

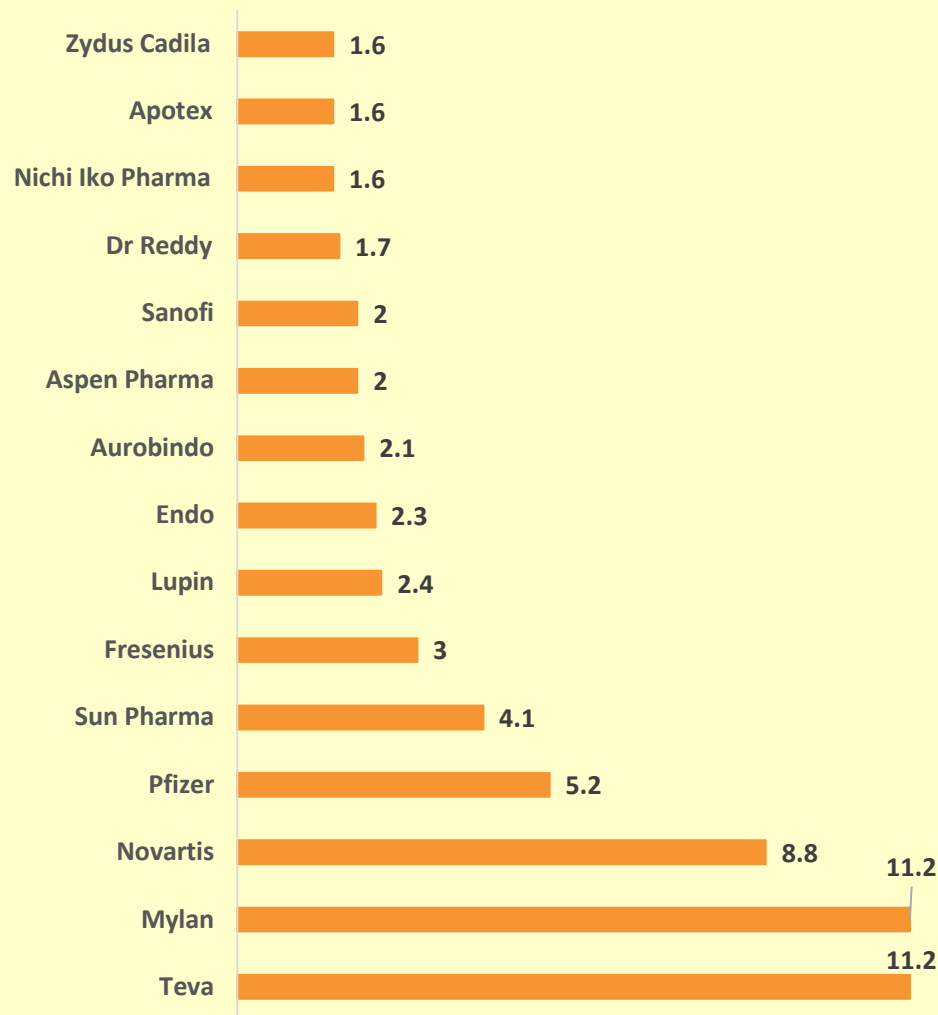
Sector Presentation: Pharmaceuticals

Ajay Parmar

- **The Indian Pharmaceutical industry is expected to grow at a CAGR of 11% and reach to US \$55bn by 2020. The Indian market caters to its fairly large domestic needs as well as servicing global markets for generics including the developed markets like USA.**
- **The Global Pharmaceutical market is US\$1016bn and is expected to rise to US \$1413bn in 2022 - a growth of 8.6% CAGR.**
- **India supplies 40% of US generic market and caters to 25% of the UK medicine requirements.**
- **35% of total ANDAs have been filed from India**
- **This Indian Pharmaceutical companies have remained competitive in the global market due to an intense work done by the Indian Pharmaceutical companies by setting world class manufacturing facilities, top level R&D, improving quality standards, hiring India's large pool of Pharmaceutical professionals and adopting latest advanced analytical tools**
- **There has been a lot of headwinds in terms of issues in regulatory compliances, pricing pressure, changes in market dynamics. Despite these factors, the Indian companies have maintained a robust growth rate.**

