

Supplemental Operational Performance Data

Set forth below are tables that provide supplemental information regarding the operational performance results for the three months ended March 31, 2021, as well as the prior eight quarterly reporting periods for the payment programs of Mastercard Incorporated and its consolidated subsidiaries, including our operating subsidiary, Mastercard International Incorporated (collectively, "Mastercard").

1. Branded Volume and Transactions

The tables below set forth the gross dollar volume ("GDV"), purchase volume, cash volume and the number of purchase transactions, cash transactions, and cards on a regional basis for Mastercard™-branded cards. Growth rates over prior periods are provided for volume-based data.

GDV (\$ Billions)											
All Mastercard Credit,	_										
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	\$459	\$480	\$491	\$519	\$472	\$407	\$483	\$530	\$518	\$1,949	\$1,892
Canada	39	46	47	49	40	39	45	49	44	181	173
Europe	429	478	508	532	467	397	519	534	503	1,947	1,917
Latin America	105	110	113	123	107	73	88	108	103	451	376
Worldwide less United States	1,031	1,114	1,159	1,223	1,086	916	1,135	1,221	1,167	4,527	4,358
United States	450	486	493	507	479	463	513	528	544	1,938	1,982
Worldwide	1,482	1,600	1,653	1,730	1,565	1,378	1,649	1,748	1,711	6,464	6,341
Mastercard Credit and Charge Programs											
Worldwide less United States	530	559	577	601	528	435	523	560	532	2,267	2,046
United States	212	237	244	254	227	183	214	237	226	947	861
Worldwide	742	796	821	855	755	618	737	797	758	3,214	2,907
Mastercard Debit and Prepaid Programs											
Worldwide less United States	501	554	582	622	558	481	612	661	636	2,260	2,312
United States	238	249	249	254	252	280	299	291	318	990	1,122
Worldwide	739	804	831	876	810	761	911	952	954	3,250	3,434

GDV Local Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	11.3%	12.2%	12.5%	11.8%	5.7%	-11.8%	-1.4%	-0.5%	5.1%	11.9%	-2.0%
Canada	5.8%	7.7%	8.8%	5.1%	4.1%	-12.6%	-3.0%	-0.7%	2.4%	6.9%	-3.2%
Europe	17.3%	18.5%	19.8%	17.4%	12.4%	-12.7%	2.7%	1.4%	4.8%	18.3%	0.8%
Latin America	13.3%	15.8%	18.2%	14.6%	12.5%	-16.9%	-6.7%	0.4%	5.6%	15.4%	-2.4%
Worldwide less United States	13.7%	15.0%	16.0%	14.2%	9.1%	-12.7%	-0.1%	0.4%	4.9%	14.7%	-0.9%
United States	7.5%	9.9%	11.6%	9.0%	6.3%	-4.9%	4.0%	4.0%	13.6%	9.5%	2.3%
Worldwide	11.7%	13.4%	14.6%	12.6%	8.2%	-10.2%	1.2%	1.5%	7.5%	13.1%	0.1%
Mastercard Credit and Charge Programs											
Worldwide less United States	9.0%	9.6%	11.0%	9.2%	3.8%	-17.5%	-7.5%	-6.8%	-2.4%	9.7%	-7.1%
United States	9.3%	12.3%	14.7%	11.4%	7.0%	-22.8%	-12.3%	-6.7%	-0.5%	12.0%	-9.1%
Worldwide	9.1%	10.4%	12.0%	9.8%	4.7%	-19.1%	-9.0%	-6.8%	-1.8%	10.3%	-7.7%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	19.1%	21.0%	21.4%	19.4%	14.6%	-7.8%	7.3%	7.5%	11.9%	20.2%	5.4%
United States	5.9%	7.7%	8.8%	6.7%	5.6%	12.1%	20.1%	14.8%	26.3%	7.3%	13.3%
Worldwide	14.5%	16.5%	17.3%	15.4%	11.6%	-1.4%	11.2%	9.6%	16.3%	16.0%	7.8%

