



مركز البحرين للدراسات الاستراتيجية والدولية والطاقة  
Bahrain Center for Strategic, International and Energy Studies

# The Impact of Covid-19 on Financial Transactions and Consumer Behavior in Bahrain: An Initial Analysis



Author:

Dr. Omar Al-Ubaydli, Dr. Fatima Al-Sebaie

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## Abstract

This report examines data on the number and value of financial transactions in the Kingdom of Bahrain during the period January 2019 – June 2020 to analyze the impact of the Covid-19 pandemic on various aspects of consumption behavior, including: the effect on aggregate purchases; the effect on the sectoral distribution of purchases; the effect on consumer prices; and the effect on preferences toward and usage of different payment methods.

Omar Al-Ubaydli is the director of research at the Bahrain Center for Strategic, International and Energy Studies (Derasat), and Fatima Al-Sebaie is a research fellow at Derasat. This project is funded by a generous grant from UNDP. The authors wish to express their gratitude to the Central Bank of Bahrain for providing data, and to Ghada Abdulla, Mohammed Al Sadek, Deema Almoayyed, Dr. Helmi Hamdi and Stefano Pettinato for valuable comments. Views expressed in this study are those of the authors and do not necessarily reflect Derasat's or UNDP Bahrain's point-of-view.

## Executive Summary

This report examines the impact of the Covid-19 pandemic on a collection of consumer-focused financial transactions in the Kingdom of Bahrain. The main findings are as follows.

1. Social distancing measures – both voluntary and those imposed by the government – have caused a significant decrease in retail activity, reflected in the number and value of point of sale transactions; and by June 2020, only a partial recovery had occurred.
2. Social distancing has also led to a significant restructuring of household consumption, with a renewed emphasis on consumption that can occur within homes (food, furniture, entertainment, telecommunications) at the expense of goods and services that occur outside the home (hotels, clothing, travel).
3. When leaving the home, people prefer the convenience and perceived added safety of conducting their purchases in a department store or large supermarket.
4. These changing demand patterns are reflected in price indices: prices have risen in sectors that experience increased demand, and fallen in sectors that experience reduced demand; the overall CPI has fallen due to the reduction of aggregate demand.
5. Household consumption baskets have changed considerably due to the pandemic, and so the weights used in inflation indices need to be recalculated, meaning that existing indices may be biased.
6. Residents of Bahrain have shifted away from cash toward contactless mobile payment methods, both out of necessity (stores being closed), and due to the perception that contact-based payment methods lead to an elevated risk of Covid-19 infection. Nevertheless, dependence upon debit cards and cash remains high, and the contribution of e-wallets is still small in size.
7. In the long-term, as the transition to e-wallets continues, banks and Fintech companies should consider offering flexible and easily accessible mobile financial services, and should raise awareness among consumers of mobile payment systems to further encourage their usage.

# 1. Introduction

The Kingdom of Bahrain registered its first case of Covid-19 during February 2020, after which the government rapidly imposed a series of social distancing measures in an attempt to contain the virus transmission. Like most countries in the world, the socio-economic impact of the coronavirus in Bahrain has been profound and multi-faceted.

This short report focuses on the domain of financial transactions, using data generously provided by the Central Bank of Bahrain, complemented by data provided by the Information and eGovernment Authority. It seeks to evaluate the impact of the Covid-19 pandemic on the following phenomena:

- The number of financial transactions
- The sectoral distribution of financial transactions
- The source of financial transactions
- The relationship between financial transactions and consumer price inflation
- The use of cash
- The use of credit vs. debit cards
- The use of e-wallets

Occasionally, subject to data limitations, this report will offer comparisons to trends in other countries, and will analyze the causes and consequences of the evolution of the financial transactions variables.

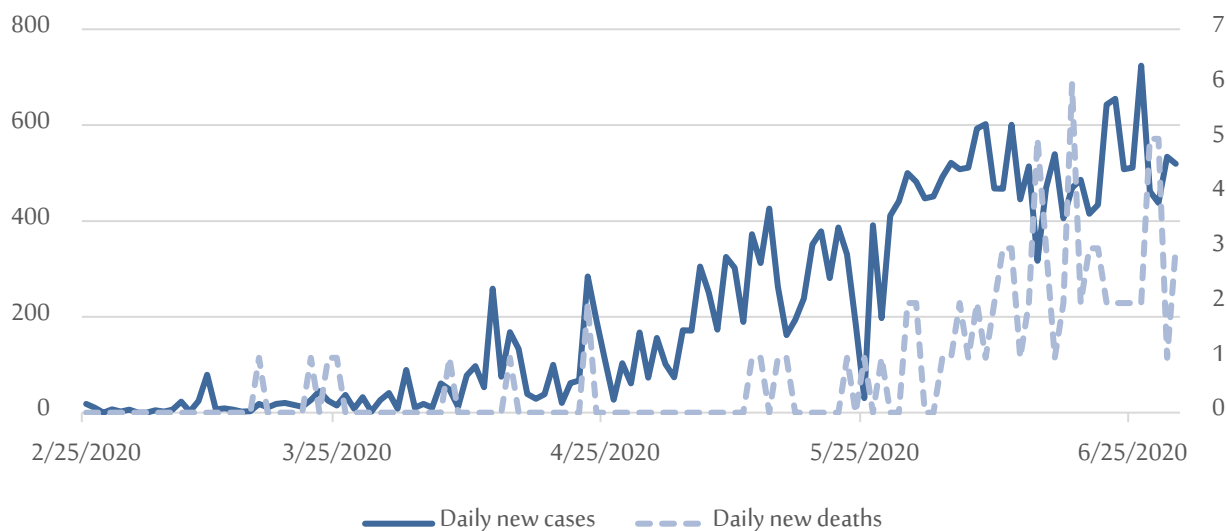
The rest of this report is organized as follows. Section 2 provides a brief overview of the spread of the coronavirus in the Kingdom of Bahrain. Section 3 explores the sectoral distribution of financial transactions. Section 4 explores the distribution of payment methods.

## 2. The Spread of the Coronavirus

Covid-19 began to spread in the Kingdom of Bahrain during February 2020. By the end of June 2020 (this report will focus on data up to June 2020 only, due to limitations on its availability), the total number of

cases reached 27,000, and the total number of deaths was 87; on a per capita basis, the deaths figure was below the world average.

**Figure 2.1: Covid-19 daily new cases (left axis) and deaths (right axis) in the Kingdom of Bahrain, February-June 2020**



*Source: Worldometer*

Figure 2.1 shows the path of daily new cases and deaths in the Kingdom of Bahrain during the first half of 2020. It indicates an acceleration in cases at the end of April 2020 (coinciding with the start of Ramadan), and again at the end of May 2020 (coinciding with 'Id al-Fitr).

In response to the pandemic, and in line with the best practices emerging elsewhere in the world, the government undertook a series of social distancing measures. Table 2.1 shows some of the most notable actions, which include familiar steps such as closing schools, closing restaurants and entertainment facilities, closing places of worship, and mandating the wearing of masks.

