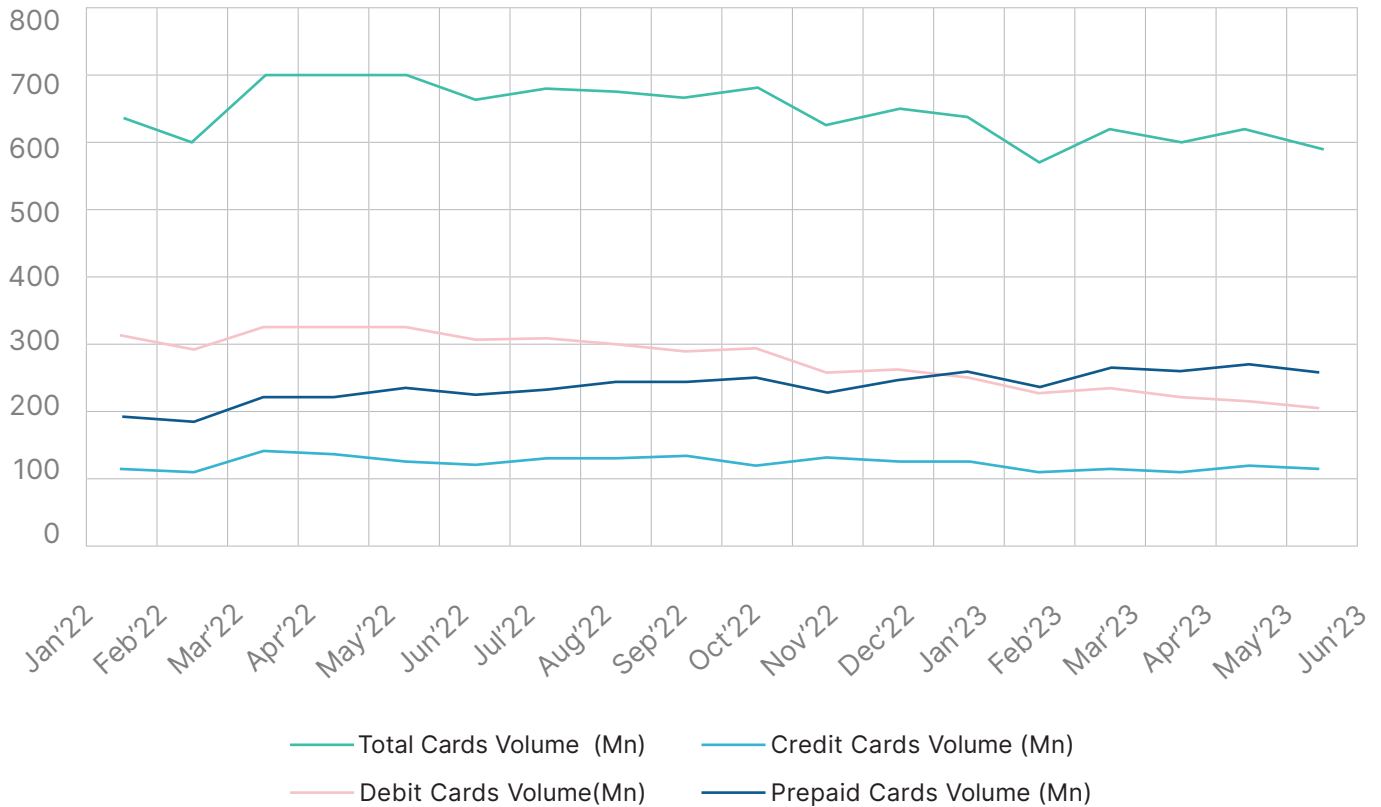
Source: RBI

In contrast to card transactions, the volume of card transactions in H1'23 was 3.64 billion, a fall of 8.9% from H1'22. The fall was driven primarily by debit cards followed by prepaid cards. In contrast, credit card transactions saw an upswing. Debit card transactions in H1'23 were 1.379 billion, a huge 28% drop off from H1'22 while prepaid card transactions in H1'23 were 0.711 billion, a drop of 9.2% from H1'22. Meanwhile, credit card transactions in H1'23 were 1.550 billion, a significant increase of 19.6% when compared to H1'22. This same pattern is repeated in the value of transactions and it appears debit card transactions are/were a casualty of the upswing in UPI transactions while prepaid could be a mixture of UPI transactions as well as the guidelines on prepaid cards issued by the RBI in June 2022; prepaid card transactions have seen a steady decline in both volume and value since then. Credit card transactions which are usually used to make payments of higher value transactions such as for white goods, travel etc have not been affected.

The value of card transactions in H1'23 was INR 11.35 trillion, an increase of 11.7% from H1'22. This growth was largely supported by credit cards. Credit card transaction value in H1'23 was INR 7.94 trillion, a strong rise of 30.5% from H1'22 while, during the same period, debit cards transaction value was INR 3.17 trillion, a fall of 14.8% while prepaid cards were INR 325 billion, a fall of 32.8%.