Purchase Volume (\$ Billions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	\$307	\$319	\$327	\$347	\$310	\$281	\$330	\$363	\$357	\$1,301	\$1,285
Canada	37	44	45	47	39	36	44	47	42	173	166
Europe	286	320	339	355	313	266	353	368	350	1,300	1,300
Latin America	68	71	74	79	70	48	59	71	69	292	248
Worldwide less United States	699	753	786	828	732	631	785	850	818	3,066	2,999
United States	392	427	433	449	420	404	451	471	479	1,701	1,746
Worldwide	1,091	1,180	1,219	1,277	1,152	1,035	1,236	1,322	1,296	4,767	4,744
Mastercard Credit and Charge Programs											
Worldwide less United States	492	520	536	558	488	404	489	524	497	2,106	1,905
United States	203	228	234	244	217	178	211	232	220	909	837
Worldwide	695	748	770	801	705	582	700	756	717	3,015	2,743
Mastercard Debit and Prepaid Programs											
Worldwide less United States	207	233	250	270	244	227	296	326	321	960	1,093
United States	188	199	199	205	203	226	240	240	259	792	908
Worldwide	395	432	449	476	447	453	537	566	580	1,752	2,002

Purchase Volume Local Growth											
All Mastercard Credit,	-										
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	9.9%	10.1%	10.8%	10.7%	4.5%	-8.5%	-0.1%	0.7%	7.9%	10.4%	-0.8%
Canada	5.7%	7.7%	9.3%	5.5%	4.2%	-15.5%	-1.9%	-0.6%	3.2%	7.1%	-3.6%
Europe	18.3%	20.5%	21.7%	18.5%	12.6%	-12.9%	3.5%	3.2%	7.5%	19.8%	1.5%
Latin America	17.8%	20.2%	22.8%	19.3%	16.9%	-12.6%	-1.7%	6.9%	11.8%	20.0%	2.8%
Worldwide less United States	13.7%	15.0%	16.3%	14.4%	9.0%	-11.1%	1.3%	2.2%	7.8%	14.9%	0.3%
United States	9.0%	11.2%	12.6%	10.0%	7.2%	-5.5%	4.1%	5.0%	14.0%	10.7%	2.6%
Worldwide	12.0%	13.6%	15.0%	12.8%	8.3%	-9.0%	2.3%	3.2%	10.0%	13.4%	1.2%
Mastercard Credit and Charge Programs											
Worldwide less United States	9.4%	10.0%	11.3%	9.3%	3.4%	-17.6%	-7.0%	-6.3%	-1.5%	10.0%	-6.9%
United States	10.0%	12.5%	14.4%	11.4%	6.6%	-21.7%	-10.1%	-4.9%	1.4%	12.1%	-7.9%
Worldwide	9.5%	10.8%	12.2%	9.9%	4.4%	-18.9%	-8.0%	-5.8%	-0.6%	10.6%	-7.2%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	25.7%	28.0%	28.7%	26.7%	22.0%	3.3%	18.8%	19.5%	26.1%	27.3%	16.1%
United States	8.0%	9.6%	10.6%	8.5%	7.7%	13.1%	20.7%	16.8%	27.4%	9.2%	14.7%
Worldwide	16.6%	18.8%	20.0%	18.1%	15.1%	8.0%	19.6%	18.3%	26.7%	18.4%	15.4%

Purchase Transactions (Millions)											
All Mastercard Credit,	_										
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	5,592	6,177	6,562	6,917	6,319	5,901	6,809	7,357	7,099	25,249	26,387
Canada	611	710	748	753	653	572	721	728	648	2,821	2,674
Europe	8,306	9,581	10,230	10,789	10,232	9,053	11,711	11,733	11,312	38,906	42,728
Latin America	2,474	2,720	2,923	3,084	2,914	2,339	2,753	3,177	3,154	11,201	11,182
Worldwide less United States	16,982	19,189	20,463	21,543	20,118	17,865	21,994	22,995	22,213	78,176	82,971
United States	6,894	7,569	7,745	7,902	7,357	6,940	7,834	7,985	7,872	30,111	30,117
Worldwide	23,876	26,758	28,208	29,445	27,475	24,805	29,828	30,980	30,085	108,288	113,088
Mastercard Credit and Charge Programs											
Worldwide less United States	8,617	9,565	10,142	10,536	9,699	8,433	10,045	10,607	10,116	38,860	38,785
United States	2,250	2,557	2,687	2,793	2,464	2,031	2,422	2,622	2,414	10,287	9,540
Worldwide	10,867	12,122	12,829	13,329	12,164	10,464	12,467	13,229	12,530	49,148	48,324
Mastercard Debit and Prepaid Programs											
Worldwide less United States	8,365	9,624	10,321	11,007	10,418	9,432	11,949	12,388	12,097	39,316	44,187
United States	4,644	5,012	5,058	5,109	4,893	4,909	5,412	5,363	5,458	19,824	20,577
Worldwide	13,009	14,636	15,379	16,116	15,311	14,341	17,361	17,751	17,555	59,140	64,764