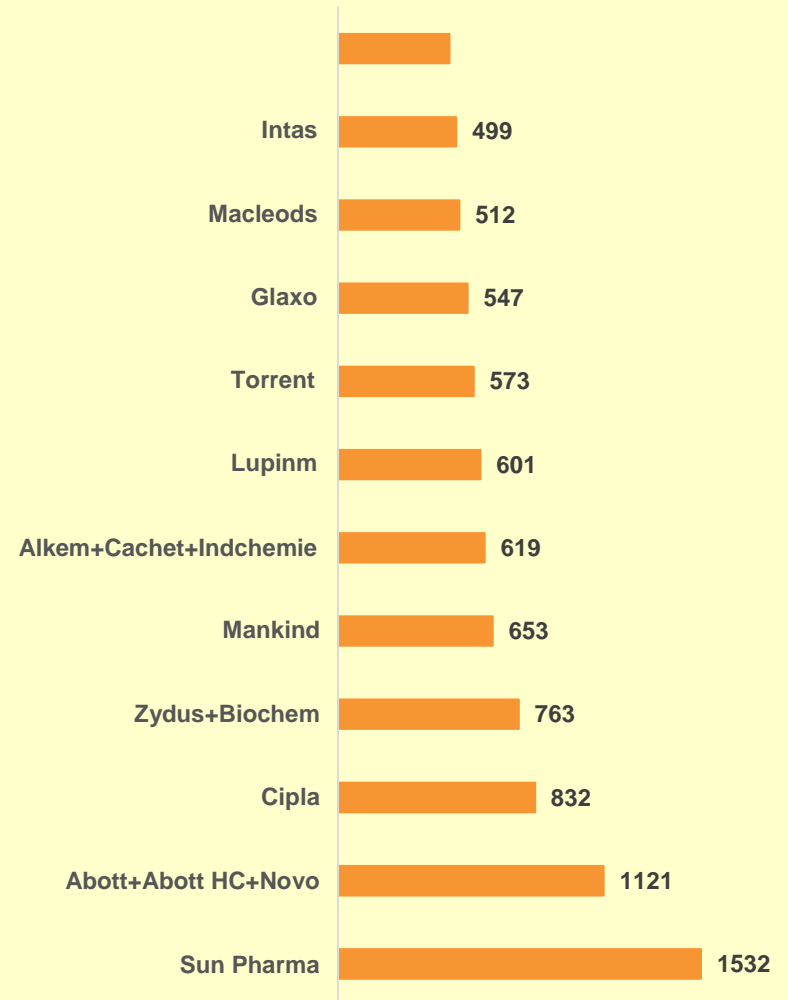
Top Global & Indian Pharmaceutical Companies

World's Largest Specialty Generics Pharmaceutical Companies in Sales(US \$ Bn)



Source: *Evaluate Pharma Estimates*

Top Pharmaceutical Companies in India (Branded Generics Sales (US \$Mn))