The average ticket size (ATS) tells an interesting story, particularly for debit cards. The average ticket size for all cards was INR 3117, a 22.6% YoY increase. This growth was primarily driven by debit card ATS growth. While credit cards ATS in H1'23 was INR 5122, a 9.1% growth and prepaid cards ATS was INR 325, a 26% decrease, debit cards ATS was INR 2303 in H1'23, a strong 18.3% growth. This growth in debit card ATS likely suggests that while debit card transactions volume fell, there was still a significant population that used debit cards for their purchases and that ensured that transactions value did not fall parallelly.

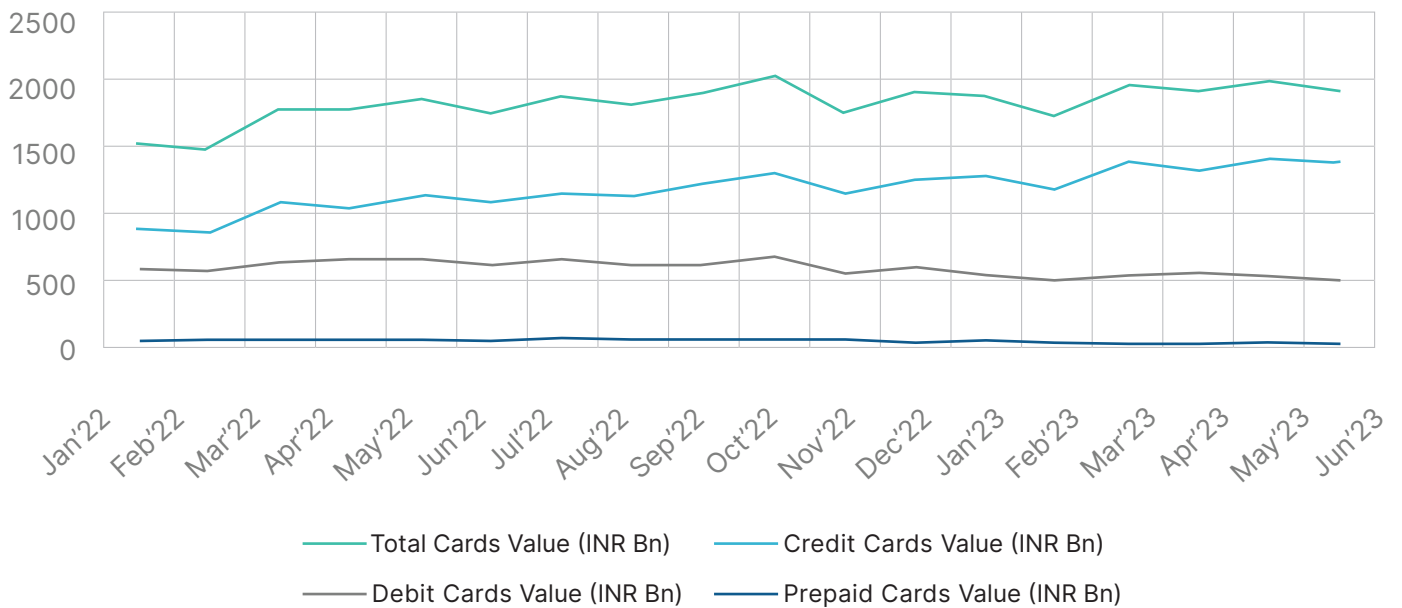
Card Transactions Volume (Millions)



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

Card Transactions Value (INR Billions)

