



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, 2017, as well as the prior eight quarterly reporting periods for the payment programs of Mastercard International Incorporated and Mastercard Europe SA (collectively, "Mastercard"), the principal operating subsidiaries of Mastercard Incorporated.

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	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	\$363	\$349	\$372	\$380	\$379	\$371	\$394	\$414	\$435	\$1,480	\$1,613
Canada	34	29	36	36	38	34	39	41	43	140	157
Europe	343	319	352	336	336	311	356	396	413	1,344	1,476
Latin America	83	74	79	83	90	86	93	97	106	326	383
Worldwide less United States	823	771	840	836	843	803	880	948	998	3,289	3,629
United States	378	372	391	383	387	379	404	407	423	1,533	1,613
Worldwide	1,201	1,143	1,230	1,219	1,230	1,182	1,285	1,355	1,420	4,822	5,242
Mastercard Credit and Charge Programs											
Worldwide less United States	456	421	458	465	466	445	475	508	530	1,810	1,958
United States	181	169	184	182	189	178	196	198	207	724	780
Worldwide	637	590	642	647	655	624	671	706	738	2,534	2,738
Mastercard Debit and Prepaid Programs											
Worldwide less United States	367	349	382	371	377	358	405	440	467	1,479	1,671
United States	197	203	207	201	198	201	208	209	215	809	833
Worldwide	564	552	588	572	575	559	614	649	682	2,288	2,504

GDV Local Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	13.7%	13.0%	12.9%	9.9%	7.3%	8.0%	8.2%	9.3%	12.6%	10.6%	9.6%
Canada	13.8%	8.7%	10.9%	9.4%	9.5%	12.3%	10.3%	8.7%	9.6%	9.6%	10.1%
Europe	15.8%	18.3%	13.9%	4.5%	3.2%	1.3%	4.8%	15.0%	15.9%	9.5%	9.6%
Europe adjusted for Article 8	18%	20%	19%	17%	16%	14%	15%	16%	17%	18%	16%
Latin America	15.1%	15.1%	15.4%	14.2%	14.5%	15.4%	15.4%	14.8%	16.5%	14.8%	15.6%
Worldwide less United States	14.7%	15.1%	13.4%	8.0%	6.4%	6.2%	7.6%	12.2%	14.2%	10.5%	10.2%
WW less USA adjusted for Article 8	15%	16%	15%	13%	11%	11%	12%	13%	15%	14%	13%
United States	8.5%	9.9%	7.4%	4.8%	2.4%	1.9%	3.5%	6.2%	9.2%	6.0%	5.2%
Worldwide	12.7%	13.4%	11.4%	7.0%	5.1%	4.8%	6.3%	10.3%	12.7%	9.1%	8.6%
Worldwide adjusted for Article 8	13%	14%	13%	10%	8%	8%	9%	11%	13%	11%	10%
Mastercard Credit and Charge Programs											
Worldwide less United States	9.5%	8.6%	7.9%	6.2%	5.8%	7.4%	6.9%	8.8%	10.2%	7.1%	8.4%
United States	9.3%	11.4%	6.8%	4.0%	4.2%	5.4%	6.6%	8.6%	10.0%	6.4%	7.7%
Worldwide	9.4%	9.4%	7.6%	5.5%	5.3%	6.8%	6.8%	8.8%	10.2%	6.9%	8.2%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	21.9%	24.1%	20.9%	10.4%	7.1%	4.7%	8.4%	16.3%	19.2%	15.1%	12.4%
United States	7.8%	8.6%	7.8%	5.5%	0.8%	-1.0%	0.8%	4.0%	8.4%	5.6%	3.0%
Worldwide	16.6%	17.9%	16.0%	8.6%	4.9%	2.6%	5.7%	12.0%	15.5%	11.6%	9.1%

