2018

	2017	2018	2019	2020
	0.38	2.76	3.85	2.58
	0.89	6.26	6.27	5.80
	6.77	7.03	7.17	7.11
	-0.73	-2.38	1.62	-0.72
	12.29	21.60	24.89	23.72
	3.25	12.05	14.65	13.32
	0.89	8.63	9.43	8.84
	9.03	9.55	10.24	10.40
	4.73	7.55	14.95	2.94
	0.66	0.50	0.66	0.00
	-0.98			

OEM

- 2018
  MMRO DMH B.V.
  PBH

-

-

-

-
  EHM

  EHM

-
  MMRO

➢
  AA-

  AAA

0

LPR

2

A.

2015

2018

2016-2018 2015-2017

8868.50 9545.97 10236.50

10.10% 7.64% 7.23%

2015

2018~2020

2018 11069.7

100% 8.14% 0.90 2019

11899 2018 7.5%

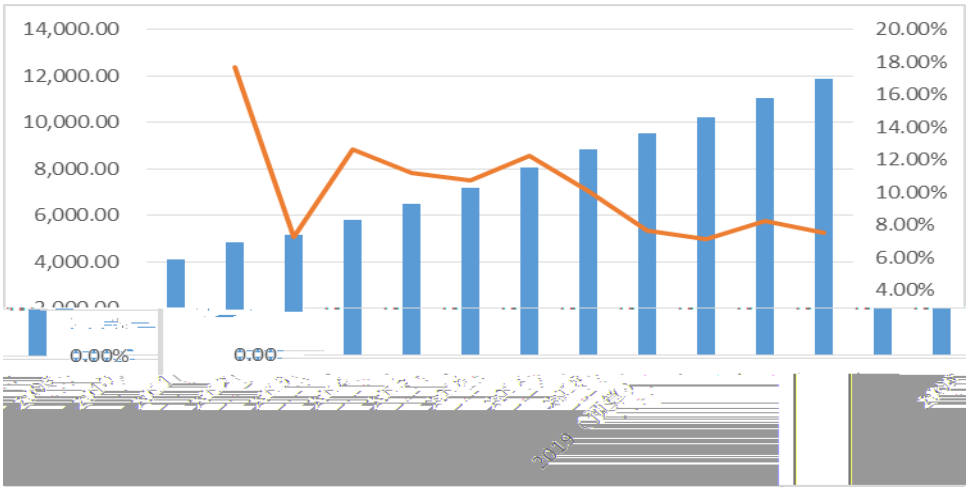
1

GDP

GDP 1.5% (4.7%)

(2.5%) (2.8%) (2.5%)

2. 2008



2 **HUMS** 3 **ATE**[4]

HUMS 2017

2016

13764

1 30%

50% 70% 90% 80%

2

2955

2016 5751

809

HUMS

[5] HUMS

ATE

ATE

ATE ATE

ATE

HUMS

ATE

Andawell

HUMS ATE

B.

2015-2016

[5]