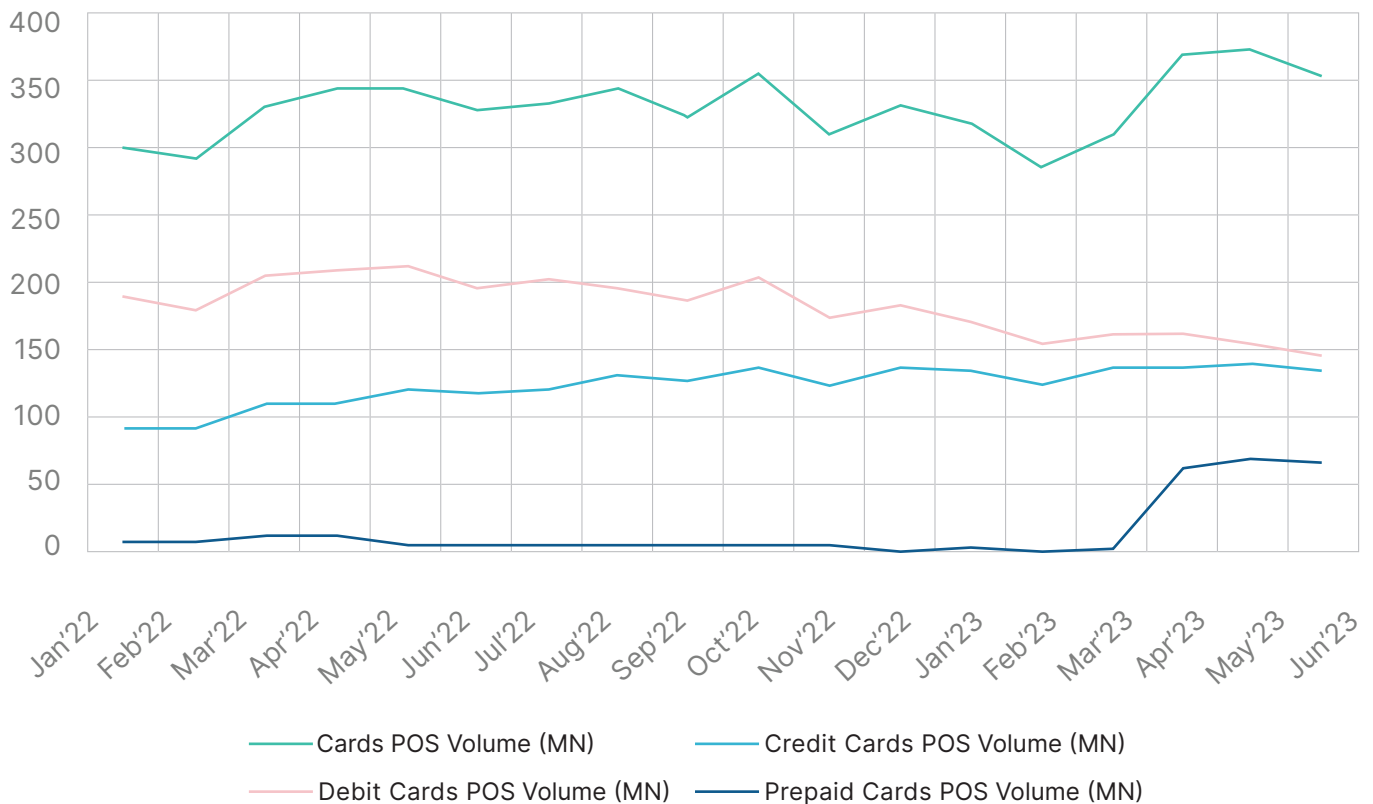


1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

Card transactions on PoS terminals held more or less steady during the considered timeframe but there was a sudden spike towards the second half of H1'23 because of prepaid cards. Total card transactions volume on PoS in H1'23 was 2.02 billion, a 3.6% increase compared to H1'22. During the same period, credit card transactions were 827 million, a 24.6% rise while debit card transactions were 970 million, a 20.1% reduction. The anomaly though was prepaid card transactions. There has been a steady fall in prepaid card transactions since April 2022 but in April 2023, the number of transactions rose to 67.6 million transactions from 6.42 million transactions in March 2023. This higher number was held in both May and June of 2023. Interestingly, there was a corresponding dip in online transactions for prepaid cards. That said, there is no clear reason for this jump and corresponding dip but could be because an issuer switched the channel usage from online to POS or the data was reported incorrectly. As a result of this increase, H1'23 transactions of prepaid card usage on PoS jumped 200% to 227.6 million.

Card Transactions Volume on PoS (millions)