Purchase Volume (\$ Billions)												
All Mastercard Credit,												
Charge, Debit and Prepaid Programs												
	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17		FY 2016	FY 2017
APMEA	\$245	\$232	\$248	\$256	\$260	\$253	\$264	\$282	\$297		\$996	\$1,095
Canada	33	28	34	35	36	32	37	39	42		133	150
Europe	234	218	234	213	214	199	226	253	266		878	943
Latin America	47	43	47	51	56	55	58	61	67		196	240
Worldwide less United States	559	520	563	555	565	539	584	634	671		2,203	2,429
United States	324	316	335	327	333	324	348	347	366		1,311	1,385
Worldwide	883	836	897	881	898	863	932	982	1,038		3,513	3,814
Mastercard Credit and Charge Programs												
Worldwide less United States	417	385	419	426	427	407	435	467	489		1,657	1,798
United States	174	162	176	174	180	170	187	188	198		693	743
Worldwide	590	547	596	600	607	577	622	654	687		2,349	2,541
Mastercard Debit and Prepaid Programs												
Worldwide less United States	142	135	143	129	139	132	149	168	182		546	630
United States	151	154	159	152	153	154	161	160	168		618	642
Worldwide	293	289	302	282	291	286	309	327	350		1,164	1,272

Purchase Volume Local Growth												
All Mastercard Credit,												
Charge, Debit and Prepaid Programs												
	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17		FY 2016	FY 2017
APMEA	13.4%	11.8%	11.1%	8.3%	7.9%	9.3%	8.1%	10.0%	11.1%		9.7%	9.6%
Canada	14.5%	9.6%	10.7%	9.9%	10.1%	13.2%	11.7%	9.3%	9.9%		10.1%	10.9%
Europe	13.5%	14.5%	8.7%	-2.6%	-2.7%	-3.2%	1.8%	16.2%	17.5%		4.1%	8.3%
<i>Europe adjusted for Article 8</i>	<i>16%</i>	<i>16%</i>	<i>15%</i>	<i>16%</i>	<i>16%</i>	<i>17%</i>	<i>17%</i>	<i>19%</i>	<i>20%</i>		<i>16%</i>	<i>18%</i>
Latin America	16.1%	15.2%	15.3%	15.2%	16.9%	18.1%	18.7%	18.2%	20.7%		15.7%	19.0%
Worldwide less United States	13.7%	13.1%	10.4%	4.5%	4.5%	5.3%	6.7%	13.1%	14.4%		7.9%	10.0%
<i>WW less USA adjusted for Article 8</i>	<i>15%</i>	<i>14%</i>	<i>13%</i>	<i>12%</i>	<i>12%</i>	<i>13%</i>	<i>13%</i>	<i>14%</i>	<i>15%</i>		<i>12%</i>	<i>14%</i>
United States	8.8%	10.3%	7.9%	4.8%	2.7%	2.3%	3.8%	6.4%	10.0%		6.3%	5.7%
Worldwide	11.9%	12.0%	9.5%	4.6%	3.8%	4.1%	5.6%	10.6%	12.8%		7.3%	8.4%
<i>Worldwide adjusted for Article 8</i>	<i>12%</i>	<i>12%</i>	<i>11%</i>	<i>9%</i>	<i>8%</i>	<i>9%</i>	<i>9%</i>	<i>11%</i>	<i>13%</i>		<i>10%</i>	<i>11%</i>
Mastercard Credit and Charge Programs												
Worldwide less United States	10.5%	9.3%	8.4%	6.8%	6.1%	7.7%	7.3%	9.2%	11.1%		7.6%	8.9%
United States	8.8%	11.1%	6.9%	3.8%	3.8%	4.9%	6.1%	7.9%	10.0%		6.2%	7.3%
Worldwide	10.0%	9.9%	8.0%	5.9%	5.4%	6.8%	6.9%	8.8%	10.8%		7.2%	8.4%
Mastercard Debit and Prepaid Programs												
Worldwide less United States	24.5%	25.2%	16.5%	-2.5%	0.0%	-1.5%	5.2%	25.4%	24.3%		8.8%	13.5%
United States	8.8%	9.6%	9.1%	6.0%	1.3%	-0.3%	1.3%	4.7%	9.9%		6.4%	3.9%
Worldwide	15.9%	16.3%	12.5%	2.0%	0.7%	-0.9%	3.1%	14.4%	17.0%		7.5%	8.4%