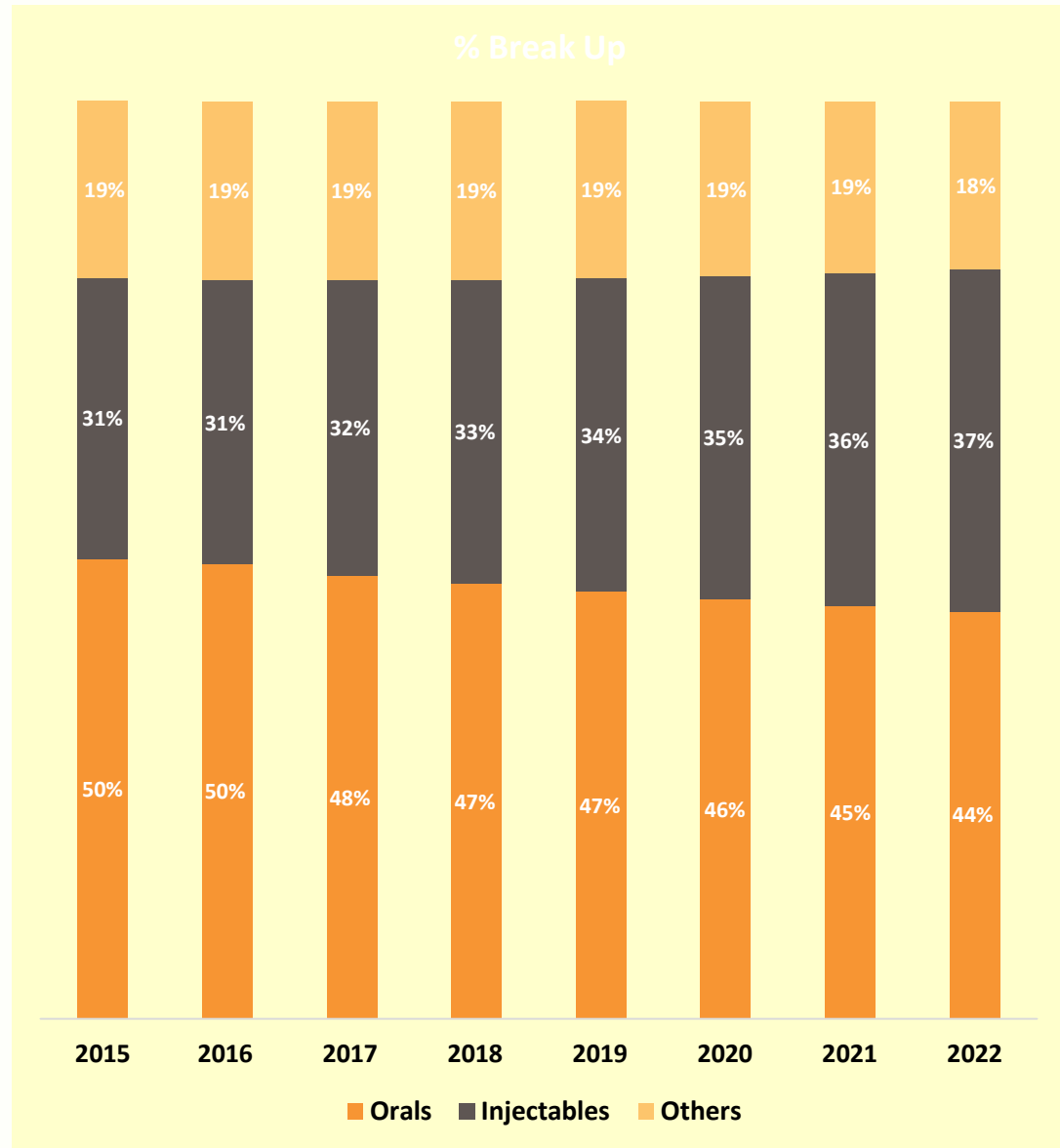


Source: *AIOCD AWACS MAT*

Global Pharmaceutical Market

Global Pharma Market Trend USD Bn

Year	Orals	Injectable	Others	Total
CY15	459	280	177	916
CY16	487	306	191	984
CY17	491	328	198	1016
CY18	512	359	210	1080
CY19E	539	396	223	1158
CY20E	564	434	235	1232
CY21E	593	479	246	1318
CY22E	626	529	258	1413