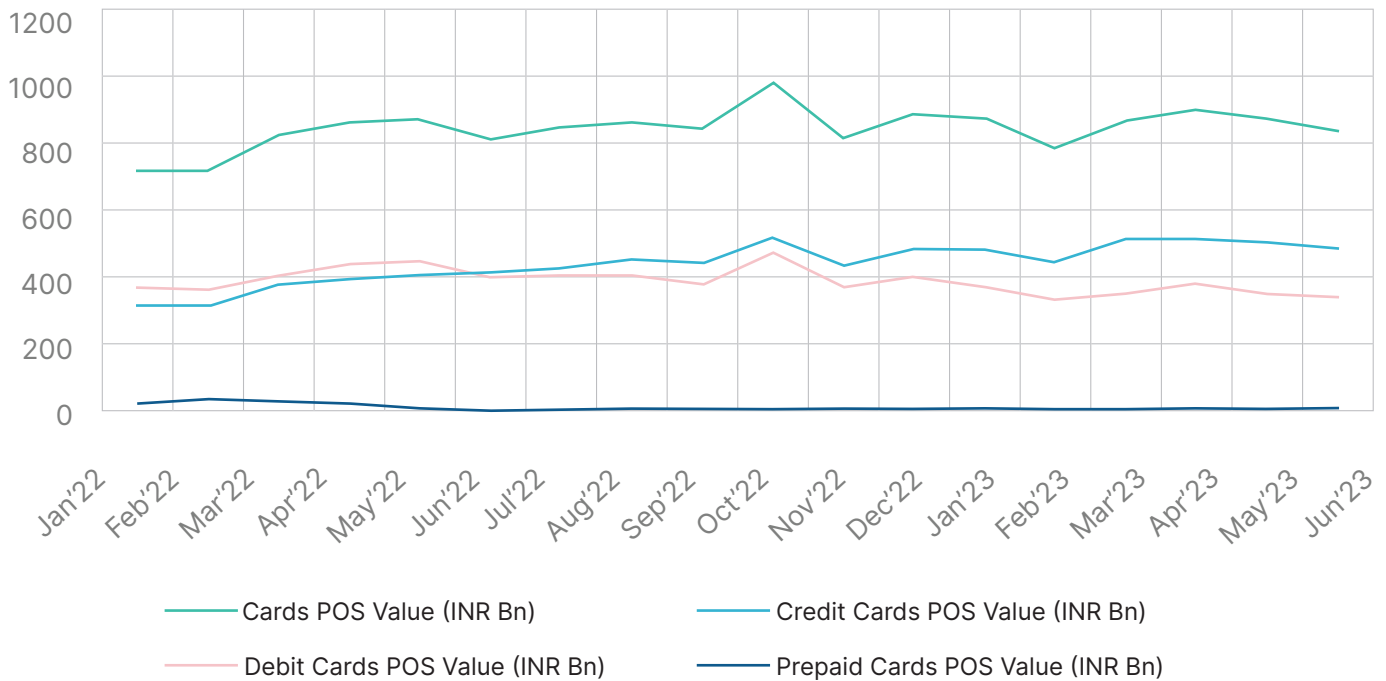
1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

The value of card transactions on PoS grew by 6.5% to INR 5.14 trillion in H1'23 when compared to H1'22. During the same time period, the value of credit card transactions was INR 2.95 trillion, a very healthy growth of 30.5% while debit card transactions value was INR 2.13 trillion, an 11.9% drop. The anomaly here again was prepaid cards; The value was INR 56.7 billion, a fall of 60.6%.

The ATS for PoS transactions was stable for credit and debit cards while prepaid cards had a precipitous fall. The ATS for credit cards was INR 3573 for H1'23 while it was INR 2197 for debit cards. The ATS of debit cards is actually positive despite a fall in transactions volume and value. Prepaid cards ATS was INR 250 in H1'23 compared to INR 1900 in H1'22.

Card Transactions Value on PoS (INR billions)



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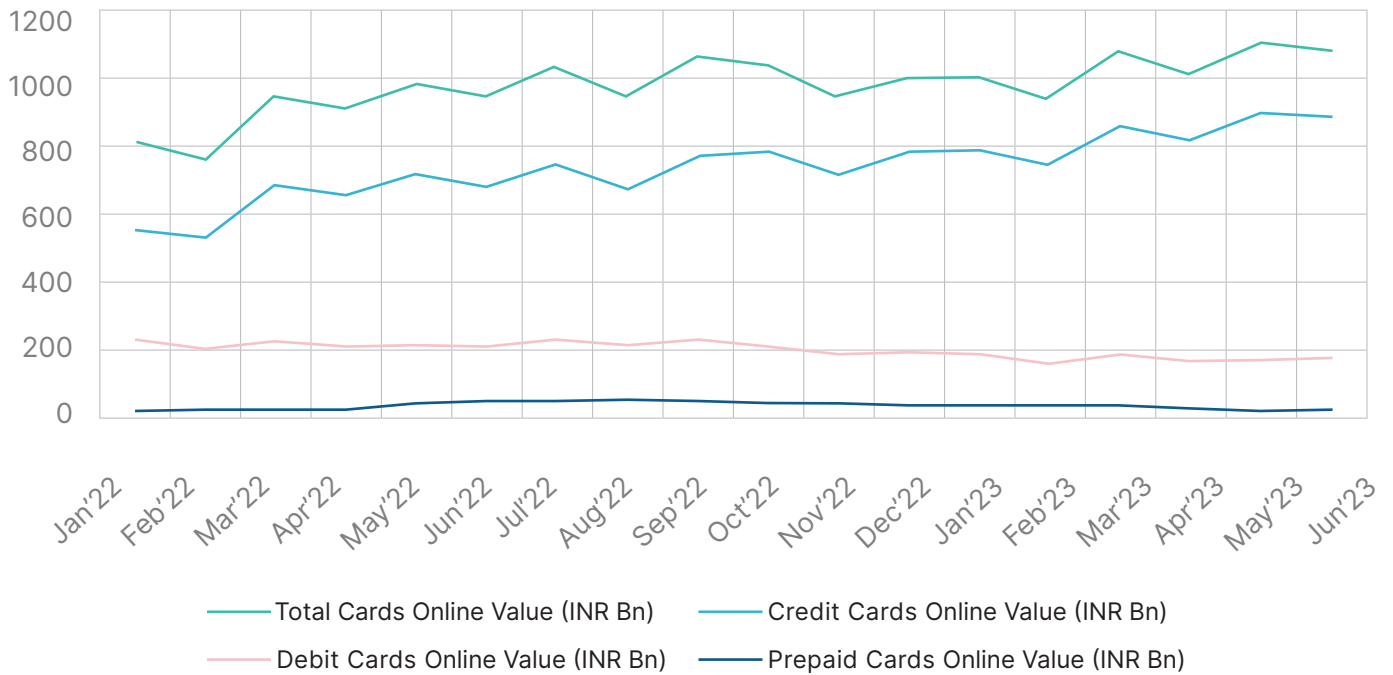
Source: RBI