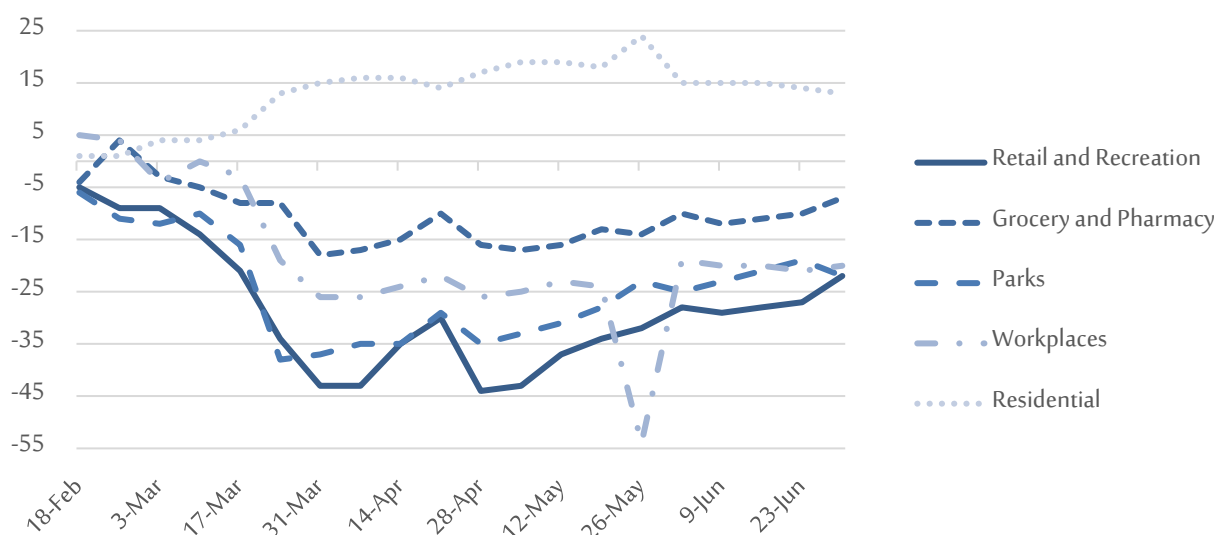
The result of these measures was a significant decrease in the mobility of people residing in the Kingdom of Bahrain. Figure 2.2 shows the percentage change in activity drawn from Google's mobility data. These data indicate large contractions (up to 45%) in retail and recreational activity, and in parks, with milder declines in groceries and pharmacies. In contrast, time spent in residential locations increased by a peak of 25% during the end of May 2020.

**Table 2.1: Selected social distancing measures adopted by the government of the Kingdom of Bahrain during the first half of 2020**

Date	Decision
2/25/2020	Universities, Schools and Kindergartens closed for two weeks (extended indefinitely on 3/5)
3/17/2020	The activities of all restaurants, tourist facilities and places of serving food and beverages are limited to external orders and delivery
3/17/2020	All commercial movie theaters, sports gyms, fitness studios, swimming pools and recreational activities closed
3/17/2020	Limiting the service offered by shisha cafes to takeout and delivery of food and beverages only
3/17/2020	Limiting public gatherings to 20 or less people and committing to stay home as much as possible and going out for necessity only
3/22/2020	Remote work policy introduced covering 50% of government employees
3/23/2020	Suspended the holding of congregational prayers across all mosques and prayer areas
3/25/2020	Entry to Bahrain became restricted
3/26/2020	Banning of gatherings of more than five people
3/26/2020	Closed non essential businesses for two weeks until April 09 .
4/3/2020	Transit through Bahrain Airport reopened for international travelers
4/9/2020	Mandated wearing masks in public and introduced a fine for violators
4/23/2020	Non essential commercial and industrial shops to close for two weeks until May 6
5/7/2020	Reopened commercial and industrial shops, with restrictions for two weeks until May 20
5/21/2020	Retail and industrial business can resume operations as usual (with certain conditions)

*Source: Government of Kingdom of Bahrain*

**Figure 2.2: Percentage change in activity using Google Mobility data for the Kingdom of Bahrain, February-June 2020**



*Source: Google*

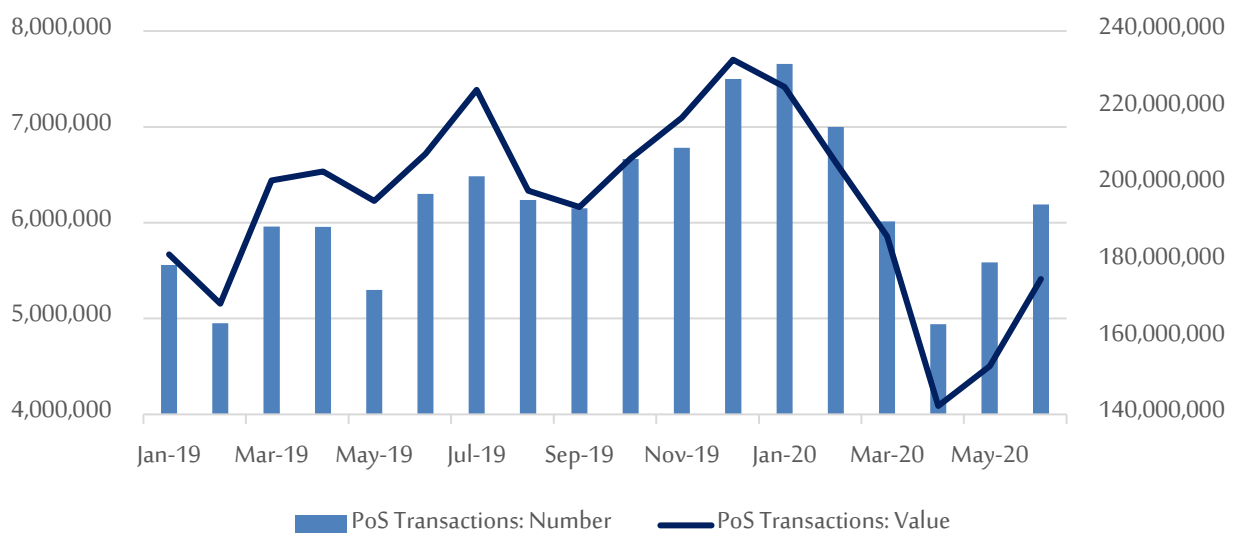
The remainder of this report examines the impact of these developments on various aspects of financial transactions, including their sectoral distribution, and the distribution of payment methods.

### 3. The Sectoral Distribution of Consumer Financial Transactions

We first examine the sectoral distribution of consumer financial transactions, i.e., how the pandemic has affected where people spend their money. Data on cash transactions are unavailable; however, data on point of sale transactions, which refer to the use of credit and debit cards in face-to-face purchases, are available, and they represent a significant percentage of total transactions. In this section, due to data limitations, we abstract from the possibility that changes in payment type vary by sector (we do not have payment type data at the sectoral level), thereby allowing us to interpret changes in the sectoral distribution of point of sale transactions as being indicative of changes in overall economic activity in those sectors.

We begin by examining the trend in aggregate point of sale transactions. Figure 3.1 shows the development of both the total number and value of point of sale transactions during the period January 2019 – June 2020.