Purchase Transactions (Millions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	3,337	3,266	3,567	3,768	4,154	4,080	4,419	4,666	4,898	14,754	18,063
Canada	488	446	511	527	543	502	571	582	599	2,027	2,254
Europe	4,935	4,856	5,155	4,867	5,134	4,995	5,585	6,026	6,451	20,012	23,057
Latin America	1,518	1,484	1,562	1,638	1,742	1,731	1,819	1,927	2,087	6,426	7,565
Worldwide less United States	10,279	10,052	10,795	10,799	11,572	11,308	12,395	13,201	14,034	43,218	50,938
United States	5,896	5,775	6,168	6,057	6,005	5,782	6,254	6,315	6,508	24,004	24,859
Worldwide	16,174	15,827	16,963	16,856	17,577	17,089	18,649	19,516	20,542	67,222	75,796
Mastercard Credit and Charge Programs											
Worldwide less United States	6,027	5,778	6,216	6,420	6,717	6,473	6,997	7,310	7,644	25,131	28,424
United States	1,993	1,842	2,016	2,018	2,065	1,885	2,095	2,137	2,220	7,942	8,337
Worldwide	8,020	7,620	8,232	8,438	8,783	8,358	9,092	9,446	9,864	33,073	36,760
Mastercard Debit and Prepaid Programs											
Worldwide less United States	4,251	4,274	4,579	4,379	4,855	4,835	5,398	5,892	6,390	18,087	22,514
United States	3,903	3,933	4,152	4,039	3,940	3,896	4,159	4,178	4,288	16,063	16,522
Worldwide	8,154	8,207	8,731	8,418	8,794	8,731	9,557	10,070	10,677	34,149	39,036

Purchase Transactions Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	20.8%	21.9%	22.8%	20.6%	24.5%	24.9%	23.9%	23.8%	17.9%	22.5%	22.4%
Canada	16.0%	13.4%	12.7%	12.3%	11.3%	12.4%	11.8%	10.5%	10.3%	12.4%	11.2%
Europe	22.1%	23.3%	17.6%	5.1%	4.0%	2.9%	8.3%	23.8%	25.7%	11.9%	15.2%
<i>Europe adjusted for Article 8</i>	26%	26%	25%	24%	22%	22%	23%	26%	28%	24%	25%
Latin America	10.7%	10.8%	12.7%	13.5%	14.7%	16.7%	16.5%	17.6%	19.8%	13.0%	17.7%
Worldwide less United States	19.6%	20.4%	18.2%	11.7%	12.6%	12.5%	14.8%	22.2%	21.3%	15.5%	17.9%
<i>WW less USA adjusted for Article 8</i>	21%	21%	21%	20%	21%	22%	22%	23%	22%	21%	22%
United States	11.1%	12.9%	10.5%	6.8%	1.9%	0.1%	1.4%	4.3%	8.4%	7.8%	3.6%
Worldwide	16.3%	17.5%	15.3%	9.9%	8.7%	8.0%	9.9%	15.8%	16.9%	12.6%	12.8%
<i>Worldwide adjusted for Article 8</i>	17%	18%	17%	15%	14%	13%	14%	16%	17%	16%	15%
Mastercard Credit and Charge Programs											
Worldwide less United States	11.5%	11.9%	12.1%	11.0%	11.5%	12.0%	12.6%	13.9%	13.8%	11.6%	13.1%
United States	11.9%	14.6%	9.9%	5.7%	3.6%	2.3%	3.9%	5.9%	7.5%	8.1%	5.0%
Worldwide	11.6%	12.5%	11.6%	9.7%	9.5%	9.7%	10.4%	11.9%	12.3%	10.7%	11.1%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	33.2%	34.2%	27.7%	12.8%	14.2%	13.1%	17.9%	34.5%	31.6%	21.4%	24.5%
United States	10.7%	12.1%	10.8%	7.3%	0.9%	-0.9%	0.2%	3.5%	8.8%	7.6%	2.9%
Worldwide	21.4%	22.6%	19.1%	10.1%	7.8%	6.4%	9.5%	19.6%	21.4%	14.5%	14.3%