Card transactions volume for online transactions in H1'23 saw a dip of 20.8% to 1.61 billion when compared to H1'22. During the same time period, credit card transactions increased by 14.3% to 723 million while debit cards fell by 41.6% to 408 million and prepaid cards fell by 31.6% to 484 million. As mentioned earlier, between April and June 2023, prepaid card transactions rose sharply for PoS transactions but fell sharply for online transactions. For example, the number was 112 million in March 2023 but fell to an average of 49 million for the next 3 months.

In contrast, the value of card transactions in H1'23 for online transactions rose by 16.4% to INR 6.2 trillion when compared to H1'22. During the same time period, credit card transactions value rose by 30.4% to INR 4.98 trillion while debit cards fell by 20.1% to INR 2.55 trillion and prepaid cards fell by 12.9% to INR 175 billion.

The ATS for online transactions saw a positive jump in H1'23 when compared to H1'22 for all categories; Total – INR 3838 (47%), credit cards – INR 6895 (30.4%), debit cards – INR 2554 (36.8%), prepaid cards – INR 361 (27.3%).

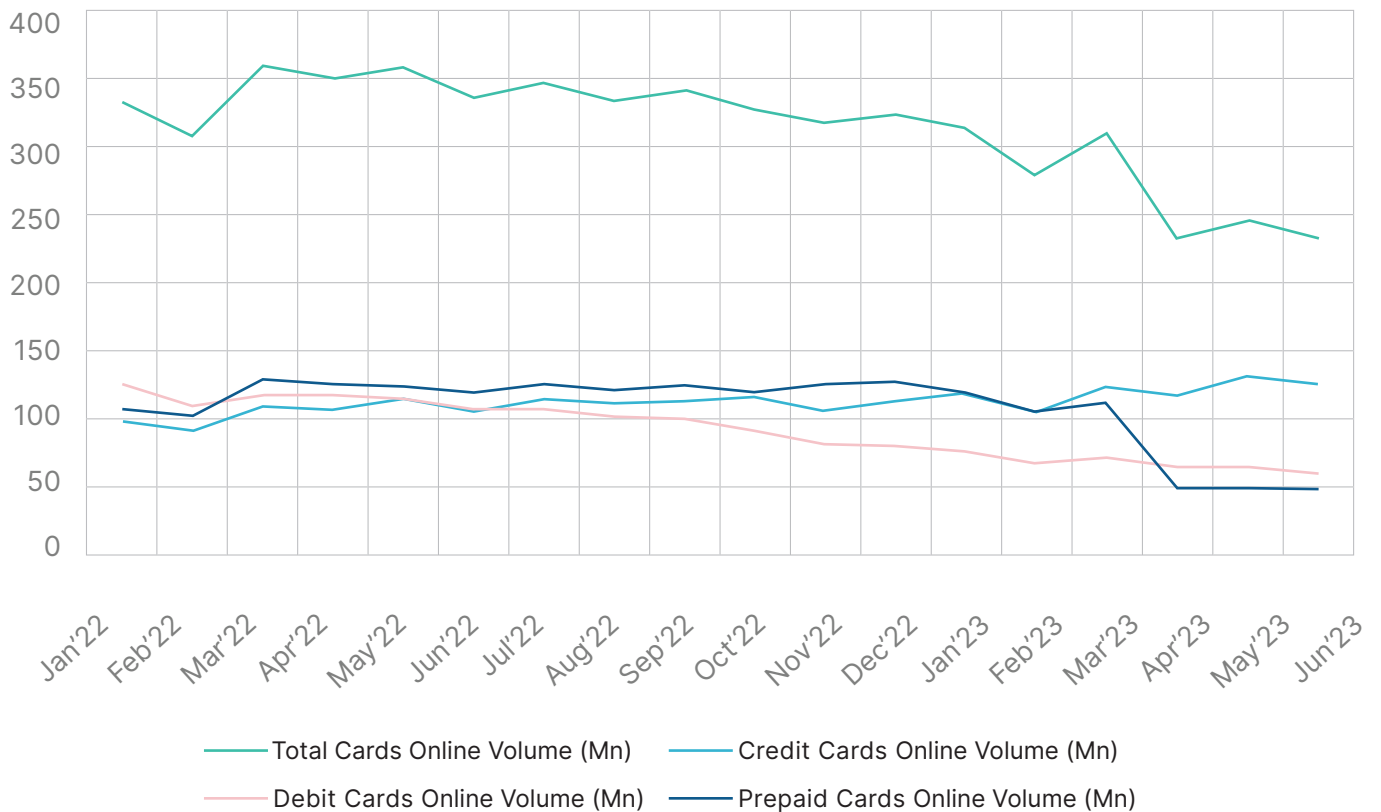
Card Transactions Value for Online (millions)