**Figure 3.1: Point of sale (PoS) transactions number (left-axis) and value (right-axis) in BD for the Kingdom of Bahrain, January 2019 – June 2020**



*Source: Central Bank of Bahrain*

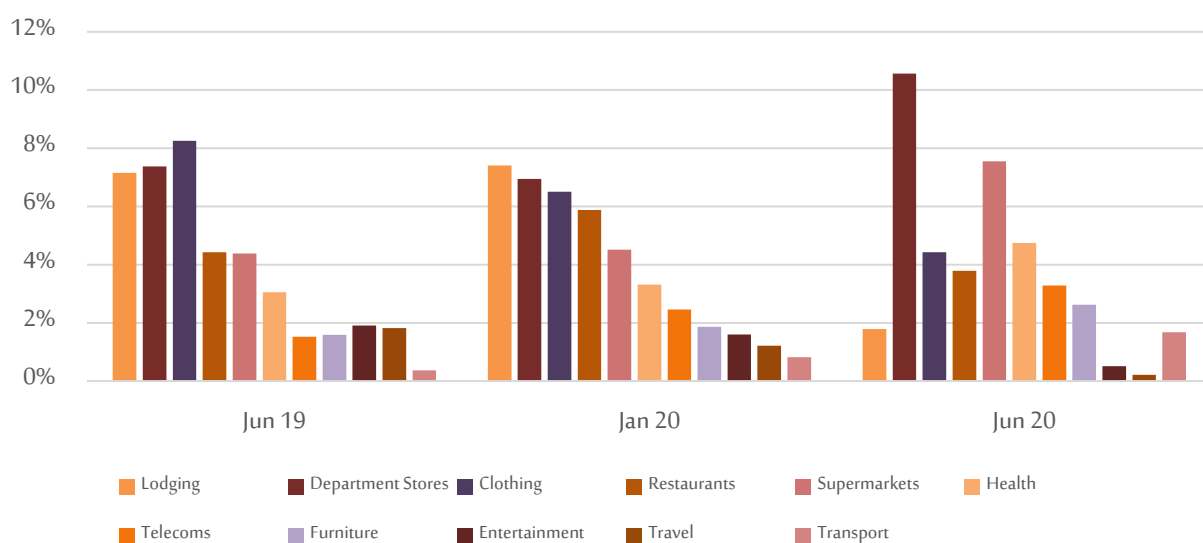
As a general remark, while the number and value of point of sale transactions are conceptually distinct, the two comove very closely. Up to and including the month of January 2020, point of sale transactions

exhibited an upward trend, albeit with some occasional monthly declines. However, there was a sharp decline during the period February – April 2020, with the number and value of transactions falling by around 35% compared to January 2020. By June 2020, they had recovered to levels comparable to September 2019.

The natural explanation for this movement is the social distancing measures undertaken voluntarily by and imposed upon the population of Bahrain, as the path of point of sale transactions closely mimics that of the retail and grocery mobility data shown in Figure 2.2. The national accounts for the second quarter of 2020 are yet to be published, preventing us from assessing the impact of these contractions on the aggregate level of economic activity. However, in light of the importance of consumption to the Bahrain economy, it is highly likely that these sharp declines in point of sale transactions will be associated with a significant contraction in total economic activity.

Next, we turn our attention to the sectoral distribution of the impact of Covid-19. Figure 3.2 shows the percentage distribution of point of sale transactions for selected sectors in the Kingdom of Bahrain during the period June 2019 – June 2020. The sectors included in the figure are the ones that experienced the most notable changes to their contribution, such as lodging, supermarkets, and travel.

**Figure 3.2: Distribution of PoS transactions for selected sectors in the Kingdom of Bahrain, June 2019 – June 2020**

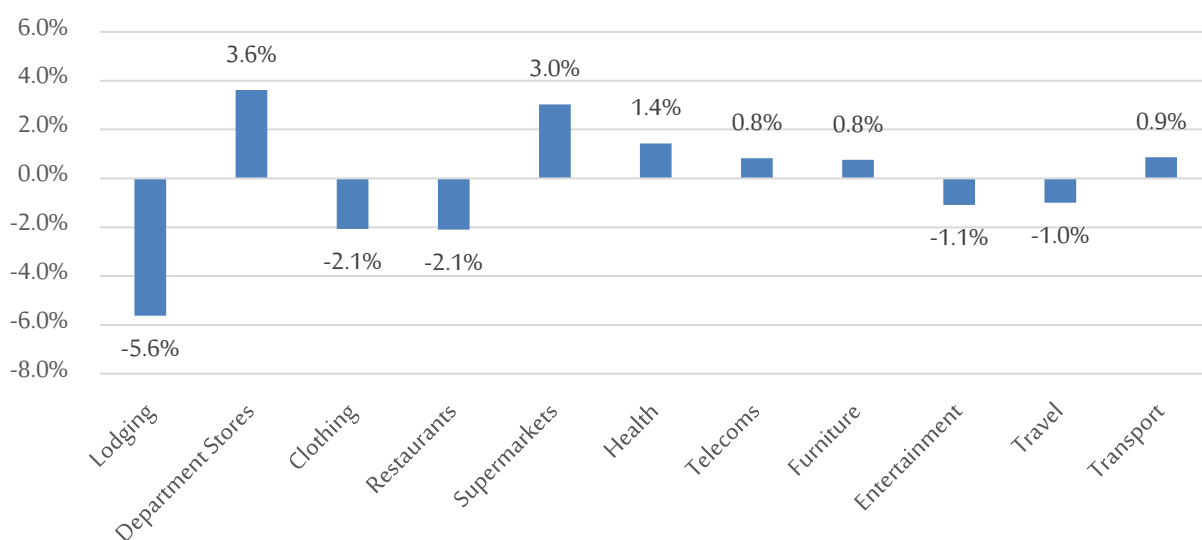


*Source: Central Bank of Bahrain*



As a general remark, Figure 3.2 conveys the existence of significant changes in the sectoral distribution of transactions. The sectors that have demonstrated a significant increase in representation among point of sale transactions are department stores, supermarkets, health, telecommunication, furniture, and transport. In contrast, the sectors that have demonstrated a significant decrease in representation among point of sale transactions are lodging, clothing, entertainment, and travel. Somewhat counterintuitively, restaurants exhibit only a mild decrease in contribution. Figure 3.3 summarizes the percentage point changes from January – June 2020.

**Figure 3.3: Change in distribution of PoS transactions for selected sectors in the Kingdom of Bahrain, January - June 2020**

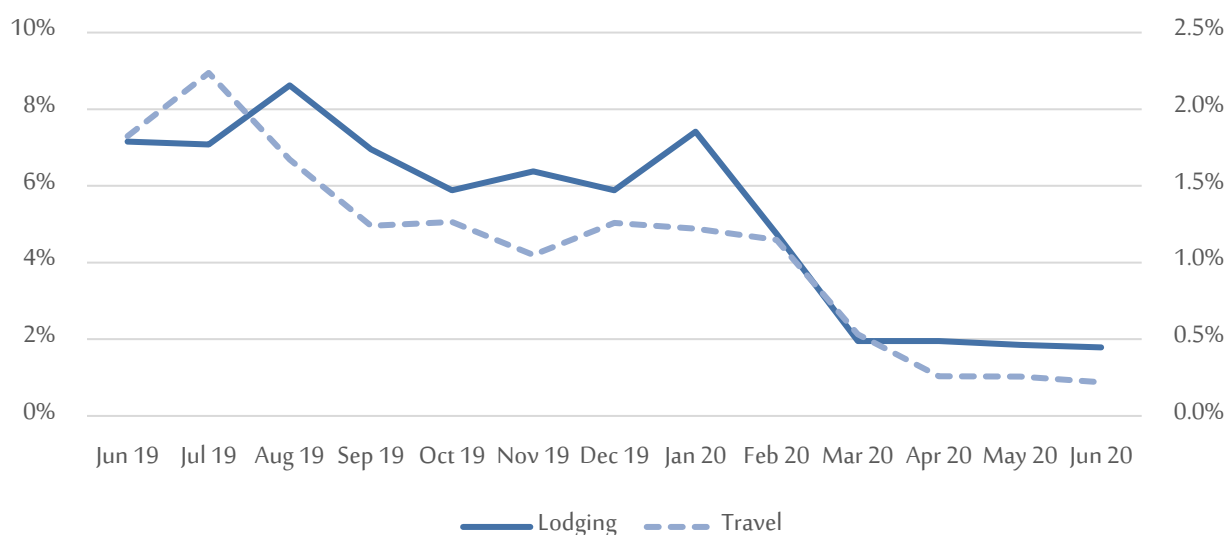


*Source: Central Bank of Bahrain*

These changes in consumption patterns are partially a response to physical and legal constraints on activity, as in the case of movie theaters being closed (entertainment), dining in restaurants being banned (restaurants), and touristic travel being banned for a considerable amount of time (travel), thereby eliminating the demand for hotels associated with incoming tourists (lodging). The larger transport demand is potentially a consequence of increased remote purchases of food and consumer goods, as many SMEs start selling online during COVID-19 lockdown, generating an increased demand for the services of delivery fleets.

