



Supplemental Operational Performance Data

Set forth below are tables that provide supplemental information regarding the operational performance results for the three months ended December 31, 2020, 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	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	\$468	\$459	\$480	\$491	\$519	\$472	\$407	\$483	\$530	\$1,949	\$1,892
Canada	46	39	46	47	49	40	39	45	49	181	173
Europe	458	429	478	508	532	467	396	518	533	1,947	1,915
Latin America	111	105	110	113	123	107	73	88	108	451	376
Worldwide less United States	1,083	1,031	1,114	1,159	1,223	1,086	916	1,135	1,220	4,527	4,356
United States	465	450	486	493	507	478	463	513	527	1,937	1,981
Worldwide	1,548	1,482	1,600	1,652	1,730	1,564	1,378	1,648	1,747	6,464	6,337
Mastercard Credit and Charge Programs											
Worldwide less United States	560	530	559	577	601	528	435	523	560	2,267	2,046
United States	228	212	237	244	254	227	183	214	237	947	861
Worldwide	788	742	796	821	855	755	618	737	796	3,214	2,906
Mastercard Debit and Prepaid Programs											
Worldwide less United States	523	501	554	582	622	558	481	612	660	2,260	2,310
United States	238	238	249	249	254	251	280	299	291	990	1,121
Worldwide	760	739	804	831	876	809	760	911	950	3,250	3,431

GDV Local Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	13.0%	11.3%	12.2%	12.5%	11.8%	5.7%	-11.8%	-1.4%	-0.5%	11.9%	-2.0%
Canada	11.6%	5.8%	7.7%	8.8%	5.1%	4.1%	-12.6%	-3.0%	-0.7%	6.9%	-3.2%
Europe	19.7%	17.3%	18.5%	19.8%	17.4%	12.3%	-12.8%	2.7%	1.2%	18.3%	0.7%
Latin America	16.9%	13.3%	15.8%	18.2%	14.6%	12.5%	-16.9%	-6.7%	0.3%	15.4%	-2.4%
Worldwide less United States	16.1%	13.7%	15.0%	16.0%	14.2%	9.0%	-12.7%	-0.1%	0.3%	14.7%	-0.9%
United States	10.2%	7.5%	9.9%	11.6%	9.0%	6.2%	-4.9%	4.0%	3.9%	9.5%	2.3%
Worldwide	14.2%	11.7%	13.4%	14.6%	12.6%	8.1%	-10.2%	1.1%	1.4%	13.1%	0.1%
Mastercard Credit and Charge Programs											
Worldwide less United States	12.8%	9.0%	9.6%	11.0%	9.2%	3.8%	-17.5%	-7.5%	-6.8%	9.7%	-7.1%
United States	9.8%	9.3%	12.3%	14.6%	11.4%	7.0%	-22.8%	-12.4%	-6.8%	12.0%	-9.2%
Worldwide	11.9%	9.1%	10.4%	12.0%	9.8%	4.7%	-19.1%	-9.0%	-6.8%	10.3%	-7.7%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	19.8%	19.1%	21.0%	21.4%	19.4%	14.5%	-7.9%	7.2%	7.3%	20.2%	5.3%
United States	10.6%	5.9%	7.7%	8.8%	6.7%	5.5%	12.1%	20.1%	14.6%	7.3%	13.2%
Worldwide	16.8%	14.5%	16.5%	17.3%	15.4%	11.5%	-1.4%	11.1%	9.4%	16.0%	7.7%