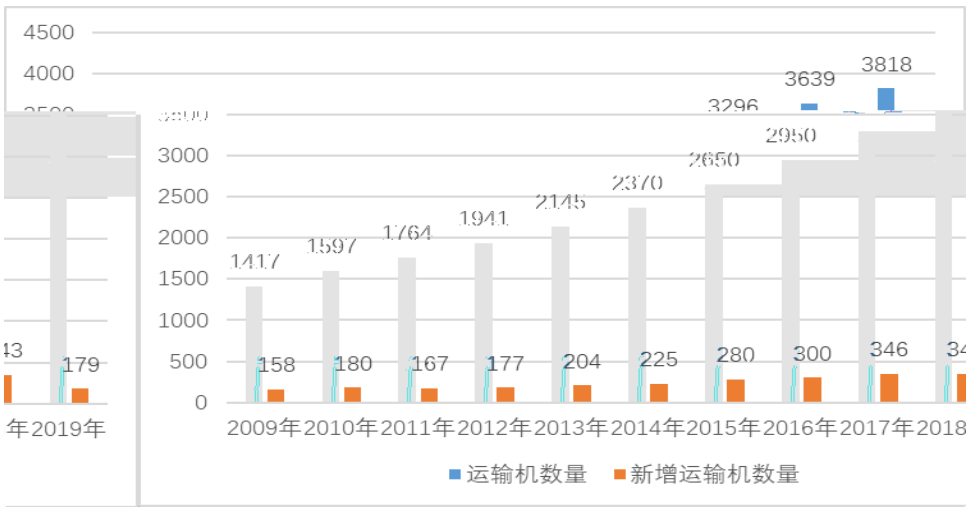
2017-2020

5

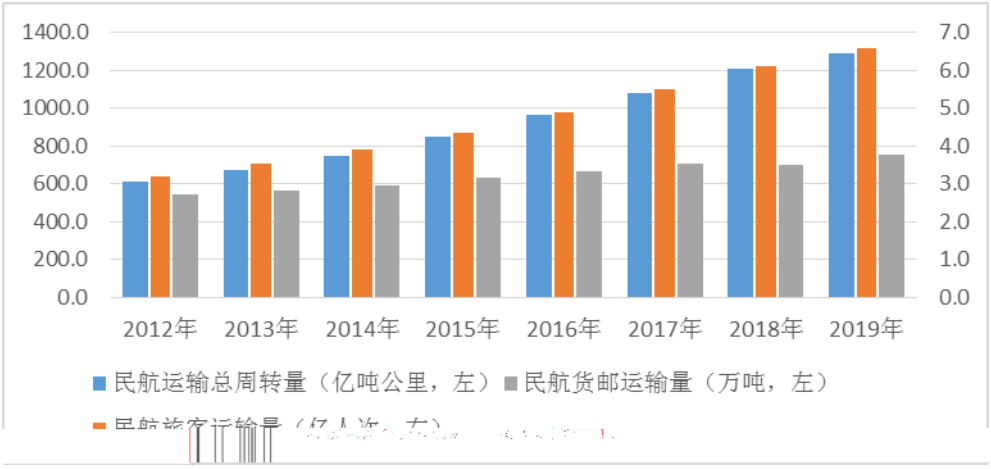
40% 20% 20% 20%

2019 3818
179 2019 1293.2
6.60 753.2 7.2%
7.9% 2.0%
2010 23.2 2016 68
2017 10 2018-2027
1167 4.80%

3. 2009



4. 2012



3-5

5

2014-2017

80 82 80 110 2012

9.0 2015 5.5 2016 4.7

2015-2016

6

2012-2015 2017-2020

OEM

Original Equipment Manufacturer OEM

OEM

OEM

OEM

80%

6.

OEM	Rockwell Collins -	
	Honeywell(-)	
	Parker Hannifin -	
	AMECO	1989
	GAMECO	1989
		2006

		2000 CAAC FAA EASA JMM
	002023.SZ	1992 CAAC FAA JMM
	300719.SZ	2001
		1994 ATE

OEM

SB

C.

2020

2020

3

2020

GDP 6.8% 4.8%

2020 165.2

7407.8 46.6% 53.9% 9341

42.09% 398.2 336.2

200

2020 4 30

84373 943

3131014 1971220
1283587 693553

MMRO

2.

MMRO

MMRO

MMRO

ATE
2017-2019 2020 1-3 4.73
7.55 14.95 2.94 2018 MMRO
2018 5 MMRO 2018
5-12 2019 3.56 8.51 MMRO
2018-2019 MMRO
3.99 6.44 0.75 2.45
2018
0.67 2019

1.74 2019
42.75% 32.60% 24.27% 18.70% 2018
MMRO
2018 5-12 2019 2020 MMRO
18.70% 13.85% 7.83%
MMRO

MMRO 42.75%
47.72% 38.05% 45.97% 40% 2019

2019 MMRO

2.11 0.98

14.11% 27.08% 46.58% 45%

2019 3.28

1.32 21.94% 36.47%

40% 2019 MMRO

8.51 1.18

56.94% 32.49% 13.85%

2017-2019

2020 0.38 0.32 0.97 0.04

16.64% 8.45% 7.29% 21.78%

7.