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

Card Transactions Volume for Online (millions)



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

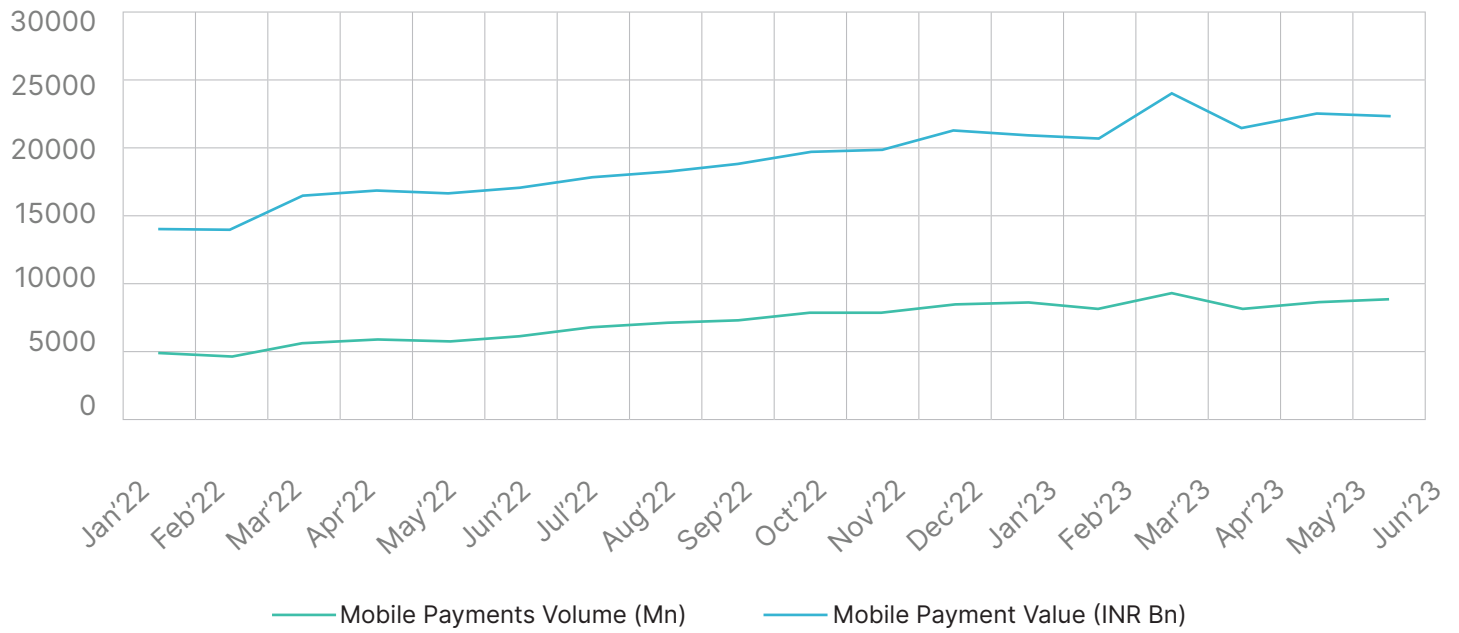
Mobile Payments



Mobile payments, which are transactions done using mobile phone apps, have seen solid growth. A significant number of these transactions are UPI-based but could be a whole host of payments using bank accounts etc. The number of mobile transactions in H1'23 was 52.15 billion compared to 33.55 billion in H1'22, a 55.4% while the value of mobile transactions in H1'23 was INR 132 trillion compared to INR 95.32 trillion in H1'22, a 38.9% increase. Another comparison shows the real growth; between January 2022 and June 2023, the volume was up 77% while the value was up 58%.

The ATS of mobile app transactions in H1'23 was INR 2538, a 10.6% reduction compared to H1'22. What this really shows is how Indians have taken to their mobile phones to make payments for multiple things using multiple channels. The growth in this also indicates how stable this method of payment will be and how it will continue to power the future of payments in India. The ATS fall, like UPI, shows this will be the basis for sustained resilience.

