Analysis of SIAM Data as submitted to the Hon'ble SC
March 24, 2017

SIAM data: Production of BS III vehicles from January 2016 till March 20, 2017

Commercial vehicles: A big problem

1. All vehicle manufacturers have **continued and even increased production of BS III vehicles in the last quarter** – January to current. This is explained by SIAM saying that sales are always high during months of February and March. However, this only confirms that there was no shift to BS IV.
2. Leyland in January 2016 produced 10,935 vehicles whereas in January 2017 it has produced 11,563 vehicles.
3. In this category, the total stocks that will remain as of March 20, 2017 is 96,724, which is substantially higher than the figure given to EPCA (75,000 would remain by April 1, 2017) by SIAM in the EPCA meeting dated February 3, 2017. This assumes that they will sell 20,000 vehicles in 10 days or have higher inventory than disclosed.
4. The companies will have 13.82% of the annual production in stock as of March 20, 2017 – which is largely because no effort was made to reduce inventories and shift production lines to BS IV.
5. Almost 15 per cent of their annual sales will be in stock as of March 20, 2017.
6. Ashok Leyland, Mahindra, Tata and Eicher-Volvo will have 95% of the BS-III inventory.
7. Their disinclination to reduce BS III inventories is clear from the fact that 2,16,181 units of BS III trucks and commercial vehicles were produced after the EPCA meeting in October 2016.

Table 1: Month-wise production trends of medium and heavy trucks and other commercial vehicles (Jan 2016 – Mar 20, 2017)

Segment:	**Medium, Heavy Trucks and Other Commercial Vehicles**							
Month of Production	**BS III production**							
	Ashok Leyland	**Mahindra and Mahindra Limited**	**SML Isuzu**	**Tata Motors**	**VEVC (Volvo-Eicher)**	**Force Motors**	**Piaggio**	**Total**
January 2016	10935	12001	729	27507	3983	437	443	**56035**
February 2016	12615	12675	744	28775	4310	402	377	**59898**
March 2016	12836	14191	985	31402	5188	340	408	**65350**
April 2016	8283	9825	839	23617	4431	178	381	**47554**
May 2016	10838	8905	983	20766	4440	151	325	**46408**
June 2016	6793	8711	818	23889	4164	205	359	**44939**
July 2016	7502	8283	852	20284	3758	238	287	**41204**
August 2016	7974	9099	592	18461	3041	280	211	**39658**
September 2016	7119	10069	737	17122	3356	276	297	**38976**
October 2016	9050	11568	699	18146	3331	253	385	**43432**
November 2016	11287	9567	908	21633	2366	258	161	**46180**
December 2016	9402	8708	1009	13734	1576	160	79	**34668**
January 2017	11563	9350	701	23559	3029	172	255	**48629**
February 2017	11528	11287	888	22915	3968	238	238	**51062**
March 2017 (Upto 20th)	9296	8888	517	13775	2886	75	205	**35642**
Total Production (Jan 2016 - Mar 2017)	**147021**	**153127**	**12001**	**325585**	**53827**	**3663**	**4411**	**699635**
Total Sales (Jan 2016 - Mar 2017)	**136042**	**146983**	**12470**	**310833**	**53526**	**3542**	**4437**	**667833**
BS III Inventory as on 20 Mar 2017:	**17449**	**20824**	**3304**	**45774**	**7287**	**763**	**1323**	**96724**
BS III Inventory as % of total production:	**11.87%**	**13.60%**	**27.53%**	**14.06%**	**13.54%**	**20.83%**	**29.99%**	**13.82%**
BS III Inventory as % of total sales:	**12.83%**	**14.17%**	**26.50%**	**14.73%**	**13.61%**	**21.54%**	**29.82%**	**14.48%**

Four wheelers

1. More or less no problem, as remaining inventories are small.
2. However, Tata, Mahendra and Force are the biggest companies in this category with 15,217 stock inventories as of March 20, 2017.
3. Mahendra and Force were also producing BS III vehicles till March and show little decline as compared to this Tata shows decline in production in this two months.

Table 2: Month-wise production trends of four wheelers of upto 3.5 tonnes (Jan 2016 – Mar 20, 2017)

Segment	Four wheelers (upto 3.5 tonne)						
	BS-III Production						
Month of Production	**General Motors**	**Hyundai**	**M&M**	**Tata**	**Toyota**	**Force**	**Total**
January 2016	1,052	299	5,411	4,614	1,666	1,790	**14,832**
February 2016	574	306	6,807	4,109	2,261	2,164	**16,221**
March 2016	1,306	364	6,950	3,158	356	2,659	**14,793**
April 2016	1,010	228	4,744	2,157	-	1,128	**9,267**
May 2016	945	208	4,093	858	-	1,239	**7,343**
June 2016	613	274	2,654	1,897	-	1,448	**6,886**
July 2016	750	248	2,428	2,486	-	1,623	**7,535**
August 2016	514	243	2,653	3,710	-	2,229	**9,349**
September 2016	712	343	3,640	3,884	-	2,339	**10,918**
October 2016	762	215	3,167	3,872	-	1,978	**9,994**
November 2016	929	182	1,921	2,115	-	1,438	**6,585**
December 2016	834	169	1,395	567	-	690	**3,655**
January 2017	304	131	2,841	1,430	-	1,333	**6,039**
February 2017	442	3	2,933	784	-	1,497	**5,659**
March 2017 (Upto 20 Mar, 2017)	-	-	2,989	305	-	1,090	**4,384**