Purchase Transactions Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	18.8%	19.7%	21.2%	19.3%	13.0%	-4.5%	3.8%	6.4%	12.3%	19.8%	4.5%
Canada	10.2%	11.8%	14.9%	7.8%	7.0%	-19.5%	-3.6%	-3.3%	-0.8%	11.1%	-5.2%
Europe	28.6%	30.7%	31.5%	28.3%	23.2%	-5.5%	14.5%	8.7%	10.6%	29.8%	9.8%
Latin America	20.0%	24.5%	27.1%	21.9%	17.8%	-14.0%	-5.8%	3.0%	8.3%	23.4%	-0.2%
Worldwide less United States	23.2%	25.4%	26.8%	23.6%	18.5%	-6.9%	7.5%	6.7%	10.4%	24.7%	6.1%
United States	8.4%	10.2%	11.8%	9.1%	6.7%	-8.3%	1.1%	1.0%	7.0%	9.9%	0.0%
Worldwide	18.5%	20.7%	22.3%	19.3%	15.1%	-7.3%	5.7%	5.2%	9.5%	20.2%	4.4%
Mastercard Credit and Charge Programs											
Worldwide less United States	15.8%	18.2%	20.4%	16.9%	12.6%	-11.8%	-1.0%	0.7%	4.3%	17.9%	-0.2%
United States	11.4%	13.8%	15.8%	12.4%	9.5%	-20.6%	-9.9%	-6.1%	-2.0%	13.4%	-7.3%
Worldwide	14.8%	17.3%	19.4%	15.9%	11.9%	-13.7%	-2.8%	-0.7%	3.0%	16.9%	-1.7%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	31.9%	33.3%	33.8%	30.7%	24.6%	-2.0%	15.8%	12.5%	16.1%	32.4%	12.4%
United States	7.0%	8.5%	9.7%	7.4%	5.4%	-2.0%	7.0%	5.0%	11.5%	8.2%	3.8%
Worldwide	21.8%	23.7%	24.8%	22.3%	17.7%	-2.0%	12.9%	10.1%	14.7%	23.2%	9.5%

Cash Volume (\$ Billions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	\$151	\$161	\$163	\$173	\$162	\$126	\$154	\$166	\$161	\$648	\$607
Canada	2	2	2	2	2	3	1	2	2	7	8
Europe	142	159	169	177	154	131	166	166	153	647	617
Latin America	37	39	39	43	37	25	30	36	34	159	128
Worldwide less United States	332	361	373	395	355	285	350	370	350	1,461	1,360
United States	59	59	60	59	59	59	62	57	65	237	237
Worldwide	391	420	433	453	414	343	412	427	415	1,698	1,596
Mastercard Credit and Charge Programs											
Worldwide less United States	38	39	41	43	40	31	34	36	35	161	141
United States	9	9	10	10	10	5	4	5	6	38	24
Worldwide	47	48	51	53	50	35	38	41	41	200	164
Mastercard Debit and Prepaid Programs											
Worldwide less United States	294	322	332	351	315	254	316	334	315	1,300	1,219
United States	50	50	50	49	49	54	59	52	59	198	213
Worldwide	344	372	382	400	363	308	375	386	374	1,498	1,432