Purchase Volume (\$ Billions)											
All Mastercard Credit, Charge, Debit and Prepaid Programs											
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	\$318	\$307	\$319	\$327	\$347	\$310	\$281	\$330	\$363	\$1,301	\$1,285
Canada	45	37	44	45	47	39	36	44	47	173	166
Europe	304	286	320	339	355	313	266	353	368	1,300	1,300
Latin America	71	68	71	74	79	70	48	59	71	292	248
Worldwide less United States	737	699	753	786	828	732	631	786	850	3,066	2,999
United States	408	392	427	433	449	419	404	451	471	1,701	1,745
Worldwide	1,145	1,091	1,180	1,219	1,277	1,151	1,035	1,236	1,321	4,767	4,743
Mastercard Credit and Charge Programs											
Worldwide less United States	520	492	520	536	558	488	404	489	524	2,106	1,906
United States	219	203	228	234	244	217	178	210	232	909	837
Worldwide	739	695	748	770	801	705	582	700	756	3,014	2,743
Mastercard Debit and Prepaid Programs											
Worldwide less United States	217	207	233	250	271	244	227	296	326	960	1,093
United States	189	188	199	199	205	203	226	240	239	792	908
Worldwide	406	395	432	449	476	446	453	537	565	1,752	2,001

Purchase Volume Local Growth											
All Mastercard Credit, Charge, Debit and Prepaid Programs											
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	13.6%	9.9%	10.1%	10.8%	10.7%	4.5%	-8.5%	-0.1%	0.7%	10.4%	-0.8%
Canada	11.5%	5.7%	7.7%	9.3%	5.5%	4.2%	-15.5%	-1.9%	-0.6%	7.1%	-3.6%
Europe	22.8%	18.3%	20.5%	21.7%	18.5%	12.6%	-12.9%	3.6%	3.2%	19.8%	1.5%
Latin America	21.7%	17.8%	20.2%	22.8%	19.3%	16.9%	-12.6%	-1.7%	7.0%	20.0%	2.8%
Worldwide less United States	17.9%	13.7%	15.0%	16.3%	14.4%	9.0%	-11.1%	1.3%	2.2%	14.9%	0.3%
United States	11.4%	9.0%	11.2%	12.6%	10.0%	7.0%	-5.5%	4.0%	4.9%	10.7%	2.6%
Worldwide	15.5%	12.0%	13.6%	15.0%	12.8%	8.3%	-9.0%	2.3%	3.1%	13.4%	1.1%
Mastercard Credit and Charge Programs											
Worldwide less United States	13.5%	9.4%	10.0%	11.3%	9.3%	3.4%	-17.6%	-7.0%	-6.2%	10.0%	-6.9%
United States	10.4%	10.0%	12.5%	14.4%	11.4%	6.6%	-21.7%	-10.1%	-5.0%	12.1%	-7.9%
Worldwide	12.5%	9.5%	10.8%	12.2%	9.9%	4.4%	-18.9%	-7.9%	-5.8%	10.6%	-7.2%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	29.9%	25.7%	28.0%	28.7%	26.7%	22.0%	3.3%	18.8%	19.4%	27.3%	16.0%
United States	12.6%	8.0%	9.6%	10.6%	8.5%	7.5%	13.1%	20.7%	16.6%	9.2%	14.6%
Worldwide	21.3%	16.6%	18.8%	20.0%	18.1%	15.0%	8.0%	19.6%	18.2%	18.4%	15.4%

Purchase Transactions (Millions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	5,798	5,592	6,177	6,562	6,917	6,319	5,901	6,810	7,364	25,248	26,395
Canada	698	611	710	748	753	653	572	721	728	2,821	2,674
Europe	8,410	8,306	9,581	10,230	10,789	10,225	9,045	11,703	11,725	38,906	42,699
Latin America	2,530	2,474	2,720	2,923	3,084	2,914	2,339	2,753	3,176	11,201	11,181
Worldwide less United States	17,436	16,982	19,189	20,463	21,542	20,111	17,857	21,988	22,993	78,176	82,949
United States	7,242	6,894	7,569	7,745	7,902	7,347	6,941	7,830	7,980	30,111	30,098
Worldwide	24,678	23,876	26,758	28,208	29,445	27,458	24,798	29,818	30,973	108,287	113,047
Mastercard Credit and Charge Programs											
Worldwide less United States	9,012	8,617	9,565	10,142	10,536	9,692	8,426	10,037	10,609	38,860	38,763
United States	2,485	2,250	2,557	2,687	2,793	2,464	2,031	2,421	2,621	10,287	9,537
Worldwide	11,497	10,867	12,122	12,829	13,329	12,156	10,457	12,457	13,230	49,147	48,300
Mastercard Debit and Prepaid Programs											
Worldwide less United States	8,424	8,365	9,624	10,321	11,006	10,419	9,432	11,951	12,384	39,316	44,186
United States	4,758	4,644	5,012	5,058	5,109	4,883	4,910	5,410	5,358	19,824	20,561
Worldwide	13,181	13,009	14,636	15,379	16,116	15,302	14,341	17,361	17,743	59,140	64,747