/	/	
	/	

MMRO

	43.31	**45.88**	**40.36**	**44.18**	**55.95**
	77.71	**87.82**	**88.03**	**91.28**	**86.24**
	42.75	**32.60**	**24.27**	**18.70**	**25.73**

A.

20

8

10 40

30 2500 30000

9.

	B737 B747 B747NG B757 B767 B777 A300 A310 A319 A320 A330 A340 ERJ CRJ 20	
	8 26 Z8 Y7 Y8 76 AS332 20	

2019

0.03

0.83 0.08

2016

+

2016

/

90

2017-2019 2020 1-3

MMRO 2.07 2.01

2.11 0.42

2020 1-3 0.12

MMRO 48.49% 47.72% 46.58%

48.38% 45% OEM

2019 OEM ECA CSAFE

B.

2017-2019 2020 1-3

2.21 1.54 3.28 0.36

2018

2019

43.31% 45.88% 40.36% 44.18%

ATE

ATE A

B TPS C

2017-2019 5 9

26.96% 11.73% 21.24%

5

2017-2019 5 [10] 59.83% 31.64%

32.26% 2018 MMRO

2015

C. MMRO

2018 4

Magnetic MRO AS E E J G 100%

9

10

4344.42 MMRO MRO
MRO
2002
5
MMRO
90%

A320 B737 CL/NG ATR CRJ700/900NG ERJ170/190 SAAB340
CAAC
EASA FAA MMRO
4 1
5 MMRO MAC
MMRO
Heston Services Ltd Air Baltic Corporation SIA West Coast Aviation Ltd. Air Peace Limited Regional Jet OU Medview Airline Limited Avioserv San Diego, Inc.
40 2019 MMRO
4.98 1.31 2017-2019 2020
1-3

MRO EASA PART-145 FAA

4 6

MMRO

DMH B.V.2017-2019 2020

505.5 856.72 1130.91 291.68

1.70 92.99 -6.58 -27.40

2019

2020

2019 6 MMRO

MMRO

MMRO 5055.10 4344.42

16.36% SAPPHIRE

INVESTMENT HOLDING LIMITED

MMRO 895 MMRO 15.04%

MMRO 100% 84.96%

2020 2 14 109.76

MMRO 98.16%

10. MMRO %

	2017	2018	2019	2020	2019
	7.09	6.89	8.51	2.10	1.49
	13.09	15.48	13.85	7.83	17.17
	0.31	0.40	0.22	0.03	0.05
	-0.26	-0.15	0.80	-0.08	0.41

2018 MMRO DMH B.V.

442.20% 1044.52% 3.47

MMRO

PBH

2019 0.08

MMRO

D.