Cash Volume Local Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	14.2%	16.6%	15.9%	14.1%	8.1%	-18.5%	-4.2%	-3.0%	-0.7%	15.2%	-4.49
Canada	8.7%	7.4%	-2.8%	-3.8%	0.5%	58.6%	-30.7%	-2.9%	-13.6%	2.1%	5.8%
Europe	15.2%	14.9%	16.1%	15.2%	11.9%	-12.4%	1.1%	-2.3%	-0.7%	15.4%	-0.7%
Latin America	5.8%	8.5%	10.4%	6.8%	4.9%	-24.1%	-15.4%	-10.4%	-5.1%	7.9%	-11.0%
Worldwide less United States	13.6%	14.9%	15.3%	13.6%	9.3%	-16.0%	-3.0%	-3.5%	-1.2%	14.3%	-3.4%
United States	-1.9%	1.7%	4.8%	2.0%	0.2%	-0.8%	3.8%	-3.4%	10.6%	1.6%	0.0%
Worldwide	11.0%	12.8%	13.7%	12.0%	8.0%	-13.7%	-2.0%	-3.5%	0.5%	12.4%	-2.9%
Mastercard Credit and Charge Programs											
Worldwide less United States	4.3%	4.2%	7.1%	7.9%	8.9%	-16.6%	-14.2%	-14.5%	-13.7%	5.9%	-9.4%
United States	-5.2%	8.1%	19.9%	13.4%	14.2%	-49.4%	-65.0%	-50.0%	-41.0%	8.7%	-38.89
Worldwide	2.3%	5.0%	9.4%	8.9%	9.9%	-23.2%	-24.5%	-21.3%	-19.3%	6.4%	-15.29
Mastercard Debit and Prepaid Programs											
Worldwide less United States	14.9%	16.3%	16.4%	14.4%	9.4%	-15.9%	-1.6%	-2.1%	0.4%	15.5%	-2.7%
United States	-1.3%	0.6%	2.2%	0.0%	-2.3%	8.2%	17.7%	6.2%	21.6%	0.4%	7.5%
Worldwide	12.3%	13.9%	14.3%	12.4%	7.7%	-12.5%	1.0%	-1.1%	3.2%	13.2%	-1.39

Cash Transactions (Millions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	1,627	1,691	1,739	1,819	1,728	1,318	1,578	1,676	1,621	6,875	6,301
Canada	6	6	6	6	5	4	5	5	4	22	18
Europe	1,044	1,173	1,195	1,225	1,059	845	1,062	1,001	910	4,636	3,968
Latin America	275	295	302	320	288	219	245	280	268	1,192	1,032
Worldwide less United States	2,952	3,164	3,241	3,369	3,081	2,386	2,890	2,962	2,804	12,726	11,320
United States	321	336	339	322	306	284	321	295	311	1,318	1,206
Worldwide	3,272	3,500	3,580	3,691	3,388	2,670	3,212	3,257	3,114	14,044	12,526
Mastercard Credit and Charge Programs											
Worldwide less United States	173	185	189	197	179	131	159	157	146	744	626
United States	8	9	9	9	9	4	6	6	6	36	25
Worldwide	181	194	198	206	188	136	164	163	152	779	651
Mastercard Debit and Prepaid Programs											
Worldwide less United States	2,778	2,979	3,053	3,172	2,902	2,255	2,732	2,806	2,658	11,982	10,694
United States	313	327	329	313	298	279	315	289	305	1,282	1,181
Worldwide	3,091	3,306	3,382	3,485	3,200	2,534	3,047	3,094	2,963	13,264	11,876

Cash Transactions Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 202
APMEA	12.1%	12.1%	13.7%	10.0%	6.2%	-22.0%	-9.2%	-7.8%	-6.2%	11.9%	-8.
Canada	-3.5%	-11.2%	-6.8%	-11.3%	-1.0%	-33.7%	-18.9%	-17.2%	-17.8%	-8.3%	-17.8
Europe	11.3%	11.3%	12.0%	11.5%	1.5%	-27.9%	-11.1%	-18.3%	-14.1%	11.5%	-14.4
Latin America	4.3%	8.5%	10.6%	7.5%	4.6%	-25.9%	-18.7%	-12.3%	-7.0%	7.8%	-13.4
Worldwide less United States	11.0%	11.4%	12.7%	10.2%	4.4%	-24.6%	-10.8%	-12.1%	-9.0%	11.3%	-11.0
United States	-2.1%	-1.3%	0.4%	-1.8%	-4.6%	-15.5%	-5.2%	-8.5%	1.5%	-1.2%	-8.5
Worldwide	9.6%	10.1%	11.4%	9.1%	3.5%	-23.7%	-10.3%	-11.8%	-8.1%	10.0%	-10.8
Mastercard Credit and Charge Programs											
Worldwide less United States	2.2%	2.6%	3.7%	5.2%	3.4%	-29.0%	-16.0%	-20.3%	-18.8%	3.4%	-15.8
United States	-1.4%	4.7%	7.2%	4.8%	5.2%	-50.5%	-40.3%	-33.5%	-30.2%	3.9%	-30.8
Worldwide	2.0%	2.7%	3.8%	5.2%	3.4%	-30.0%	-17.1%	-20.9%	-19.3%	3.5%	-16.5
Mastercard Debit and Prepaid Programs											
Worldwide less United States	11.6%	12.0%	13.4%	10.6%	4.5%	-24.3%	-10.5%	-11.6%	-8.4%	11.9%	-10.7
United States	-2.1%	-1.4%	0.2%	-2.0%	-4.8%	-14.5%	-4.2%	-7.7%	2.4%	-1.3%	-7.8
Worldwide	10.1%	10.5%	11.9%	9.3%	3.5%	-23.3%	-9.9%	-11.2%	-7.4%	10.4%	-10.5