Purchase Transactions Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	21.9%	18.8%	19.7%	21.2%	19.3%	13.0%	-4.5%	3.8%	6.5%	19.8%	4.5%
Canada	16.6%	10.2%	11.8%	14.9%	7.8%	7.0%	-19.5%	-3.6%	-3.3%	11.1%	-5.2%
Europe	30.2%	28.6%	30.7%	31.5%	28.3%	23.1%	-5.6%	14.4%	8.7%	29.8%	9.7%
Latin America	21.2%	20.0%	24.5%	27.1%	21.9%	17.8%	-14.0%	-5.8%	3.0%	23.4%	-0.2%
Worldwide less United States	25.4%	23.2%	25.4%	26.8%	23.6%	18.4%	-6.9%	7.5%	6.7%	24.7%	6.1%
United States	11.2%	8.4%	10.2%	11.7%	9.1%	6.6%	-8.3%	1.1%	1.0%	9.9%	0.0%
Worldwide	20.9%	18.5%	20.7%	22.3%	19.3%	15.0%	-7.3%	5.7%	5.2%	20.2%	4.4%
Mastercard Credit and Charge Programs											
Worldwide less United States	18.0%	15.8%	18.2%	20.4%	16.9%	12.5%	-11.9%	-1.0%	0.7%	17.9%	-0.3%
United States	11.9%	11.4%	13.8%	15.8%	12.4%	9.5%	-20.6%	-9.9%	-6.1%	13.4%	-7.3%
Worldwide	16.6%	14.8%	17.3%	19.4%	15.9%	11.9%	-13.7%	-2.9%	-0.7%	16.9%	-1.7%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	34.5%	31.9%	33.3%	33.8%	30.7%	24.6%	-2.0%	15.8%	12.5%	32.4%	12.4%
United States	10.9%	7.0%	8.5%	9.7%	7.4%	5.1%	-2.0%	6.9%	4.9%	8.2%	3.7%
Worldwide	24.9%	21.8%	23.7%	24.8%	22.3%	17.6%	-2.0%	12.9%	10.1%	23.2%	9.5%

Cash Volume (\$ Billions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	\$149	\$151	\$161	\$163	\$173	\$162	\$126	\$154	\$167	\$648	\$608
Canada	2	2	2	2	2	2	3	1	2	7	8
Europe	154	142	159	169	177	154	131	165	165	647	614
Latin America	40	37	39	39	43	37	25	30	36	159	128
Worldwide less United States	346	332	361	373	395	354	284	349	369	1,461	1,357
United States	57	59	59	60	59	59	59	62	57	237	237
Worldwide	403	391	420	433	453	413	343	412	426	1,698	1,594
Mastercard Credit and Charge Programs											
Worldwide less United States	40	38	39	41	43	40	31	34	36	161	140
United States	9	9	9	10	10	10	5	4	5	38	24
Worldwide	49	47	48	51	53	50	35	37	41	200	164
Mastercard Debit and Prepaid Programs											
Worldwide less United States	305	294	322	332	351	314	254	316	334	1,300	1,217
United States	49	50	50	50	49	49	54	59	52	198	213
Worldwide	354	344	372	382	400	363	308	374	385	1,498	1,430