Cash Volume (\$ Billions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	\$117	\$117	\$124	\$124	\$119	\$119	\$130	\$132	\$138	\$484	\$519
Canada	2	2	2	2	2	2	2	2	2	7	7
Europe	110	101	119	123	123	112	130	144	147	465	532
Latin America	36	31	32	32	34	32	35	36	39	130	142
Worldwide less United States	265	251	277	281	277	264	296	314	326	1,086	1,200
United States	53	56	56	57	54	56	57	59	56	222	228
Worldwide	318	307	333	338	331	320	353	373	383	1,309	1,428
Mastercard Credit and Charge Programs											
Worldwide less United States	39	36	39	39	39	38	39	42	41	153	160
United States	7	7	8	8	8	8	9	10	9	32	37
Worldwide	47	43	46	47	48	46	48	52	50	184	197
Mastercard Debit and Prepaid Programs											
Worldwide less United States	225	215	239	242	238	226	257	272	285	934	1,040
United States	46	49	48	48	46	47	48	49	47	191	191
Worldwide	271	263	287	291	284	273	305	321	332	1,124	1,231

Cash Volume Local Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	14.3%	15.3%	16.6%	13.2%	6.0%	5.5%	8.3%	7.9%	16.0%	12.7%	9.5%
Canada	1.1%	-4.6%	13.8%	-0.4%	-3.5%	-2.6%	-13.0%	-2.0%	2.2%	1.4%	-4.1%
Europe	21.1%	27.4%	25.6%	19.7%	15.3%	10.4%	10.4%	13.0%	13.2%	21.5%	11.9%
Latin America	13.8%	15.0%	15.7%	12.6%	10.8%	11.1%	10.4%	9.6%	9.9%	13.4%	10.2%
Worldwide less United States	16.9%	19.7%	20.2%	15.8%	10.5%	8.1%	9.3%	10.3%	13.9%	16.3%	10.5%
United States	6.6%	7.2%	4.2%	4.4%	1.1%	-0.4%	1.5%	4.8%	4.2%	4.2%	2.5%
Worldwide	15.0%	17.2%	17.2%	13.7%	8.8%	6.5%	8.0%	9.4%	12.4%	14.1%	9.2%
Mastercard Credit and Charge Programs											
Worldwide less United States	0.3%	1.3%	2.2%	0.1%	3.0%	4.7%	3.3%	4.7%	0.9%	1.6%	3.3%
United States	20.7%	19.0%	5.8%	7.1%	13.3%	16.0%	17.6%	23.4%	9.3%	10.9%	16.5%
Worldwide	3.0%	3.9%	2.7%	1.3%	4.7%	6.6%	5.6%	7.9%	2.3%	3.1%	5.6%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	20.4%	23.4%	23.7%	18.8%	11.8%	8.7%	10.3%	11.2%	16.1%	19.1%	11.7%
United States	4.7%	5.7%	4.0%	3.9%	-0.8%	-2.9%	-1.0%	1.6%	3.2%	3.2%	0.2%
Worldwide	17.4%	19.7%	19.9%	16.0%	9.6%	6.5%	8.4%	9.6%	14.1%	16.1%	9.8%

Cash Transactions (Millions)											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	1,196	1,202	1,253	1,294	1,290	1,272	1,361	1,375	1,466	5,040	5,473
Canada	6	5	6	6	5	6	6	6	5	22	22
Europe	842	812	910	916	925	861	947	976	998	3,563	3,782
Latin America	249	240	251	252	264	254	260	262	278	1,008	1,053
Worldwide less United States	2,293	2,260	2,420	2,469	2,485	2,392	2,573	2,618	2,747	9,633	10,331
United States	332	338	350	350	324	320	338	346	326	1,362	1,330
Worldwide	2,625	2,598	2,769	2,819	2,809	2,712	2,911	2,964	3,073	10,995	11,661
Mastercard Credit and Charge Programs											
Worldwide less United States	189	176	189	187	189	175	186	185	183	741	730
United States	9	9	9	10	9	8	9	9	9	37	36
Worldwide	198	185	198	196	199	183	195	195	192	778	765
Mastercard Debit and Prepaid Programs											
Worldwide less United States	2,104	2,083	2,231	2,282	2,295	2,217	2,387	2,433	2,564	8,892	9,601
United States	323	330	340	340	315	312	329	336	317	1,325	1,294
Worldwide	2,427	2,413	2,572	2,623	2,610	2,529	2,716	2,769	2,881	10,217	10,896