Cards (Millions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	812	823	832	831	850	862	874	885	892	831	885
Canada	61	61	62	61	61	62	61	62	64	61	62
Europe	540	558	579	595	607	614	631	652	673	595	652
Latin America	188	195	200	210	215	217	222	234	245	210	234
Worldwide less United States	1,601	1,637	1,673	1,698	1,733	1,754	1,789	1,833	1,874	1,698	1,833
United States	448	457	466	474	478	476	485	503	516	474	503
Worldwide	2,049	2,094	2,140	2,172	2,211	2,231	2,274	2,336	2,390	2,172	2,336
Mastercard Credit and Charge Programs											
Worldwide less United States	652	666	682	697	705	703	709	717	725	697	717
United States	230	234	238	242	243	236	234	246	249	242	246
Worldwide	883	900	920	938	948	939	943	963	974	938	963
Mastercard Debit and Prepaid Programs											
Worldwide less United States	949	971	991	1,001	1,028	1,051	1,080	1,116	1,149	1,001	1,116
United States	218	223	229	233	235	240	250	258	267	233	258
Worldwide	1,166	1,194	1,220	1,234	1,263	1,291	1,331	1,374	1,416	1,234	1,374

Cards Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	Q1'21	FY 2019	FY 2020
APMEA	14.1%	12.7%	10.0%	5.0%	4.6%	4.8%	5.1%	6.4%	5.0%	5.0%	6.4%
Canada	9.6%	6.4%	5.9%	1.4%	0.7%	0.5%	-1.8%	1.4%	3.3%	1.4%	1.4%
Europe	11.2%	11.7%	13.2%	12.6%	12.4%	10.0%	9.0%	9.7%	10.9%	12.6%	9.7%
Latin America	11.8%	13.7%	13.9%	14.9%	14.5%	11.2%	11.0%	11.5%	13.8%	14.9%	11.5%
Worldwide less United States	12.7%	12.2%	11.4%	8.6%	8.2%	7.1%	6.9%	8.0%	8.1%	8.6%	8.0%
United States	7.9%	9.1%	8.7%	8.6%	6.7%	4.3%	3.9%	6.0%	8.0%	8.6%	6.0%
Worldwide	11.6%	11.5%	10.8%	8.6%	7.9%	6.5%	6.3%	7.6%	8.1%	8.6%	7.6%
Mastercard Credit and Charge Programs											
Worldwide less United States	8.2%	8.3%	8.9%	8.6%	8.1%	5.6%	3.9%	3.0%	2.8%	8.6%	3.0%
United States	9.4%	10.8%	9.1%	6.6%	5.4%	1.1%	-1.6%	1.5%	2.6%	6.6%	1.5%
Worldwide	8.5%	9.0%	8.9%	8.1%	7.4%	4.4%	2.5%	2.6%	2.8%	8.1%	2.6%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	15.9%	15.0%	13.2%	8.6%	8.4%	8.2%	9.0%	11.5%	11.8%	8.6%	11.5%
United States	6.2%	7.2%	8.3%	10.9%	8.1%	7.7%	9.6%	10.7%	13.7%	10.9%	10.7%
Worldwide	14.0%	13.5%	12.3%	9.0%	8.3%	8.1%	9.1%	11.4%	12.1%	9.0%	11.4%

Note that the figures in the preceding tables may not sum due to rounding; growth represents change from the comparable yearago period.

Footnote

The tables set forth the gross dollar volume ("GDV"), purchase volume, cash volume and the number of purchase transactions, cash transactions, and cards on a regional and global basis for Mastercard™-branded cards. Growth rates over prior periods are provided for volume-based data.

Debit transactions on Maestro® and Cirrus®-branded cards and transactions involving brands other than Mastercard are not included in the preceding tables.

For purposes of the table: GDV represents purchase volume plus cash volume and includes the impact of balance transfers and convenience checks; "purchase volume" means the aggregate dollar amount of purchases made with Mastercard-branded cards for the relevant period; and "cash volume" means the aggregate dollar amount of cash disbursements and includes the impact of balance transfers and convenience checks obtained with Mastercard- branded cards for the relevant period. The number of cards includes virtual cards, which are Mastercard-branded payment accounts that do not generally have physical cards associated with them.