2019 296

39

8

OEM

Kidde Aerospace KANNAD OEM

CCAR-145

2017-2019 4243.02 7289.14

9485.48 1202.01 2028.88 2044.81

8.96% 9.66% 6.35%

PMA

2015 4 3.89

3.35

0.57 1.13 0.54 0.51

2018 2.79

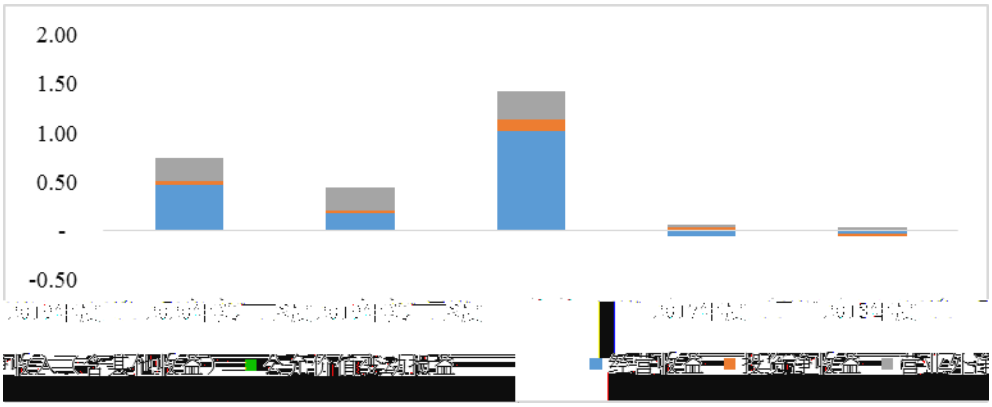
0.56 3

11. 2019

	0.57	0.46	0.81	0.20	5.09
	1.13	0.82	0.75	0.21	5.99
	0.54	0.45	-	-	-
	0.51	0.47	0.67	0.08	5.91
	2.75	**2.20**	**2.23**	**0.49**	-

2

12.



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12

MMRO

2017-2019 2020 1-3 2.02

2.46 3.63 0.55

13.

	2017	2018	2019	2020	2019
	2.02	2.46	3.63	0.55	0.60
	1.35	1.95	2.94	0.60	0.59
	0.18	0.20	0.30	0.04	0.05
	1.16	1.83	2.33	0.51	0.53
	0.01	-0.08	0.31	0.05	0.01
%	28.43	25.90	19.66	20.41	25.29
%	0.18	-1.02	2.05	1.73	0.32
	0.17	0.28	0.39	0.01	0.03
	0.47	0.18	0.24	-0.07	-0.03
	0.00	0.20	0.40	-	-
	-	-	-	-	-

2017-2019 2020 1-3 1.35 1.95

2.94 0.60 28.43% 25.90% 19.66%

20.41%

12 2017 16 2017

5000 2450 49%

2.5

1.76 2.47

1.76 0.71

EHM EHM

1.26 0.88 2

15.35%

8.38

HUMS

Health and Usage Monitoring System HUMS

0.96

0.88 3

EHM

EHM

EHM

[13] 2020 3

33.28% 2018 36.75% 3.47%

[13]

2.94%

0.91% 37.13%

0% 0.31% 2.49% 1.82% 0%

0% 4.62%

12.44%

2017-2019 0.002 0.03

0.92

0.009 0.11 0.21 2019

0.62

MPTL 0.27

2019

MPTL 0.42 MMRO MPTL

15. 2014

2014.6.14				2014 8 13
2014.7.31				
2015.7.21				
2015.9.30				
2016.1.26				
2016.6.30				
2017.2.17				
2017.6.23				
2017.8.18				

2017.12.12				
2018.1.30				

2018.11.27

1.

2019

2020

33 76 2006 2 15

42

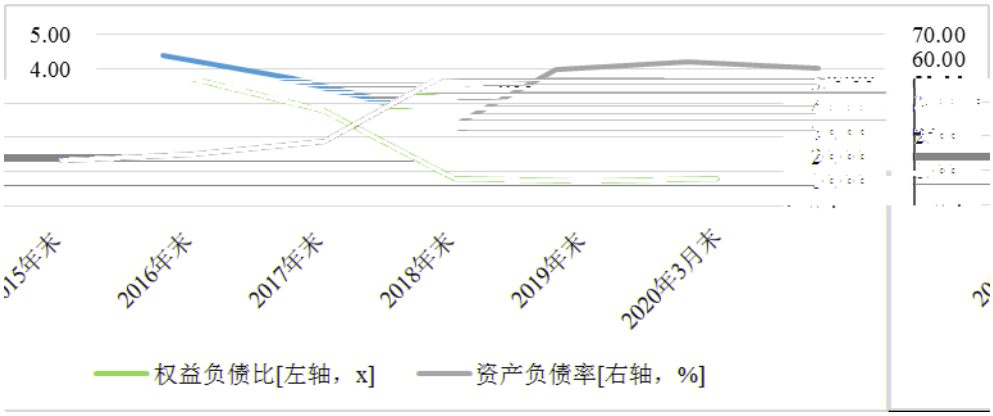
( )

2019 5 9

2.

1

17.