Total Production (Jan 2016 – Mar 20, 2017)	**10,747**	**3,213**	**54,626**	**35,946**	**4,283**	**24,645**	**133,460**
BS-III Inventory as on 20 Mar 2017	**954**	**27**	**7,098**	**4,270**	**-**	**3,849**	**16,198**
BS-III Inventory as % of the total production (Jan 2016 – Mar 20, 2017)	**8.9**	**0.8**	**13.1**	**11.9**	**-**	**15.6**	**12.1**
BS-III Inventory as % of the total sales (Jan 2016 – Mar 20, 2017)	**9.0**	**0.7**	**11.6**	**12.2**	**-**	**16.3**	**11.6**

Three-wheelers

1. This sector shows complete disregard for the shift to BS IV. SIAM had submitted to EPCA in the meeting dated February 3, 2017 that 45,000 vehicles would remain as of March 31, 2017. This included figures for Bajaj which has the largest market share in the segment. Now the estimates are that 40,048 three-wheelers would remain in stock, which is 13% of the annual production.
2. The companies have also continued to produce BS III in the last quarter. There is reduction only in March.

Table 3: Month-wise production trends of three-wheelers (Jan 2016 – Mar 20, 2017)

Segment:	Three Wheelers					
	BS III production					
Month of Production	Atul Auto	Mahindra and Mahindra Limited	Piaggio Vehicles Private Limited	Scooters India	TVS Motor Company	Segment Total
January 2016	3919	4204	12730	450	1546	**22849**
February 2016	3513	3984	12498	404	1550	**21949**
March 2016	3285	4837	13777	1586	1051	**24536**
April 2016	1907	3788	12715	579	953	**19942**
May 2016	2690	3620	13494	740	1122	**21666**
June 2016	2976	3540	14194	208	743	**21661**
July 2016	3238	4766	13451	434	1517	**23406**
August 2016	3526	4974	14721	391	1727	**25339**
September 2016	5100	5903	14009	26	1198	**26236**
October 2016	5037	6120	16303	7	852	**28319**
November 2016	3627	4364	12910	443	989	**22333**
December 2016	3006	3530	7287	807	160	**14790**
January 2017	1868	3477	10391	842	652	**17230**
February 2017	2717	3060	4388	851	299	**11315**
March 2017 (Upto 20th)	2040	2547	250	1787	65	**6689**
Total Production (Jan 2016 - Mar 2017)	**48449**	**62714**	**173118**	**9555**	**14424**	**308260**
Total Sales (Jan 2016 - Mar 2017)	**48096**	**61332**	**181749**	**8547**	**15531**	**315255**
BS III Inventory as on 20th Mar 2017:	**6978**	**10740**	**18033**	**3293**	**1004**	**40048**
BS III Inventory as % of total production:	**14.40%**	**17.13%**	**10.42%**	**34.46%**	**6.96%**	**12.99%**
BS III Inventory as % of total sales:	**14.51%**	**17.51%**	**9.92%**	**38.53%**	**6.46%**	**12.70%**

Two-wheelers

1. Total stock (minus Bajaj) by March 20, 2017 is 6,71,305, which is roughly 4 per cent of total production from January 2016 to March 20, 2017.
2. Hero and Honda have 78 per cent of the total stocks of BS III as of March 20, 2017
3. **Honda seems to be the biggest problem – it has actually increased production in this last quarter – 56 per cent more BS III vehicles produced in January 2017 as compared to December 2016. They are also still continuing to produce in March.**
4. Hero has reduced production in February and stopped production in March. However, it has 4.39% of its production left unsold as of March 20, 2017.

Table 4: Month-wise production trends of two-wheelers (Jan 2016 – Mar 20, 2017)