These changes also reflect an organic reallocation of disposable income, due to changes in underlying consumer preferences. The increasing spending on department stores and supermarkets likely reflects a desire to limit the number of times people leave the house, as they seek to agglomerate their purchases in one store. It also likely reflects a larger need to prepare food at home, as the opportunities to procure meals prepared outside the home have contracted. Spending more time at home also means greater sensitivity to the quality and condition of furniture and need for equipment at home, and likely accounts for the substantial increase in demand for furniture and equipment. The increasing demand for telecommunications is a corollary of shifting toward home-based entertainment, tele-socializing, and remote work and education, all of which require higher levels of data consumption.

**Figure 3.4: Percentage of PoS transactions accounted for by lodging (left-axis) and travel (right-axis) in the Kingdom of Bahrain, June 2019 – June 2020**



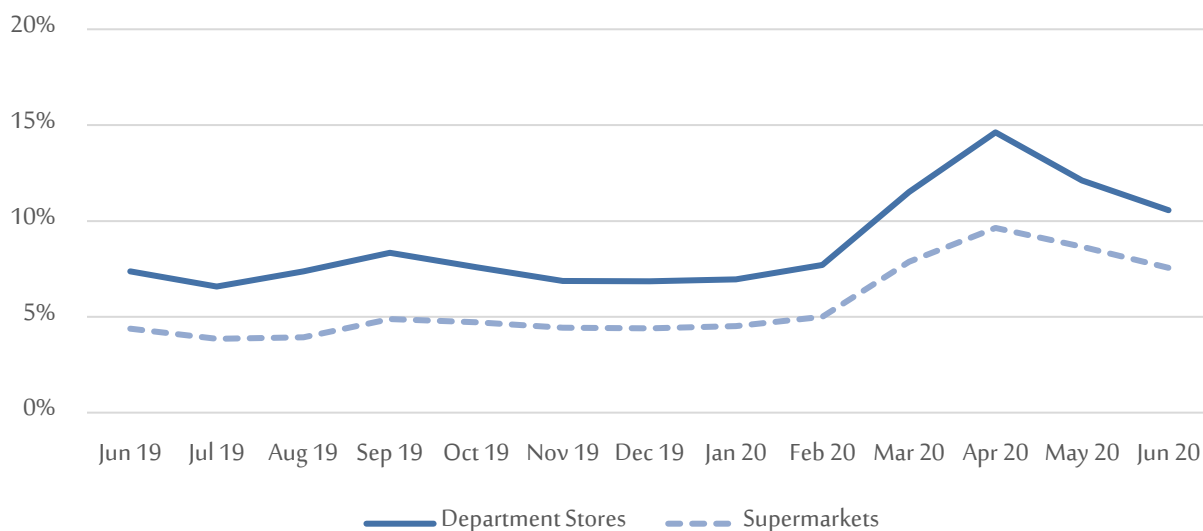
*Source: Central Bank of Bahrain*

Figure 3.4 depicts the downward path of lodging (primarily hotels) and travel expenditure in greater detail. In June 2019, they together accounted for almost 15% of the value of point of sale transactions. By June 2020, this figure had shrunk to less than 1%.

Figure 3.5 shows the corresponding data for department stores and supermarkets. In June 2019, their collective share was 11%, and by April 2020, during the strictest period of enforced social distancing, this figure more than doubled, reaching 25%. With the subsequent easing of restrictions, by June 2020, the

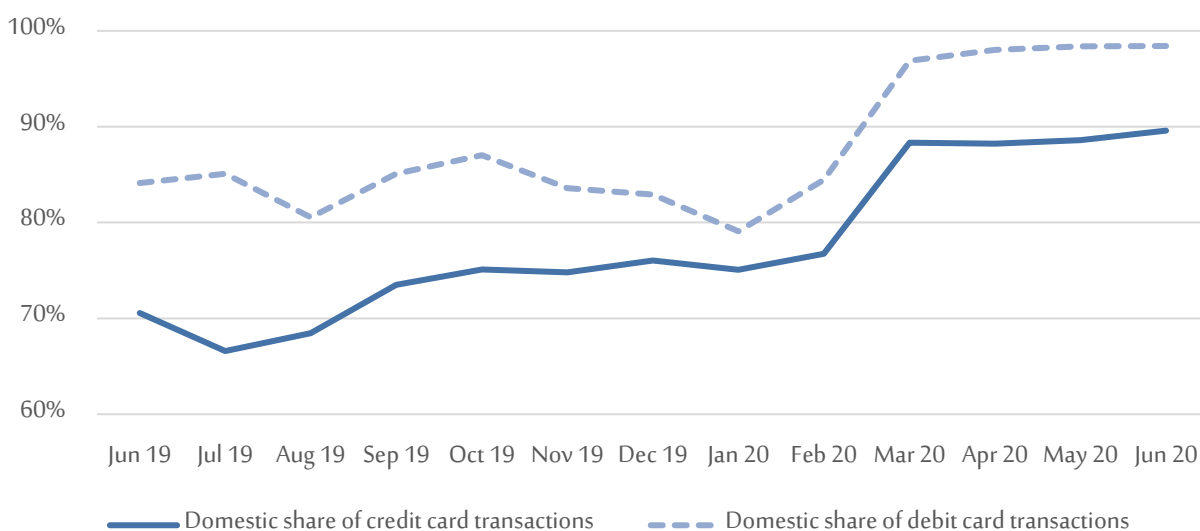
combined share had retreated to 19%, indicating that there is still a considerable difference in spending patterns compared to 2019.