Cash Transactions Growth											
All Mastercard Credit,											
Charge, Debit and Prepaid Programs	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	15.3%	17.7%	17.0%	14.3%	7.9%	5.8%	8.6%	6.2%	13.6%	14.0%	8.6%
Canada	1.9%	2.8%	2.7%	-1.2%	-3.1%	2.7%	-3.0%	-0.4%	0.0%	0.2%	-0.2%
Europe	17.4%	19.8%	18.7%	14.1%	9.8%	6.0%	4.1%	6.5%	7.9%	15.3%	6.1%
Latin America	10.5%	12.6%	12.0%	9.4%	5.8%	5.7%	3.4%	3.8%	5.3%	9.8%	4.5%
Worldwide less United States	15.5%	17.8%	17.1%	13.7%	8.4%	5.9%	6.3%	6.1%	10.6%	14.0%	7.2%
United States	2.2%	3.8%	1.8%	2.9%	-2.4%	-5.4%	-3.3%	-1.3%	0.7%	1.5%	-2.3%
Worldwide	13.6%	15.8%	14.9%	12.2%	7.0%	4.4%	5.1%	5.2%	9.4%	12.3%	6.1%
Mastercard Credit and Charge Programs											
Worldwide less United States	-4.5%	-1.4%	-0.3%	-1.1%	0.1%	-0.7%	-1.3%	-0.7%	-3.3%	-0.7%	-1.5%
United States	17.1%	20.6%	10.3%	6.0%	1.0%	-4.7%	-5.1%	-1.3%	-0.5%	8.8%	-2.9%
Worldwide	-3.7%	-0.5%	0.1%	-0.8%	0.2%	-0.9%	-1.5%	-0.7%	-3.2%	-0.2%	-1.6%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	17.7%	19.8%	18.8%	15.1%	9.1%	6.4%	7.0%	6.6%	11.7%	15.4%	8.0%
United States	1.8%	3.5%	1.6%	2.8%	-2.5%	-5.4%	-3.2%	-1.3%	0.7%	1.3%	-2.3%
Worldwide	15.3%	17.3%	16.2%	13.3%	7.6%	4.8%	5.6%	5.6%	10.4%	13.4%	6.6%

Cards (Millions)											
All Mastercard Credit, Charge, Debit and Prepaid Programs											
	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	546	563	580	594	615	638	659	687	707	615	707
Canada	48	48	45	46	48	48	49	50	53	48	53
Europe	396	403	414	421	432	442	452	468	478	432	478
Latin America	161	163	162	164	165	167	169	172	176	165	176
Worldwide less United States	1,152	1,177	1,201	1,225	1,260	1,295	1,330	1,377	1,413	1,260	1,413
United States	373	380	383	383	391	391	397	400	412	391	412
Worldwide	1,524	1,557	1,584	1,608	1,651	1,687	1,726	1,778	1,825	1,651	1,825
Mastercard Credit and Charge Programs											
Worldwide less United States	565	565	563	559	565	571	579	593	604	565	604
United States	190	192	195	196	200	202	205	208	212	200	212
Worldwide	755	757	758	755	766	773	784	800	816	766	816
Mastercard Debit and Prepaid Programs											
Worldwide less United States	587	612	638	666	695	724	751	785	810	695	810
United States	183	188	188	187	191	189	192	192	200	191	200
Worldwide	770	800	827	853	885	913	942	977	1,009	885	1,009