Cash Volume Local Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	11.8%	14.2%	16.6%	15.9%	14.1%	8.1%	-18.5%	-4.1%	-2.9%	15.2%	-4.4%
Canada	13.8%	8.7%	7.4%	-2.8%	-3.8%	0.5%	58.6%	-30.7%	-3.1%	2.1%	5.7%
Europe	14.0%	15.2%	14.9%	16.1%	15.2%	11.6%	-12.6%	0.8%	-2.9%	15.4%	-1.0%
Latin America	9.4%	5.8%	8.5%	10.4%	6.8%	4.9%	-24.1%	-15.4%	-10.8%	7.9%	-11.1%
Worldwide less United States	12.5%	13.6%	14.9%	15.3%	13.6%	9.2%	-16.0%	-3.1%	-3.8%	14.3%	-3.6%
United States	2.1%	-1.9%	1.7%	4.8%	2.0%	0.2%	-0.8%	3.7%	-3.4%	1.6%	-0.1%
Worldwide	10.9%	11.0%	12.8%	13.7%	12.0%	7.9%	-13.8%	-2.2%	-3.7%	12.4%	-3.1%
Mastercard Credit and Charge Programs											
Worldwide less United States	5.0%	4.3%	4.2%	7.1%	7.9%	8.9%	-16.5%	-14.4%	-15.2%	5.9%	-9.6%
United States	-3.3%	-5.2%	8.1%	19.9%	13.4%	14.2%	-49.4%	-65.0%	-50.0%	8.7%	-38.8%
Worldwide	3.4%	2.3%	5.0%	9.4%	8.9%	9.9%	-23.2%	-24.7%	-21.9%	6.4%	-15.4%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	13.6%	14.9%	16.3%	16.4%	14.4%	9.3%	-16.0%	-1.7%	-2.3%	15.5%	-2.8%
United States	3.1%	-1.3%	0.6%	2.2%	0.0%	-2.3%	8.2%	17.6%	6.2%	0.4%	7.5%
Worldwide	12.0%	12.3%	13.9%	14.3%	12.4%	7.6%	-12.5%	0.9%	-1.3%	13.2%	-1.4%

Cash Transactions (Millions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	1,654	1,627	1,691	1,739	1,819	1,729	1,318	1,579	1,661	6,876	6,287
Canada	6	6	6	6	6	5	4	5	5	22	18
Europe	1,099	1,044	1,173	1,195	1,225	1,059	845	1,061	999	4,636	3,965
Latin America	297	275	295	302	320	288	219	245	280	1,192	1,032
Worldwide less United States	3,056	2,952	3,164	3,241	3,369	3,082	2,385	2,890	2,945	12,726	11,302
United States	328	321	336	339	322	306	284	321	295	1,318	1,206
Worldwide	3,385	3,272	3,500	3,580	3,692	3,388	2,669	3,211	3,240	14,044	12,508
Mastercard Credit and Charge Programs											
Worldwide less United States	187	173	185	189	197	179	131	158	156	744	625
United States	9	8	9	9	9	9	4	6	6	36	25
Worldwide	196	181	194	198	206	188	136	164	163	779	650
Mastercard Debit and Prepaid Programs											
Worldwide less United States	2,869	2,778	2,979	3,053	3,172	2,902	2,254	2,732	2,789	11,983	10,677
United States	319	313	327	329	313	298	279	315	289	1,282	1,181
Worldwide	3,189	3,091	3,306	3,382	3,486	3,200	2,533	3,047	3,078	13,264	11,858