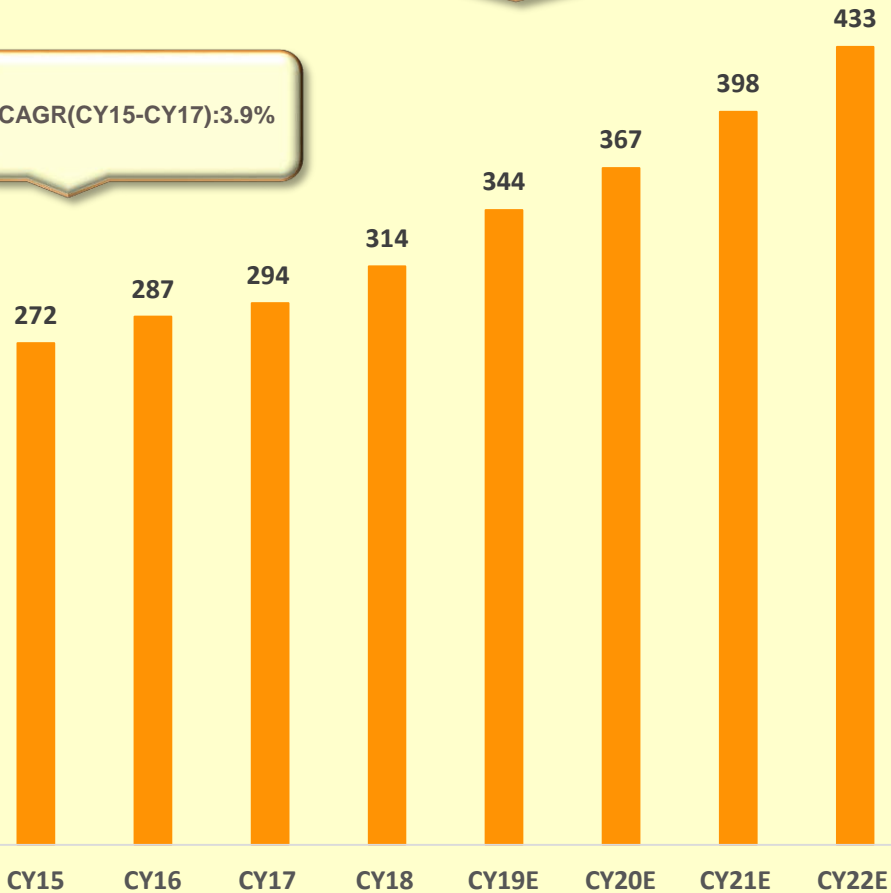


Global Pharmaceutical Trend (USD bn)