2017-2019 2020 3 3.25 12.05

14.65 13.32

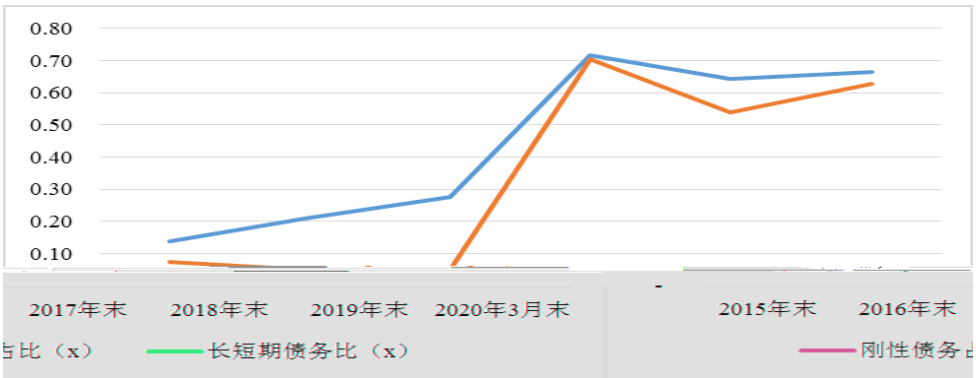
MMRO

9.03 9.55

10.24 10.40

2

18.



	2015	2016	2017	2018	2019	2020 3
	0.26	0.50	0.89	8.63	9.43	8.84
	0.83	1.05	1.26	1.89	2.73	2.37
	0.11	0.12	0.03	0.15	0.91	0.81
	0.10	0.07	0.21	0.55	0.55	0.47
%	13.85	21.14	27.48	71.62	64.34	66.37
%	44.48	44.46	38.61	15.69	18.62	17.77
%	5.79	5.07	0.88	1.28	6.18	6.08
%	5.39	2.79	6.31	4.59	3.78	3.52

2017-2019 2020 3
95.35% 58.61% 64.92% 61.41% 2018
MMRO

2020 3 66.37% 17.77% 2017-2019
2020 3 0.89 8.63 9.43
8.84 MMRO 2018
1.26
1.89 2.73 2.37

3

19.

	2015	2016	2017	2018	2019	2020 3
	0.26	**0.50**	**0.89**	**3.77**	**4.40**	**3.81**
	0.05	0.42	0.68	3.21	3.73	3.16
	0.21	0.08	0.21	0.38	0.41	0.39
	-	-	-	0.18	0.26	0.26

	2015	2016	2017	2018	2019	2020 3
	-	**-**	**-**	**4.86**	**5.02**	**5.03**
	-	-	-	3.46	3.22	3.20
	-	-	-	1.38	1.80	1.82
	-	-	-	0.01	0.01	0.01
%	**3.18**	**2.33**	**0.46**	**4.16**	**4.69**	**4.58**

2020 3 8.84
43.10% 6.62
1.82 1.20 18 S
MMRO 2018 12 2020 3
3 800 1500
8% MMRO

20. 2020 3

	36675.26	-	-	950	31625.26	4.35-6.5%
	-	2599.95	-	-	2599.95	3-8%
	-	31994.44	-	-	31994.44	
	36675.26	**34594.39**	**-**	**950.00**	**66219.65**	**-**

2017-2019 2020
0.46% 4.16% 4.69% 4.58%

MMRO

3.

1

22.

	2015	2016	2017	2018	2019	2020
	383.50	439.37	513.68	415.98	250.16	-
%	110.94	95.23	84.52	96.00	104.93	99.85
	0.18	0.38	-0.56	0.62	3.12	-0.39
	-0.10	-0.47	-0.42	-1.02	-1.17	0.12
	0.07	-0.08	-0.98	-0.40	1.95	-0.52
EBITDA	1.08	0.91	1.00	1.01	1.38	-
EBITDA/	1.08	2.40	1.43	0.21	0.15	-
EBITDA/	33.97	102.91	314.15	5.11	3.48	-

2

23.