Cash Transactions Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	12.7%	12.1%	12.1%	13.7%	10.0%	6.3%	-22.1%	-9.2%	-8.7%	11.9%	-8.6%
Canada	15.2%	-3.5%	-11.2%	-6.8%	-11.3%	-1.0%	-33.7%	-18.9%	-17.3%	-8.3%	-17.8%
Europe	9.7%	11.3%	11.3%	12.0%	11.5%	1.5%	-28.0%	-11.2%	-18.4%	11.5%	-14.5%
Latin America	6.6%	4.3%	8.5%	10.6%	7.5%	4.6%	-25.9%	-18.7%	-12.3%	7.8%	-13.4%
Worldwide less United States	11.0%	11.0%	11.4%	12.7%	10.2%	4.4%	-24.6%	-10.8%	-12.6%	11.3%	-11.2%
United States	0.8%	-2.1%	-1.3%	0.4%	-1.8%	-4.6%	-15.5%	-5.3%	-8.4%	-1.2%	-8.5%
Worldwide	9.9%	9.6%	10.1%	11.4%	9.1%	3.5%	-23.8%	-10.3%	-12.2%	10.0%	-10.9%
Mastercard Credit and Charge Programs											
Worldwide less United States	2.2%	2.2%	2.6%	3.7%	5.2%	3.4%	-29.0%	-16.0%	-20.5%	3.4%	-15.9%
United States	0.4%	-1.4%	4.7%	7.2%	4.8%	5.2%	-50.5%	-40.3%	-33.5%	3.9%	-30.8%
Worldwide	2.1%	2.0%	2.7%	3.8%	5.2%	3.4%	-30.0%	-17.2%	-21.1%	3.5%	-16.6%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	11.6%	11.6%	12.0%	13.4%	10.6%	4.5%	-24.4%	-10.5%	-12.1%	11.9%	-10.9%
United States	0.8%	-2.1%	-1.4%	0.2%	-2.0%	-4.8%	-14.5%	-4.2%	-7.7%	-1.3%	-7.9%
Worldwide	10.4%	10.1%	10.5%	11.9%	9.3%	3.5%	-23.4%	-9.9%	-11.7%	10.5%	-10.6%

Cards (Millions)											
All Mastercard Credit, Charge, Debit and Prepaid Programs											
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	791	812	822	831	831	849	860	873	884	831	884
Canada	61	61	61	62	62	62	63	62	63	62	63
Europe	528	540	558	579	595	607	613	631	651	595	651
Latin America	183	188	195	200	210	216	217	223	234	210	234
Worldwide less United States	1,563	1,601	1,637	1,673	1,698	1,734	1,754	1,788	1,832	1,698	1,832
United States	437	448	457	467	475	478	477	484	502	475	502
Worldwide	2,000	2,049	2,094	2,140	2,173	2,212	2,231	2,272	2,334	2,173	2,334
Mastercard Credit and Charge Programs											
Worldwide less United States	641	652	665	682	697	706	703	709	721	697	721
United States	227	230	234	238	242	243	237	234	246	242	246
Worldwide	868	882	899	920	939	949	939	943	966	939	966
Mastercard Debit and Prepaid Programs											
Worldwide less United States	922	949	971	991	1,001	1,028	1,051	1,080	1,112	1,001	1,112
United States	210	218	223	229	233	235	240	250	257	233	257
Worldwide	1,132	1,166	1,194	1,220	1,234	1,263	1,291	1,329	1,368	1,234	1,368