Mobile App Payments



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

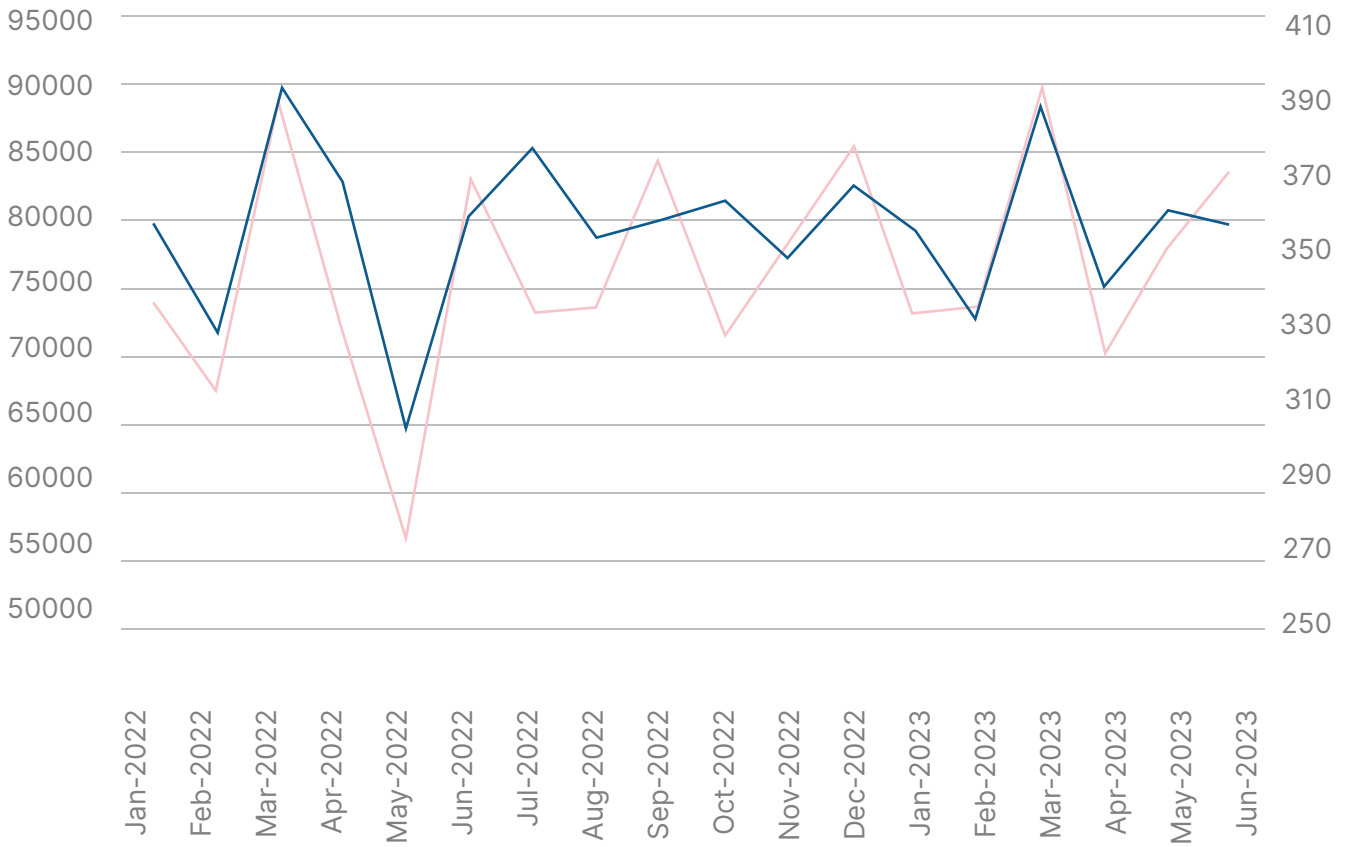
Net Banking



While Net Banking (NB) is traditionally thought of to be where one pays for their goods and services, it also includes payments made by corporates for taxes among many other things explaining the very high numbers. In H1'23, the volume of NB transactions was 2.13 billion, a 1.4% increase from H1'22 (2.10 billion). In terms of value, NB transactions in H1'23 amounted to INR 468.8 trillion compared to INR 442.4 trillion, a 5.9% increase.

In terms of ATS, it was a massive INR 219974 in H1'23 compared to INR 210495 a year before. NB, given its usage, will continue its upward trajectory but the percentage growth will be small just given the massive base.