	2015	2016	2017	2018	2019	2020
	-0.29	-0.09	-0.04	-3.75	-0.42	-
	-0.37	-0.72	-0.05	-0.70	-0.48	-0.41
	-0.66	-0.81	-0.09	-4.45	-0.90	-0.41

2017-2019 2020 1-3

-0.09 -4.45 -0.90 -0.41

	2015	2016	2017	2018	2019	2020 3
	0.42	0.13	0.61	1.20	1.09	1.13
	0.41	0.43	1.05	1.19	1.55	1.52
	0.00	0.00	0.00	2.76	2.98	3.06

MMRO 2017-2019 2020 3 12.29 21.60 24.89 23.72 59.79% 56.20% 58.68% 55.75%

2019 14.61 31.67% 35.06% 29.63% 2020 3 3.14 3.06 1.57 2017-2019 2020 3 3.48 4.94 5.12 4.94 2018 MMRO MMRO 2018 1170.70

2020

2019

2.73 1352.67 1 1-2 2-3 63.81% 19.85% 12.54% 1 0.64 2.35 3.57 4.33 4.44 ATE MMRO 2018 MMRO 739.20 2020 3 ATE 2.28 0.98 1.65

1 1-2 2-3 3 1.10 0.38 0.29 0.51 48.24% 16.56% 12.71% 22.50% 0.45

3

0.98 1-2 2-3 3 0.13 0.11 0.03 0.27

2019 10.50

30.85% 10.64%

15.09% 28.93% 2017-2019 2020 3

2.72 3.04 3.17 3.23 2018

MMRO

2019 1.76

1.22 0.61 1.20

1.09 1.13

2019

MPTL

0.29 0.45 0.15

0.21 1.05 1.19

1.55 1.52 2017

2018 MMRO

2019

0.26 0.61 -0.02 2018-2019 2020 3

2.76 2.98 3.06 2018 MMRO

2019 3 MMRO DMH B.V.

2020 3 2.93

1.57 1.19 0.10

MMRO

1.20

12.35% 28.17%

5. /

27.

	2015	2016	2017	2018	2019	2020 3
%	347.33	288.42	236.96	171.88	153.58	161.64
%	247.33	199.95	155.77	117.78	104.83	102.81
%	117.22	82.47	29.95	42.89	48.63	38.34

2019 2020 3 153.58% 161.64%
104.83% 102.81% 48.63% 38.81%
2020 9
140.37% 81.54% 19.15%

6.

7. /

2020 3 17.26
7.11 58.83%

ATE 2017-2019
2020 1-3 2.07 1.47 3.90 0.36
0.84 0.21 0.12 -0.08

2020 3
5.87 2.16 3.71

28.

					/
	5.87	5.87	2.16	4.35-6.50%	
	-	-	-	-	-
	1.87	1.87	0.88	4.785-5.44%	
%	31.86	31.86	40.74	-	-