Generics

CAGR(CY18-CY22E):8.4%

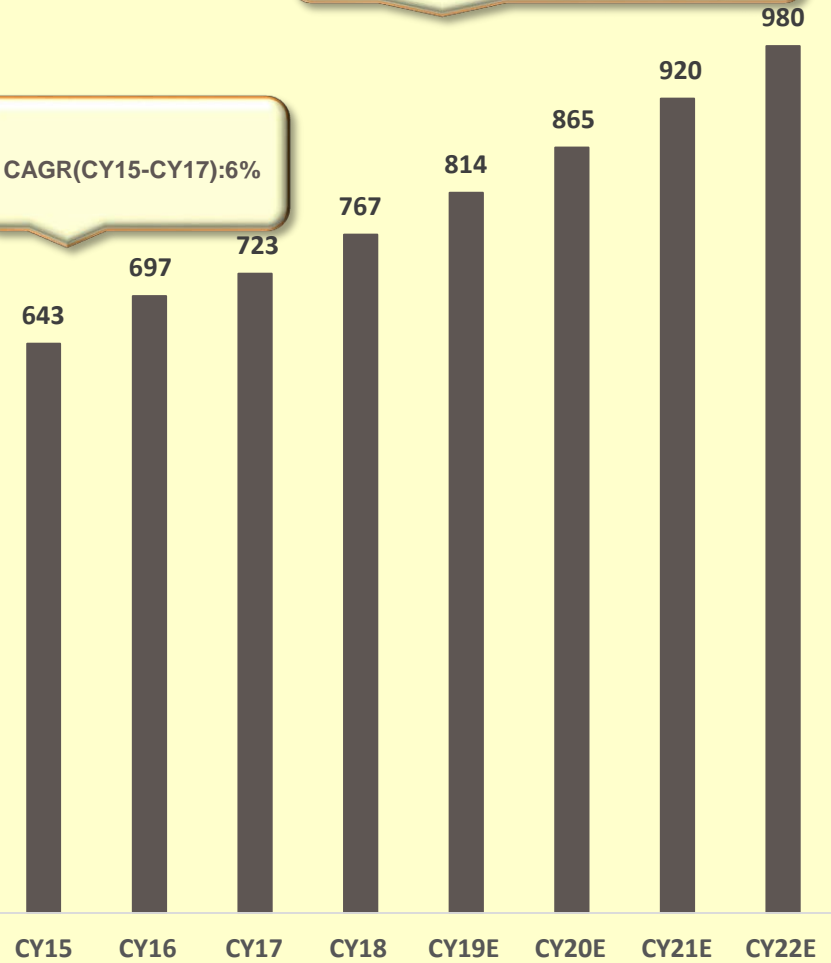
CAGR(CY15-CY17):3.9%



Innovator

CAGR(CY18-CY22E):6.3%

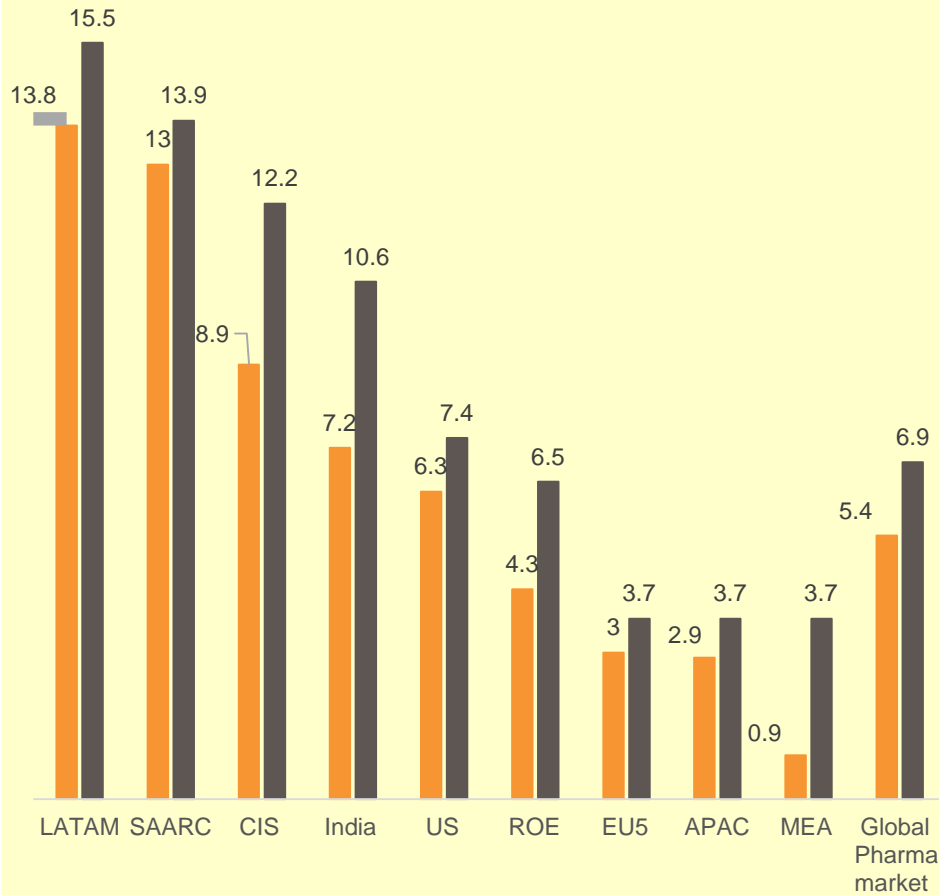
CAGR(CY15-CY17):6%



Region Wise Pharmaceutical Growth