The Mastercard payment product is comprised of credit, charge, debit and prepaid programs, and data relating to each type of program is included in the tables. The tables include information with respect to transactions involving Mastercard-branded cards that are not switched by Mastercard and transactions for which Mastercard does not earn significant revenues.

Information denominated in U.S. dollars is calculated by applying an established U.S. dollar/local currency exchange rate for each local currency in which Mastercard volumes are reported. These exchange rates are calculated on a quarterly basis using the average exchange rate for each quarter. Mastercard reports period-over-period rates of change in purchase volume and cash volume on the basis of local currency information, in order to eliminate the impact of changes in the value of foreign currencies against the U.S. dollar in calculating such rates of change.

The data set forth in the GDV, purchase volume, purchase transactions, cash volume and cash transactions columns is provided by Mastercard customers and is subject to verification by Mastercard and partial cross-checking against information provided by Mastercard's transaction switching systems. The data set forth in the cards columns is provided by Mastercard customers and is subject to certain limited verification by Mastercard. A portion of the data set forth in the cards columns reflects the impact of routine portfolio changes among customers and other practices that may lead to over counting of the underlying data in certain circumstances. All data is subject to revision and amendment by Mastercard or Mastercard's customers.

Effective Q1'18, our operational metrics exclude Venezuelan data as a result of the deconsolidation of our Venezuelan subsidiaries at that time.

2. Switched Transactions

The table below sets forth the total number of transactions switched by Mastercard and growth from the comparable year-ago period.

Switched						
	Trans.					
Period	(Mil.)	Growth (1)				
2021Q1	23,772	9%				
2020Q4	24,756	4%				
2020Q3	23,807	5%				
2020Q2	19,369	-10%				
2020Q1	22,132	13%				
2019Q4	23,807	19%				
2019Q3	22,891	19%				
2019Q2	21,429	18%				
2019Q1	19,205	17%				
FY 2020	90,064	3%				
FY 2019	87,332	19%				

3. Cross Border Volume

The table below sets forth the Cross Border Volume Growth from the comparable year-ago period, on a local currency basis and U.S. dollar-converted basis, for all Mastercard-branded programs.

	Growth	Growth	
Period	(Local) ⁽¹⁾	(USD) ⁽¹⁾	
2021Q1	-17%	-13%	
2020Q4	-29%	-27%	
2020Q3	-36%	-35%	
2020Q2	-45%	-47%	
2020Q1	-1%	-3%	
2019Q4	16%	14%	
2019Q3	16%	13%	
2019Q2	16%	10%	
2019Q1	14%	7%	
FY 2020	-29%	-29%	
FY 2019	16%	11%	

Note:

(1) The cross-border volume and switched transactions growth rates have been normalized to eliminate the effects of differing switching and carryover days between periods. Carryover days are those where transactions and volumes from days where the company does not clear and settle are processed.

4. Cards

The tables below set forth the number of Mastercard, Maestro and Total Cards with growth rates from the comparable year-ago period.

Mastercard Cards			Maestro Cards		Total WW Mastercard & Maestro Cards			
	Cards	Actual		Cards	Actual		Cards	Actual
Period	(Mil.)	Growth	Period	(Mil.)	Growth	Period	(Mil.)	Growth
2021Q1	2,390	8.1%	2021Q1	411	-2.7%	2021Q1	2,802	6.4%
2020Q4	2,336	7.6%	2020Q4	414	-3.2%	2020Q4	2,750	5.8%
2020Q3	2,274	6.3%	2020Q3	416	-4.1%	2020Q3	2,690	4.5%
2020Q2	2,231	6.5%	2020Q2	418	-4.6%	2020Q2	2,649	4.6%
2020Q1	2,211	7.9%	2020Q1	423	-6.4%	2020Q1	2,634	5.3%
2019Q4	2,172	8.6%	2019Q4	427	-10.6%	2019Q4	2,600	4.9%
2019Q3	2,140	10.8%	2019Q3	434	-14.7%	2019Q3	2,574	5.5%
2019Q2	2,094	11.5%	2019Q2	438	-15.7%	2019Q2	2,532	5.6%
2019Q1	2,049	11.6%	2019Q1	452	-14.5%	2019Q1	2,501	5.7%