2020 3 31

2009 2

20.00

2019 9

60.60

2018 84.25

71.65 64.91

76.70 160.06 2018

4.04 1.59

2019 9 86.13

71.90 65.06

80.83 164.05

2019 2.94 1.21

[2019]020471 2020 12

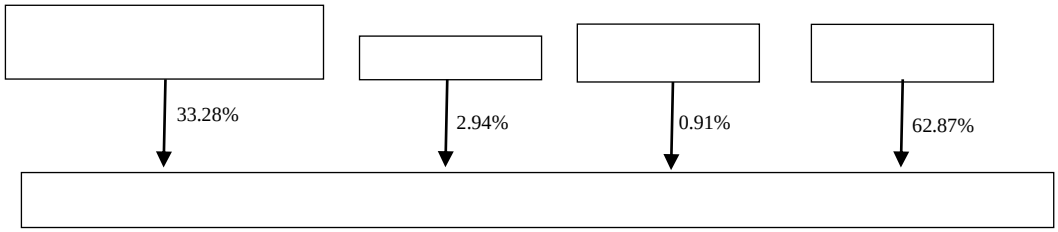
28 AAA

MMRO

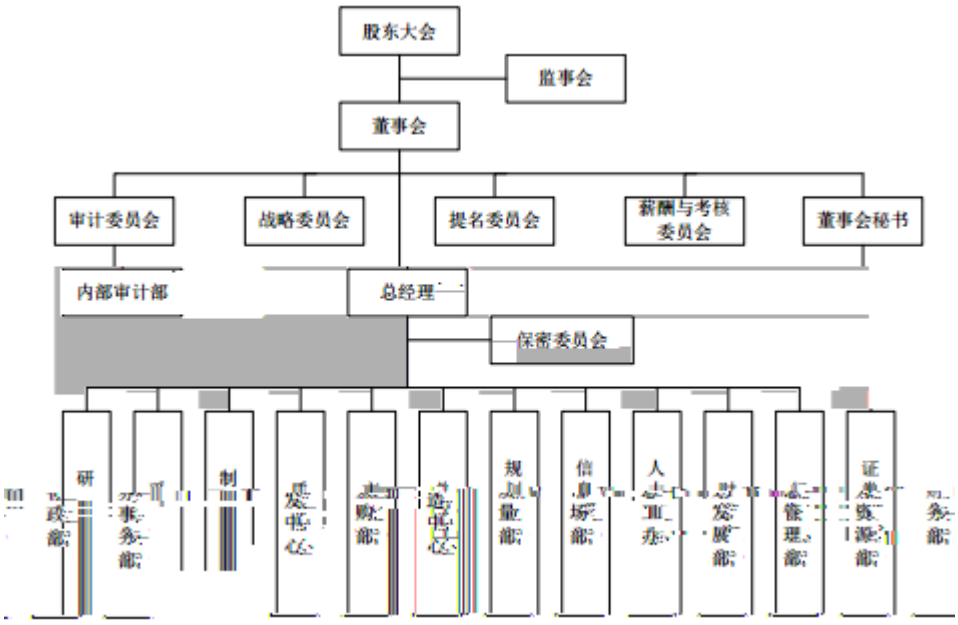
MMRO

MMRO

2019


33.28%
2.94%
0.91%
62.87%

2020 3


股东大会
监事会
董事会
审计委员会
战略委员会
提名委员会
薪酬与考核委员会
董事会秘书
内部审计部
总经理
保密委员会

2019 3

			%		2019						
										EBITDA	
					5.70	7.17	3.90	0.12	1.62	0.47	
Magnetic	MMRO		100		0.17	0.17	1.09	0.03	0.10	0.06	
			100		-	3.69	1.65	0.28	0.40	0.46	
			100		-	1.44	0.68	0.08	0.11	0.13	

2019

	2017	2018	2019	2020
[ ]	12.29	21.60	24.89	23.72
[ ]	0.88	3.03	4.54	3.06
[ ]	0.89	8.63	9.43	8.84
[ ]	9.03	9.55	10.24	10.40
[ ]	4.73	7.55	14.95	2.94
[ ]	0.66	0.50	0.66	0.00
EBITDA[ ]	1.00	1.01	1.38	
[ ]	-0.98	-0.40	1.95	-0.52
[ ]	-0.09	-4.45	-0.90	-0.41
[%]	26.46	55.79	58.85	56.16
[%]	1,011.24	110.67	108.67	117.61
[%]	236.96	171.88	153.58	161.64
[%]	29.95	42.89	48.63	38.34
[ ]	234.62	3.23	2.65	
[%]				
[ ]	513.68	415.98	250.16	
[%]	42.75	32.60	24.27	18.70
[%]	15.43	5.53	4.38	-0.12
[%]	6.36	3.78	4.52	
[%]	7.45	5.34	6.69	
*[%]	7.51	5.42	6.85	
[%]	84.52	96.00	104.93	99.85
[%]	-36.53	-7.82	23.55	
[%]	-37.94	-63.37	7.87	
EBITDA/ [ ]	314.15	5.11	3.48	
EBITDA/ [ ]	1.43	0.21	0.15	

2017 2019 2020

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C	

AAA CCC -

AAA	
AA	
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BB	
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CCC	
CC	
C	

AAA CCC -

- 2014 6
- 2018 2018 4
- MX-GS015 2019.8 2019 8