**Figure 3.5: Percentage of PoS transactions accounted for by department stores and supermarkets in the Kingdom of Bahrain, June 2019 – June 2020**



*Source: Central Bank of Bahrain*

**Figure 3.6: Share of credit and debit card transactions accounted for by cards originating in the Kingdom of Bahrain vs. foreign cards, June 2019 – June 2020**

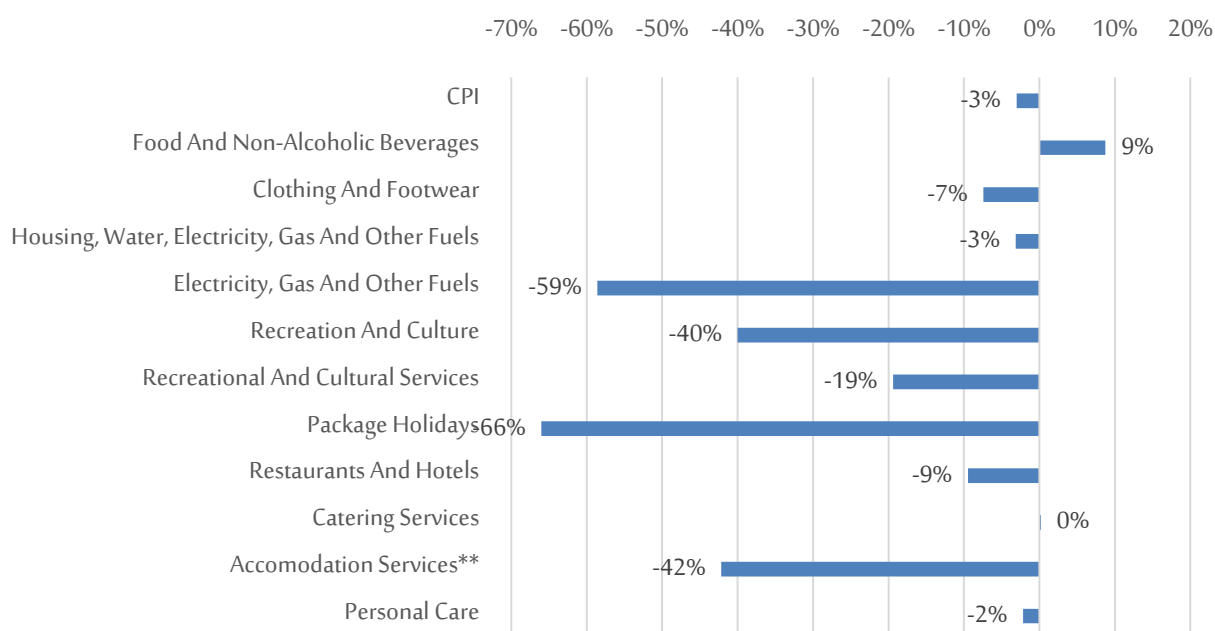


*Source: Central Bank of Bahrain*

The decline in tourism is also reflected in the decreasing usage of credit and debit cards that originate abroad, compared to those that are originate in the Kingdom of Bahrain. Figure 3.6 shows the domestic share of credit and debit card transactions in Bahrain for the period June 2019 – June 2020.

In June 2019, domestic credit cards accounted for 71% of point of sale transactions, and the corresponding figure for debit cards was 84%. By June 2020, with tourism down and following a significant outflow of expatriates, the two figures had risen to 90% and 98%, respectively.

**Figure 3.7: Percentage change in consumer price index (CPI) from January-June 2020 for the Kingdom of Bahrain**



*Source: Information and eGovernment Authority*

The demand shocks experienced by several sectors should result in comoving prices. Figure 3.7 shows the change in the consumer price index and selected subindices in the Kingdom of Bahrain for the period January – June 2020. As expected, the increased expenditure in supermarkets and department stores is reflected in higher prices, though there is surely a role for increased costs, both due to interrupted global supply chains, and due to increased health and safety measures by both types of retail establishment. In contrast, package holidays and accommodation services experienced deep declines in prices. The prices of electricity, gas, and other fuels declined sharply too, but this was due to a large, extraordinary subsidy offered to citizens as part of the government’s fiscal stimulus package.

In summary, these data reflect a voluntary and involuntary refocusing of consumption expenditures toward people's homes due to the Covid-19 pandemic and the associated government countermeasures.

Baker et al. (2020) examine the effect of the pandemic on consumption patterns in the US, and they uncover similar patterns to those described above for the case of Bahrain. Expenditure on air travel declines sharply, as does restaurants; whereas expenditure on supermarkets and on retail in general increases slightly. Moreover, these changes are most pronounced in the geographical areas that exhibited the strictest social distancing orders, such as legally-binding stay-at-home orders (Bahrain is too small for any geographical-based variation in government directives).

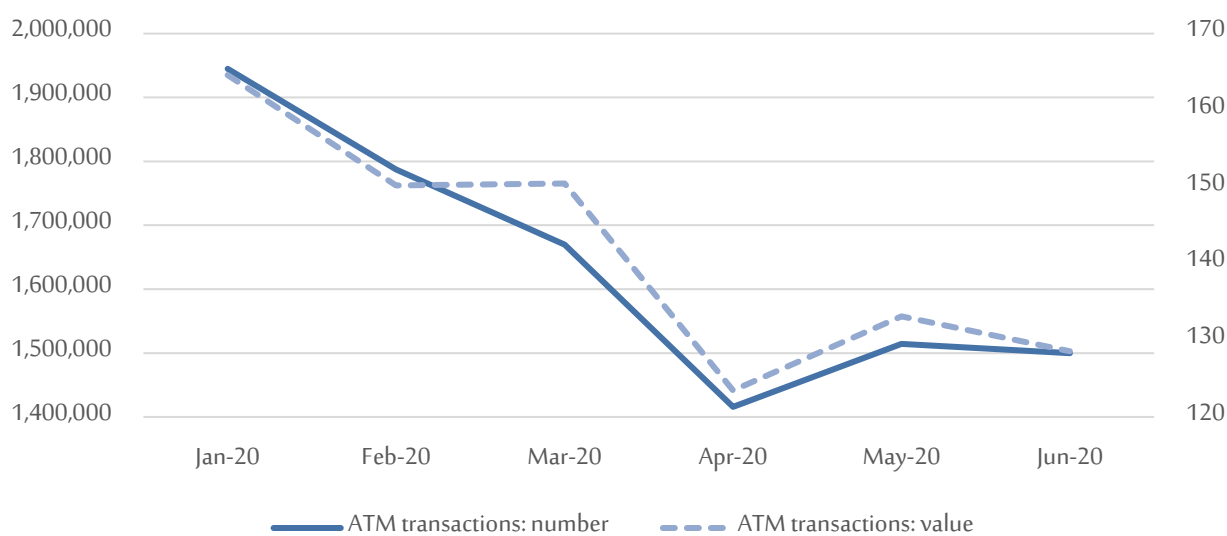
A notable corollary of these changes in consumption patterns is that consumer price inflation calculations become biased (Cavallo, 2020). Normally, household consumption baskets are so stagnant that the weights used to calculate consumer price inflation only need to be revised every few years. However, the pandemic has clearly had a profound and rapid effect on consumption patterns, necessitating an extraordinary update to inflation calculation methods. In this regard, the inflation data presented above should be treated as indicative rather than definitive.

#### **4. The Distribution of Payment Methods**

Experts are yet to arrive at a definitive picture regarding the transmission methods for Covid-19. However, authorities have confirmed that physical contact with respiratory droplets expelled from an infected person are a primary transmission mechanism. Moreover, people can catch COVID-19 by touching contaminated surfaces or objects – and then touching their eyes, nose or mouth. For these reasons, people across the world have begun to exhibit a preference for contactless mobile payment methods, though notably, there remains no evidence that Covid-19 can be transmitted through coins and banknotes (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>). CBB data for the Kingdom of Bahrain allows for an initial examination of trends in payment methods caused by the Covid-19 pandemic.

Data on the volume and value of cash transactions are not available, since many cash transactions are not recorded. However, the CBB does publish data on ATM transactions. Figure 4.1 shows the number and value of ATM transactions in the Kingdom of Bahrain during the period January – June 2020.