Cards Growth											
All Mastercard Credit, Charge, Debit and Prepaid Programs											
	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17	Q3'17	Q4'17	FY 2016	FY 2017
APMEA	15.3%	15.1%	13.7%	11.9%	12.6%	13.2%	13.7%	15.5%	14.9%	12.6%	14.9%
Canada	8.8%	8.3%	-1.4%	-0.5%	0.8%	0.8%	9.5%	10.0%	9.7%	0.8%	9.7%
Europe	6.5%	8.1%	9.7%	9.1%	8.9%	9.7%	9.3%	11.3%	10.8%	8.9%	10.8%
Latin America	6.3%	7.8%	4.0%	3.1%	2.4%	2.5%	4.1%	5.0%	6.5%	2.4%	6.5%
Worldwide less United States	10.6%	11.3%	10.3%	9.2%	9.4%	10.0%	10.7%	12.5%	12.2%	9.4%	12.2%
United States	6.1%	7.2%	6.6%	5.3%	4.9%	3.0%	3.5%	4.5%	5.3%	4.9%	5.3%
Worldwide	9.4%	10.3%	9.4%	8.2%	8.3%	8.3%	9.0%	10.6%	10.6%	8.3%	10.6%
Mastercard Credit and Charge Programs											
Worldwide less United States	0.5%	1.9%	0.7%	-0.6%	0.1%	1.1%	2.9%	6.1%	6.8%	0.1%	6.8%
United States	5.1%	5.5%	5.2%	5.4%	5.3%	5.4%	5.3%	5.8%	5.9%	5.3%	5.9%
Worldwide	1.6%	2.8%	1.8%	0.9%	1.4%	2.2%	3.5%	6.0%	6.6%	1.4%	6.6%
Mastercard Debit and Prepaid Programs											
Worldwide less United States	22.3%	21.7%	20.4%	18.9%	18.3%	18.2%	17.6%	17.8%	16.6%	18.3%	16.6%
United States	7.3%	8.9%	8.1%	5.3%	4.5%	0.6%	1.7%	3.1%	4.8%	4.5%	4.8%
Worldwide	18.3%	18.4%	17.3%	15.7%	15.0%	14.1%	14.0%	14.6%	14.0%	15.0%	14.0%

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 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. Debit programs include Mastercard-branded debit programs where the primary means of cardholder validation at the point of sale is for cardholders either to sign a sales receipt or enter a PIN. 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’s customers subsequent to the date of its release.

Article 8 of the EU Interchange Fee Regulation related to card payments that became effective June 9, 2016 states that a network can no longer charge fees on domestic EEA payment transactions that do not use its payment brand. Prior to that, Mastercard collected a de minimis assessment fee in a few countries, particularly France, on transactions with Mastercard co-badged cards if the brands of domestic networks (as opposed to Mastercard) were used. As a result, the non-Mastercard co-badged volume is no longer being included.

To aid in understanding the underlying trends in the business, the table above reflected adjusted growth rates for the impact of Article 8, by eliminating the related co-badged volumes.

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
2017Q4	(2)	17,739	16.7%
2017Q3		16,851	16.6%
2017Q2		16,014	17.0%
2017Q1	(2)	14,700	16.7%
2016Q4		15,200	17.2%
2016Q3		14,452	17.7%
2016Q2		13,688	14.0%
2016Q1	(1)	12,601	14.2%
2015Q4		12,971	12.2%
FY 2017	(3)	65,304	16.7%
FY 2016	(1)	55,941	15.8%

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 (Local)	Growth (USD)
2017Q4	(2)	16.6%	22.4%
2017Q3		15.1%	17.4%
2017Q2		13.6%	10.1%
2017Q1	(2)	12.8%	9.6%
2016Q4		12.9%	7.9%
2016Q3		12.4%	9.0%
2016Q2		10.3%	7.1%
2016Q1	(1)	11.9%	6.3%
2015Q4		12.3%	0.9%
FY 2017	(3)	14.6%	15.0%
FY 2016	(1)	11.9%	7.6%

Note:

- (1) There was one more switching day in this period vs. the same period the previous year
- (2) There was one less switching day in this period vs. the same period the previous year
- (3) There were two less switching days in this period vs. the same period the previous year

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 (Mil.)	Growth	Period	Cards (Mil.)	Growth	Period	Cards (Mil.)	Growth
2017Q4	1,825	10.6%	2017Q4	603	-7.6%	2017Q4	2,429	5.4%
2017Q3	1,778	10.6%	2017Q3	610	-7.5%	2017Q3	2,388	5.3%
2017Q2	1,726	9.0%	2017Q2	627	-6.2%	2017Q2	2,353	4.5%
2017Q1	1,687	8.3%	2017Q1	647	-3.4%	2017Q1	2,333	4.8%
2016Q4	1,651	8.3%	2016Q4	653	-3.5%	2016Q4	2,304	4.7%
2016Q3	1,608	8.2%	2016Q3	659	-3.3%	2016Q3	2,267	4.6%
2016Q2	1,584	9.4%	2016Q2	668	-1.9%	2016Q2	2,252	5.8%
2016Q1	1,557	10.3%	2016Q1	669	-1.6%	2016Q1	2,227	6.4%
2015Q4	1,524	9.4%	2015Q4	677	-1.1%	2015Q4	2,201	6.0%