Segment	Two-wheeler										
	BS-III Production										
Month of Production	**Harley-Davidson**	**Hero**	**Honda**	**Kawasaki**	**Yamaha**	**M&M**	**Royal Enfield**	**Suzuki**	**Triumph**	**TVS**	**Total**
Jan-16	629	532,078	363,805	40	50,077	11,061	45,087	24,761	49	165,956	**1,193,543**
Feb-16	327	534,791	353,019	80	52,238	8,580	49,225	22,648	50	180,818	**1,201,776**
Mar-16	373	586,354	382,966	40	58,255	6,753	49,345	24,334	30	199,483	**1,307,933**
Apr-16	455	587,957	400,460	80	60,787	4,458	43,768	27,341	24	188,197	**1,313,527**
May-16	586	591,471	444,181	40	57,271	5,382	49,917	22,578	5	210,125	**1,381,556**
Jun-16	729	580,094	433,887	65	61,230	3,047	53,067	19,508	25	214,680	**1,366,332**
Jul-16	60	580,358	464,227	15	56,737	2,676	54,833	15,029	6	211,668	**1,385,609**
Aug-16	102	566,664	483,595	72	72,354	3,915	56,831	30,624	5	240,018	**1,454,180**
Sep-16	96	555,758	524,845	54	85,285	2,487	57,094	32,995	6	241,149	**1,499,769**
Oct-16	12	557,140	451,920	54	69,236	3,796	54,277	7,943	11	262,284	**1,406,673**
Nov-16	-	466,341	328,826	20	54,663	2,359	58,312	6,172	2	229,987	**1,146,682**
Dec-16	-	298,839	191,534	-	45,017	2,401	53,884	3,725	-	148,519	**743,919**
Jan-17	-	276,557	341,568	80	16,458	2,183	56,408	4,621	-	144,065	**841,940**

Feb-17	-	63,026	230,022	-	120	1,582	41,482	2,593	-	22,049	**360,874**
Mar-17	-	-	12,656	-	35	584	600	526	-	146	**14,547**
Total Production (Jan 2016 – Mar 20, 2017)	**3,369**	**6,777,428**	**5,407,511**	**640**	**739,763**	**61,264**	**724,130**	**245,398**	**213**	**2,659,144**	**16,618,860**
BS-III Inventory as on 20 Mar 2017	**374**	**297,577**	**225,599**	**108**	**34,590**	**11,588**	**3,777**	**18,696**	**105**	**78,891**	**671,305**
BS-III Inventory as % of the total production (Jan 2016 – Mar 20, 2017)	**11.1**	**4.4**	**4.2**	**16.9**	**4.7**	**18.9**	**0.5**	**7.6**	**49.3**	**3.0**	**4**
BS-III Inventory as % of the total sales (Jan 2016 – Mar 20, 2017)	**8.5**	**4.1**	**4.3**	**12.9**	**4.5**	**13.0**	**0.5**	**6.5**	**19.2**	**2.9**	**3.90**

Summary Table 5: BS III Stock by vehicle category

Vehicle Category	BS III Stock as on March 20, 2017
Commercial Vehicles	96724
Four Wheelers	16198
Three Wheelers	40048
Two Wheelers	671305
Total	824275

Summary Table 6: BS III Stock by manufacturer

Manufacturer	BS III Stock as on March 20, 2016		Production in 2016 (Jan-Dec)	Production in 2017 (Jan-Mar 20th)	% Produced in Last Quarter (Jan-Mar 20, 2017)
Total Commercial Vehicles	**96724**		**564302**	**135333**	**19.34%**
		(% of total BS-III inventory category wise)			
Tata Motors	**45774**	47.32%	265336	60249	18.50%
Mahindra and Mahindra	**20824**	21.53%	123602	29525	19.28%
Ashok Leyland	**17449**	18.04%	114634	32387	22.03%
VEVC (Volvo-Eicher)	**7287**	7.53%	43944	9883	18.36%
SML Isuzu	**3304**	3.42%	9895	2106	17.55%
Piaggio	**1323**	1.37%	3713	698	15.82%
Force Motors	**763**	0.79%	3178	485	13.24%

Total Four Wheelers	**16198**		**117378**	**16082**	**6.41%**
Mahindra and Mahindra	**7098**	43.82%	45863	8763	8.72%
Tata Motors	**4270**	26.36%	33427	2519	3.63%
Force Motors	**3849**	23.76%	20725	3920	8.64%
General Motors	**954**	5.89%	10001	746	3.60%
Hyundai Motors	**27**	0.17%	3079	134	2.13%
Toyota	**0**	0.00%	4283	0	0
Total Three Wheelers	**40048**		**273026**	**35234**	**11.43%**
Piaggio	**18033**	45.03%	158089	15029	8.68%
Mahindra and Mahindra	**10740**	26.82%	53630	9084	14.48%
Atul Auto	**6978**	17.42%	41824	6625	13.67%
Scooters India	**3293**	8.22%	6075	3480	36.42%
TVS Motors	**1004**	2.51%	13408	1016	7.04%
Total Two Wheelers	**671305**		**15401499**	**1217361**	**3.80%**
Hero Motocorp	**297577**	44.33%	6437845	339583	2.57%
Honda 2 Wheelers	**225599**	33.61%	4823265	584246	5.71%
TVS Motors	**78891**	11.75%	2492884	166260	3.23%
Yamaha	**34590**	5.15%	723150	16613	1.14%
Suzuki 2 wheelers	**18696**	2.79%	237658	7740	1.60%
Mahindra and Mahindra	**11588**	1.73%	56915	4349	3.68%
Royal Enfield	**3777**	0.56%	625640	98490	7.30%
Harley Davidson	**374**	0.06%	3369	0	0
Kawasaki	**108**	0.02%	560	80	6.67%
Triumph	**105**	0.02%	213	0	0