**Figure 4.1: ATM transactions number (left-axis) and value (right-axis) in BD million for the Kingdom of Bahrain, January – June 2020**



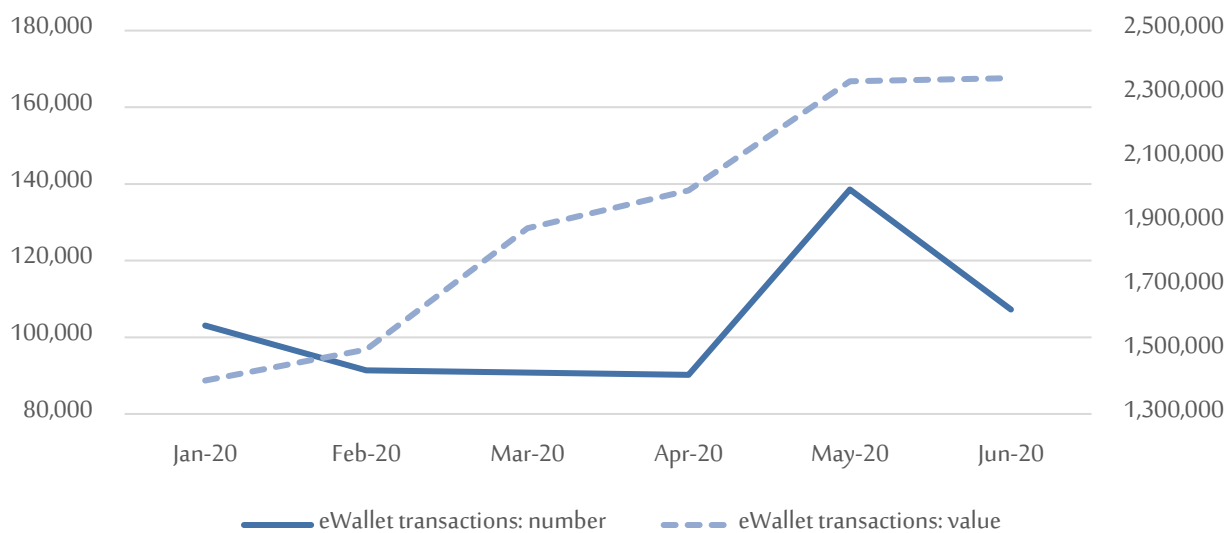
*Source: Benefit*

These data indicate a sharp decline from the last month prior to the pandemic's arrival in Bahrain (January) and the strictest lockdown period (April): the number of ATM transactions declined by 27%, while the gross value of withdrawals declined by 25%. However, this could simply be a reflection of decreased aggregate economic activity, rather than of switching away from one medium of exchange to another. Figure 4.2 shows the number and value of e-wallet transactions for the Kingdom of Bahrain for the period January – June 2020; e-wallets (b-wallet, Benefit Pay, Max Wallet, STC Pay, etc.) are a contactless form of payment that is executed via an individual's mobile phone, and represents a convenient alternative to cash.

The number of transactions did spike in May 2020, rising by 53% compared to February 2020, though it declined by 23% during June 2020. That said, the value of transactions has been rising steadily, with June 2020 levels representing a rise of 67% compared to January 2020. Yet, the gross value of these transactions is of the order of BD 2 million per month, which is dwarfed by the gross value of ATM

withdrawals each month, which is of the order of BD 140 million per month. Consequently, the sharp decline in ATM withdrawals likely represents a combination of decreasing aggregate economic activity and substitution away from cash, rather than purely the latter.

**Figure 4.2: e-wallet transactions number (left-axis) and value (right-axis) in BD for the Kingdom of Bahrain, January – June 2020**



*Source: Central Bank of Bahrain*

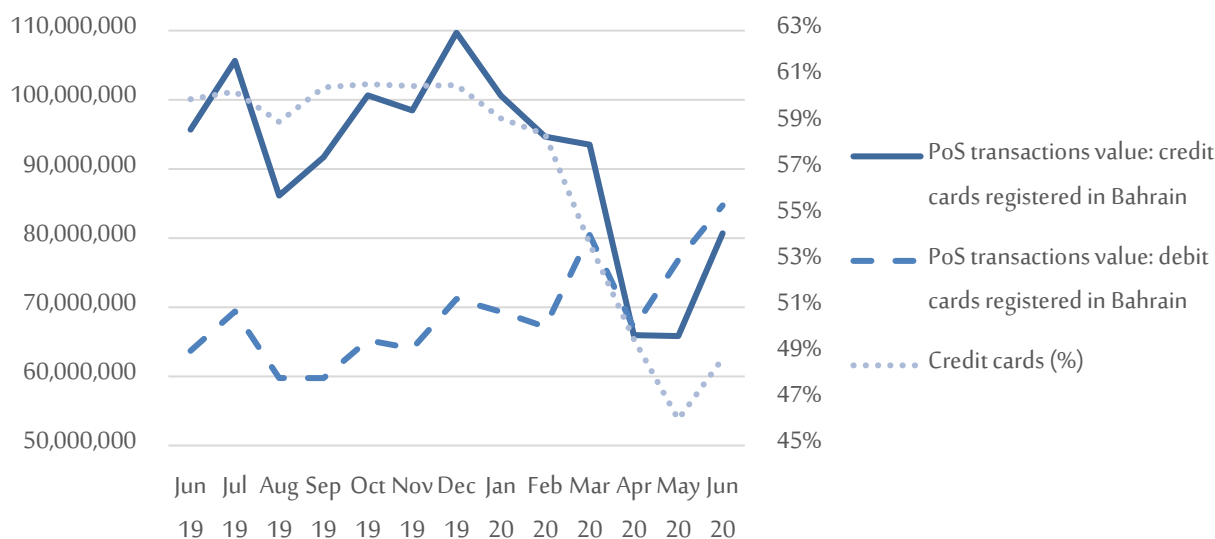
Point of sale transactions alone do not provide a definitive indication of evolving preferences for payment methods: the recently developed Wi-Fi technology that is built in to many debit and credit cards allows for contactless payment, whereas the traditional method of entering a PIN on a keypad involves significant physical contact; and at the time of writing (September 2020), the data on Wi-Fi vs. non-Wi-Fi transactions were not available.

The data on credit vs. debit card usage also indicate an evolution in preferences. Figure 4.3 shows the total value of point of sale transactions for both credit and debit cards originating in Bahrain, along with the percentage of value accounted for by credit cards, for the period June 2019 – June 2020.

These data indicate a significant decline in the percentage accounted for by credit cards, falling from 61% in December 2019 to a low of 46% during May 2020. To understand the reasons for this decline, we begin by noting that five factors typically affect the decision to use credit vs. debit cards: convenience (debit cards do not require the subsequent settling of the debt), security (debit cards have lower anti-

fraud protections), direct costs (credit cards have interest charges and annual fees), uncertainty (debit cards limit you to spending only what you have, and so there is no repayment uncertainty), and fringe benefits (credit cards offer airline miles, etc.).

**Figure 4.3: PoS transactions value for credit and debit cards registered in Bahrain (left-axis) and the percentage accounted for by credit cards (right-axis), June 2019 – June 2020**



*Source: Central Bank of Bahrain*

In the case of Bahrain during the Covid-19 pandemic, several factors are likely to have contributed to the shift toward debit cards. First, with wages protected for a large percentage of the population via the government’s fiscal stimulus, and opportunities to spend wages reduced significantly due to social distancing, it is likely that the current accounts of ordinary shoppers have risen on average. This has afforded shoppers a greater opportunity to use debit cards, as they might usually have insufficient balances to conduct purchases, forcing them to rely on credit. Moreover, by using a debit card when they have the choice, shoppers can decrease their exposure to the fees and interest associated with credit cards.

Second, airline miles are the most frequent fringe benefit associated with credit cards, but their value is highly diminished by a pandemic that has no clear end date. This decreases the net benefit associated with using a credit card, reinforcing the desire to avoid the fees and interest associated with credit cards.