Net Banking



— Net banking Value (INR Bn) — Net Banking Volume (Mn)-RHS

1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI

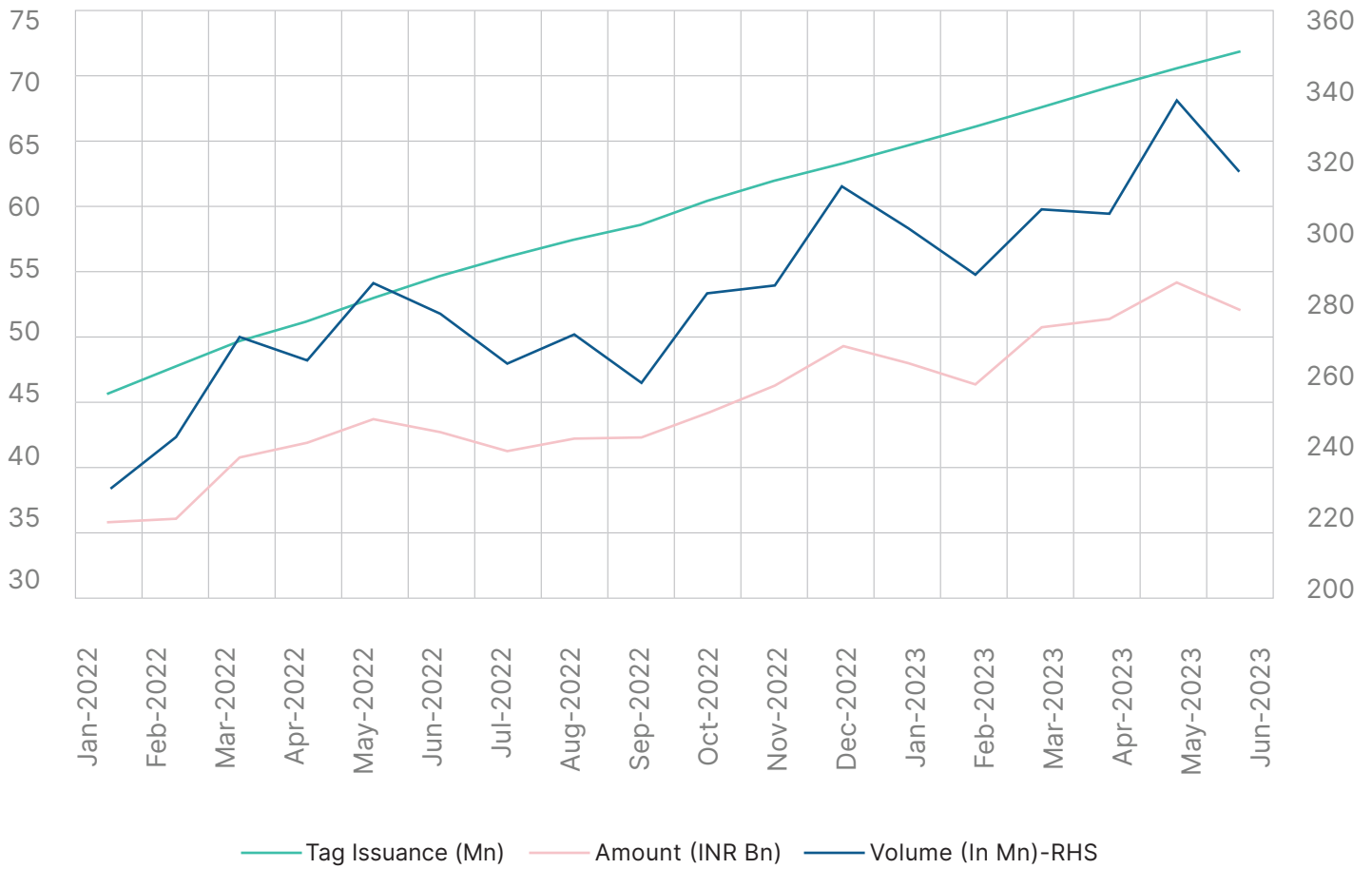
Electronic Toll Collection



Electronic Toll Collection (ETC) has really changed how we pay for tolls on the country's roads and now increasingly at parking plazas among other use cases. Drivers across the country can testify how easier it has made driving on roads and this steady adoption is reflected in the numbers. To start with, the number of tags issued has grown from 45.97 million in January 2022 to 71.92 million in June 2023, a 56.5% growth. In terms of volume, transaction in H1'23 were 1.85 billion compared to 1.57 billion in H1'22, a 17.6% growth while the value of ETC transactions in H1'23 was INR 303.4 billion, a 25.3% increase when compared to H1'22 (INR 242.2 billion).

Given that ETC tags are a mandate, this number will continue to grow steadily and as new use cases come online, that steady increase may take on a steeper incline.

Electronic Toll Collection



1 trillion = 1,00,000 crore, 1 billion = 100 crore, 1 million = 10 lakh

Source: RBI



About Worldline

Worldline is building a robust payment ecosystem and a Buland Bharat for over 26 years in India.

Our PayTech offering in India encompasses the entire payment value chain – in-store and online - and aligned with our commitment to building a less cash economy in India and boosting economic growth.

Today, Worldline is acknowledged as one of the foremost PayTech organisations in India and is a preferred partner for 30+ leading public and private sector banks along with NBFCs, Insurance Companies, E-commerce, Start-up's, Retail brands and SMBs.

15 lakh+ merchants across all segments.

5000+ towns and cities servicing capabilities.

Supported by **1500+** payment experts.



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Pioneering PayTech for a
Buland Bharat

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Payments to grow your world