Cards Growth											
All Mastercard Credit, Charge, Debit and Prepaid Programs											
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20	Q4'20	FY 2019	FY 2020
APMEA	13.8%	14.0%	12.6%	9.9%	5.0%	4.6%	4.7%	5.0%	6.4%	5.0%	6.4%
Canada	15.7%	9.6%	6.4%	5.9%	2.9%	2.3%	2.0%	-0.3%	1.3%	2.9%	1.3%
Europe	11.2%	11.2%	11.7%	13.2%	12.6%	12.4%	9.9%	9.0%	9.4%	12.6%	9.4%
Latin America	3.8%	11.8%	13.7%	13.9%	14.9%	14.6%	11.3%	11.1%	11.5%	14.9%	11.5%
Worldwide less United States	11.8%	12.6%	12.2%	11.4%	8.6%	8.3%	7.1%	6.9%	7.9%	8.6%	7.9%
United States	6.5%	7.9%	9.1%	8.8%	8.7%	6.7%	4.4%	3.7%	5.8%	8.7%	5.8%
Worldwide	10.6%	11.5%	11.5%	10.8%	8.6%	8.0%	6.6%	6.2%	7.4%	8.6%	7.4%
Mastercard Credit and Charge Programs											
Worldwide less United States	6.8%	8.2%	8.2%	8.8%	8.6%	8.2%	5.6%	3.9%	3.4%	8.6%	3.4%
United States	7.6%	9.4%	10.8%	9.2%	6.6%	5.5%	1.2%	-1.6%	1.5%	6.6%	1.5%
Worldwide	7.0%	8.5%	8.9%	8.9%	8.1%	7.5%	4.5%	2.5%	2.9%	8.1%	2.9%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	15.5%	15.9%	15.0%	13.2%	8.6%	8.4%	8.2%	8.9%	11.0%	8.6%	11.0%
United States	5.3%	6.2%	7.2%	8.3%	10.9%	8.1%	7.8%	9.3%	10.4%	10.9%	10.4%
Worldwide	13.5%	14.0%	13.5%	12.3%	9.0%	8.3%	8.1%	9.0%	10.9%	9.0%	10.9%

Note that the figures in the preceding tables may not sum due to rounding; growth represents change from the comparable year-ago 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 reflect the impact of the Venezuela deconsolidation. Prior to Q1’18 all metrics include Venezuela. We are providing additional information regarding our Switched Transactions and Card growth rates. The adjusted growth rates eliminate Venezuelan Switched Transactions and Card counts from prior periods. This information is being provided so that you can better understand the underlying growth rates of our operating metrics.

2. Switched Transactions

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

Period	Switched	
	Trans. (Mil.)	Growth ⁽¹⁾⁽²⁾
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%
2018Q4	20,124	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.

Period	Growth	Growth
	(Local) ⁽²⁾	(USD) ⁽²⁾
2020Q4	-29%	-27%
2020Q3	-36%	-35%
2020Q2	-45%	-47%
2020Q1	-1%	-3%
2019Q4	16%	14%
2019Q3	16%	13%
2019Q2	16%	10%
2019Q1	14%	7%
2018Q4	16%	12%
FY 2020	-29%	-29%
FY 2019	16%	11%

Note:

- (1) Growth rates eliminate Venezuela transactions from current and past periods
- (2) 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			
Period	Cards	Actual	Growth	Period	Cards	Actual	Growth	Period	Cards	Actual	Growth
	(Mil.)	Growth	Adj for Ven		(Mil.)	Growth	Adj for Ven		(Mil.)	Growth	Adj for Ven
2020Q4	2,334	7.4%	7%	2020Q4	416	-2.7%	-3%	2020Q4	2,750	5.8%	6%
2020Q3	2,272	6.2%	6%	2020Q3	418	-3.8%	-4%	2020Q3	2,690	4.5%	5%
2020Q2	2,231	6.6%	7%	2020Q2	418	-4.7%	-5%	2020Q2	2,648	4.6%	5%
2020Q1	2,212	8.0%	8%	2020Q1	423	-6.3%	-6%	2020Q1	2,635	5.4%	5%
2019Q4	2,173	8.6%	9%	2019Q4	428	-10.6%	-11%	2019Q4	2,600	4.9%	5%
2019Q3	2,140	10.8%	11%	2019Q3	434	-14.7%	-15%	2019Q3	2,573	5.5%	5%
2019Q2	2,094	11.5%	11%	2019Q2	438	-15.7%	-16%	2019Q2	2,532	5.6%	6%
2019Q1	2,049	11.5%	12%	2019Q1	452	-14.5%	-14%	2019Q1	2,500	5.7%	6%
2018Q4	2,000	10.6%	11%	2018Q4	478	-19.7%	-14%	2018Q4	2,478	3.1%	5%