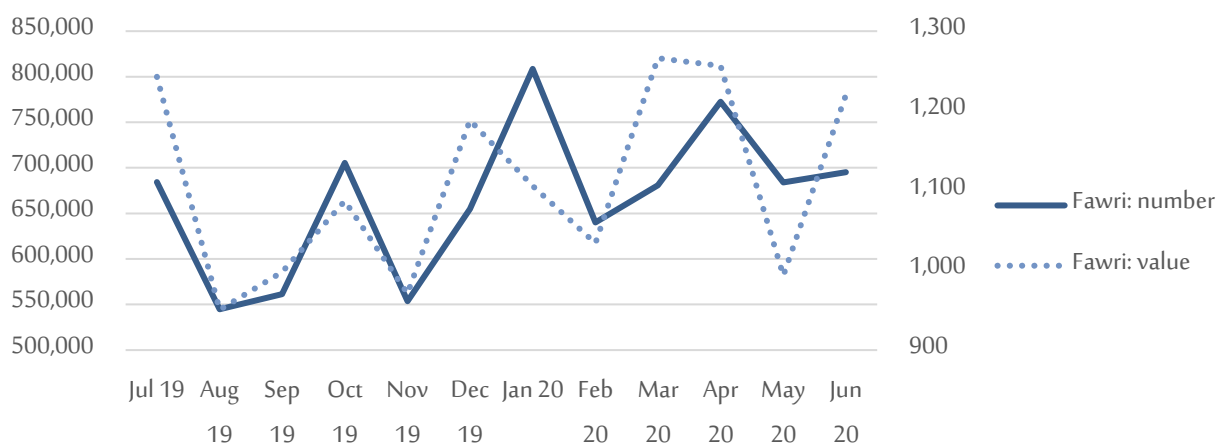


Third, the uncertainty associated with an economic crisis makes people shift toward the certainty offered by debit cards. Relatedly, debit cards are often used to buy necessities (groceries, paying bills, etc.), whereas credit cards are reserved for luxury goods; and as shown in section 3, consumption patterns have been shifting toward groceries.

Further evidence of shifts toward contactless mobile payment methods can be seen in the data on electronic fund transfers (EFTs). The Kingdom of Bahrain has three broad classes of same-day EFT: Fawri (transliteration of فوري, which means “immediate”), which occurs within a few hours, and has a daily limit of BD 5,000 per account; Fawri+, which is instant, and has a daily limit of BD 1,000; and Fawater (transliteration of فواتير, which means “bills”), which is a system for conveniently paying bills for a variety of service providers that have integrated their settlement systems with the EFT system.

Fawri+ transactions are especially popular for peer-to-peer transfers due to their immediate implementation. Moreover, e-wallet transactions are directly or indirectly forms of Fawri+ transactions: in the case of services such as Benefit Pay where the user’s bank account is directly tied to the e-wallet, each payment is an actual Fawri+ transaction and occurs simultaneously with a purchase/transfer; where in the case of services such as b-wallet, where customers transfer funds from their bank account to the e-wallet, that transfer is a Fawri+ transaction, though it generally precedes an actual purchase/transfer.

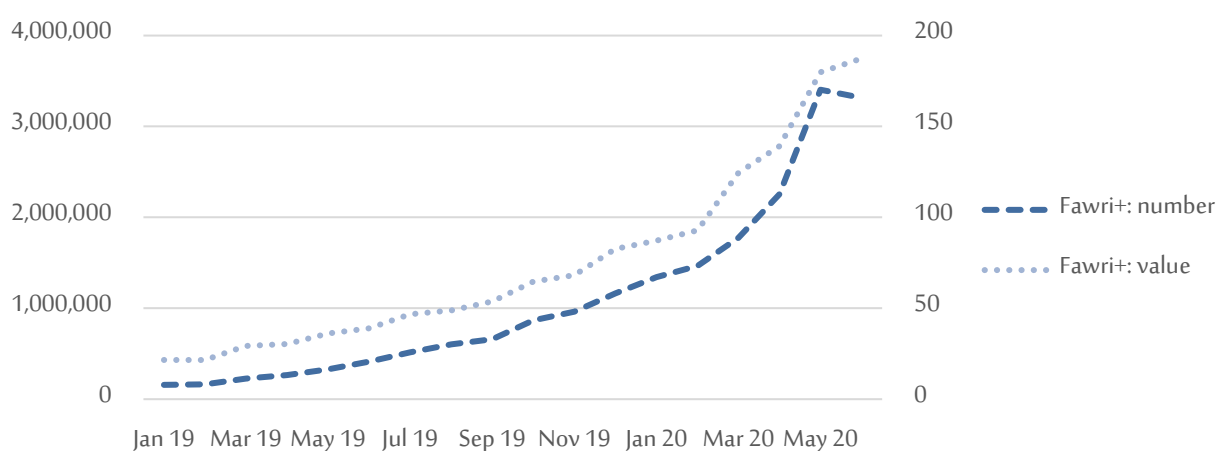
**Figure 4.4: Fawri transactions number (left-axis) and value (right-axis) in BD million for the Kingdom of Bahrain, July 2019 – June 2020**



*Source: Central Bank of Bahrain*

Figure 4.4 shows the total number and value of Fawri transactions in the Kingdom of Bahrain for the period July 2019 – June 2020. Both series are quite erratic as they primarily represent transfers of at least BD1,000 between corporations, with month-to-month rises and falls of the order of 15-20% being common. Both trend up during the sample period, though without any discernible impact of the Covid-19 pandemic. Note that in a typical month, the value of Fawri transfers equals BD 1 billion, meaning that such transfers dwarf the contribution of e-wallets to total financial activity.

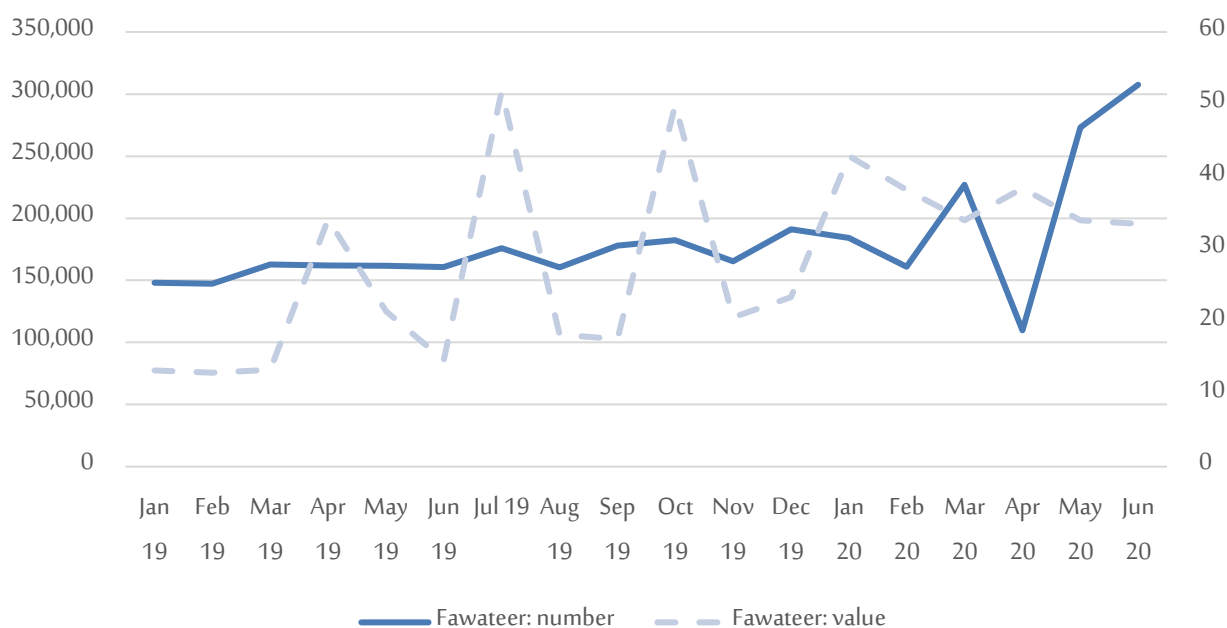
**Figure 4.5: Fawri+ transactions number (left-axis) and value (right-axis) in BD million for the Kingdom of Bahrain, January 2019 – June 2020**



*Source: Central Bank of Bahrain*

Figure 4.5 shows the total number and value of Fawri+ transactions for the period January 2019 – June 2020. Unlike Fawri transactions, Fawri+ transactions are highly stable month-to-month, in terms of both number and value; this is because they are primarily consumer-driven, and are capped at BD1,000 per transfer. However, in line with Fawri, the number and value of Fawri+ transactions both trend up throughout the sample period, partially reflecting the increasing popularity of e-wallets. The Fawri+ series do show an impact of the Covid-19 pandemic: during the period January 2019 – February 2020, the average monthly growth rate for the value of Fawri+ transactions was 12%; during the period March – June 2020, the average monthly growth rate rose to 20%, likely representing an increased preference for contactless mobile payment, both as part of e-wallet services and also as generic peer-to-peer transfers executed via the online and smartphone apps provided by retail banks.

**Figure 4.6: Fawateer transactions number (left-axis) and value (right-axis) in BD million for the Kingdom of Bahrain, January 2019 – June 2020**



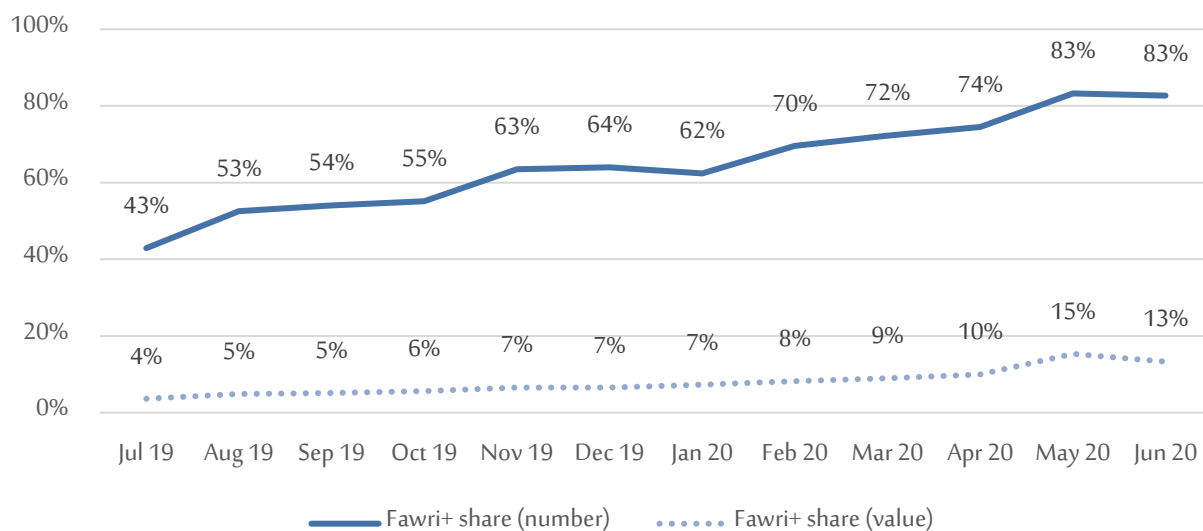
*Source: Central Bank of Bahrain*

Figure 4.6 shows the total number and value of Fawateer transactions during the period January 2019 – June 2020. Similar to Fawri, the value of Fawateer transactions is quite erratic on a month-to-month basis, though the number series is much smoother. Notably, the total value of Fawateer transactions is stable at around BD 30 million, but it rises sharply to BD 50 million by June 2020, presumably as residents of Bahrain start to pay their bills remotely at a higher frequency, both due to the closure of some face-to-face bill-paying options during the pandemic, and also due to the contactless nature of the online system. Further, the total value of Fawateer and Fawri+ transactions went from being approximately equal during 2019, to being of different orders, with the value of Fawri+ transactions becoming four times that of Fawateer.

Finally, Figure 4.7 compares Fawri to Fawri+ transactions in terms of number and value for the period July 2019 – June 2020. Fawri+ went from representing 43% of the number of Fawri and Fawri+ transactions in July 2019 to 83% in June 2020; while the value share rose from 4% to 13% during the same period. This is driven by growth in Fawri+, rather than switching or decline in Fawri; and likely reflects substitution away from cash, checks, and paper-based financial transactions executed in the

branches of retail banks, toward e-wallets. The value series also exhibits a visually discernible rise during the Covid-19 pandemic, as residents of Bahrain seek contactless mobile financial transfers.

**Figure 4.7: Fawri+ share of total number and value of Fawri and Fawri+ transactions for the Kingdom of Bahrain, July 2019 – June 2020**



*Source: Central Bank of Bahrain*

## 5. Summary

This report presents an initial examination of the data on financial transactions during the first half of 2020. The major findings are as follows.

First, social distancing measures – both voluntary and those imposed by the government – have caused a significant decrease in retail activity, reflected in the reduced number and value of point of sale transactions; and by June 2020, only a partial recovery had occurred.

Second, social distancing has also led to a significant restructuring of household consumption, with a renewed emphasis on consumption that can occur within homes. This means greater purchases of food, furniture, entertainment, and internet data were made at the expense of hotels, clothing, and travel. Moreover, when leaving the home, people prefer the convenience and perceived added safety of conducting their purchases in a department store or large supermarket.

Third, these shifts in demand are also reflected in changes in the prices of each sector, with prices rising in sectors that experience increased demand, and falling in sectors that experience reduced demand; though disruptions to international supply chains have also had an impact on prices. Given that the overall trend is a reduction of aggregate demand, the general index of consumer prices declined by 3% during the first half of 2020, despite the upward pressure on costs created by increased safety measures by retailers and increased global supply chain costs.

Fourth, in light of this significant recomposition of the typical household consumption basket, inflation indices may become biased, as traditional weights on goods and services are no longer valid. Therefore, the third conclusion needs to be reassessed once new weights have been determined.

Fifth, residents have been shifting away from cash toward contactless mobile payment methods, both out of necessity (stores being closed), and due to a combination of the perception that contact-based payment methods lead to an elevated risk of Covid-19 infection, and the need to use mobile methods in response to impediments to buying goods and services in person. In particular, there has been a marked rise in the usage of e-wallet services, and of Fawri+ and Fawateer services. Nevertheless, debit cards remained the most common electronic consumer payment method used in retail payments during the pandemic, followed by credit cards and e-wallets, respectively. Despite the health risks, many people are still using payment cards and/or cash in buying their daily needs of grocery and essential items.

In the long-term, as the transition to e-wallets continues, banks and Fintech companies should consider offering flexible and easily accessible mobile financial services, and should raise awareness among consumers of mobile payment systems to further encourage their usage.

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