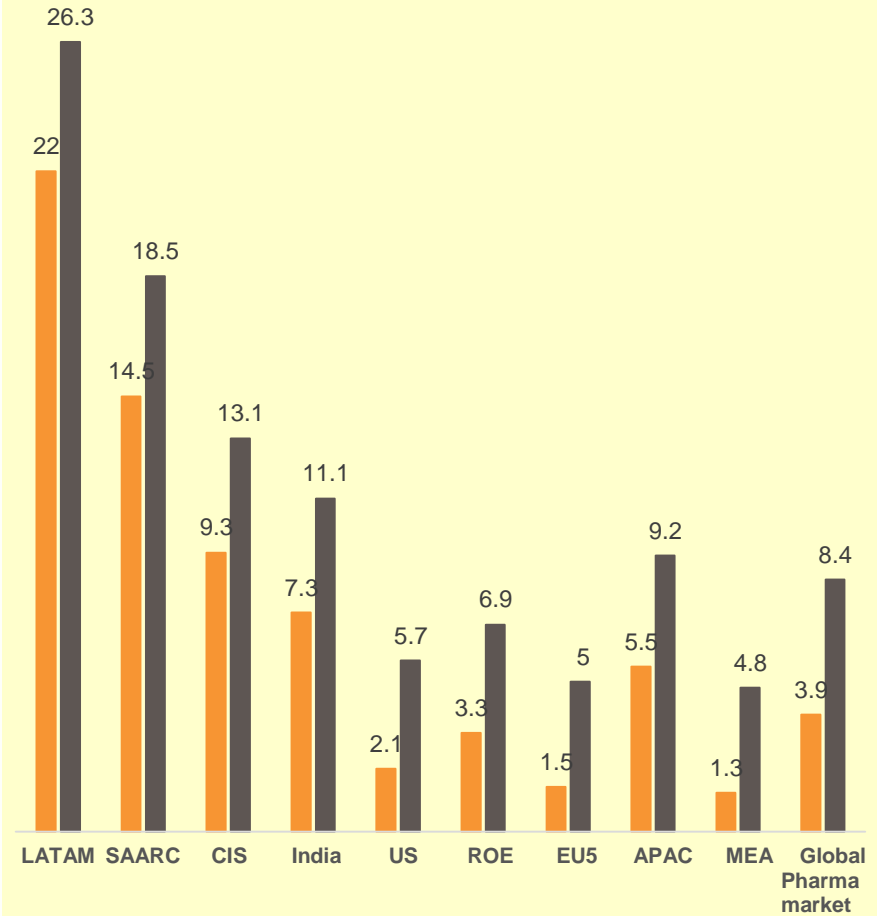
Global Pharma Market CAGR Growth

■ CAGR 2015-17 ■ CAGR 2018-22

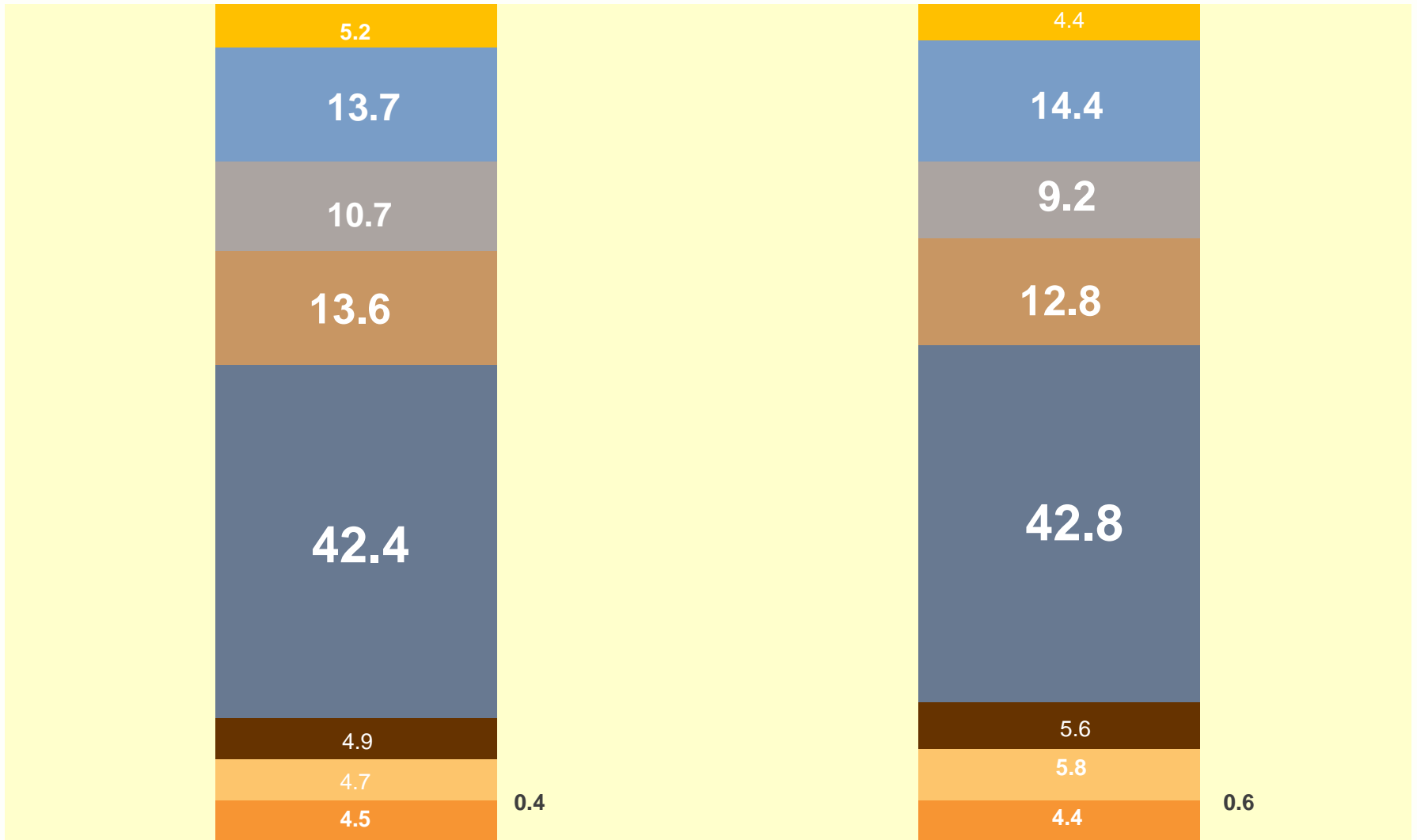


Global Generic Market % CAGR

■ CAGR 2015-17 ■ CAGR 2018-22



Global Generic Market share Regionwise %

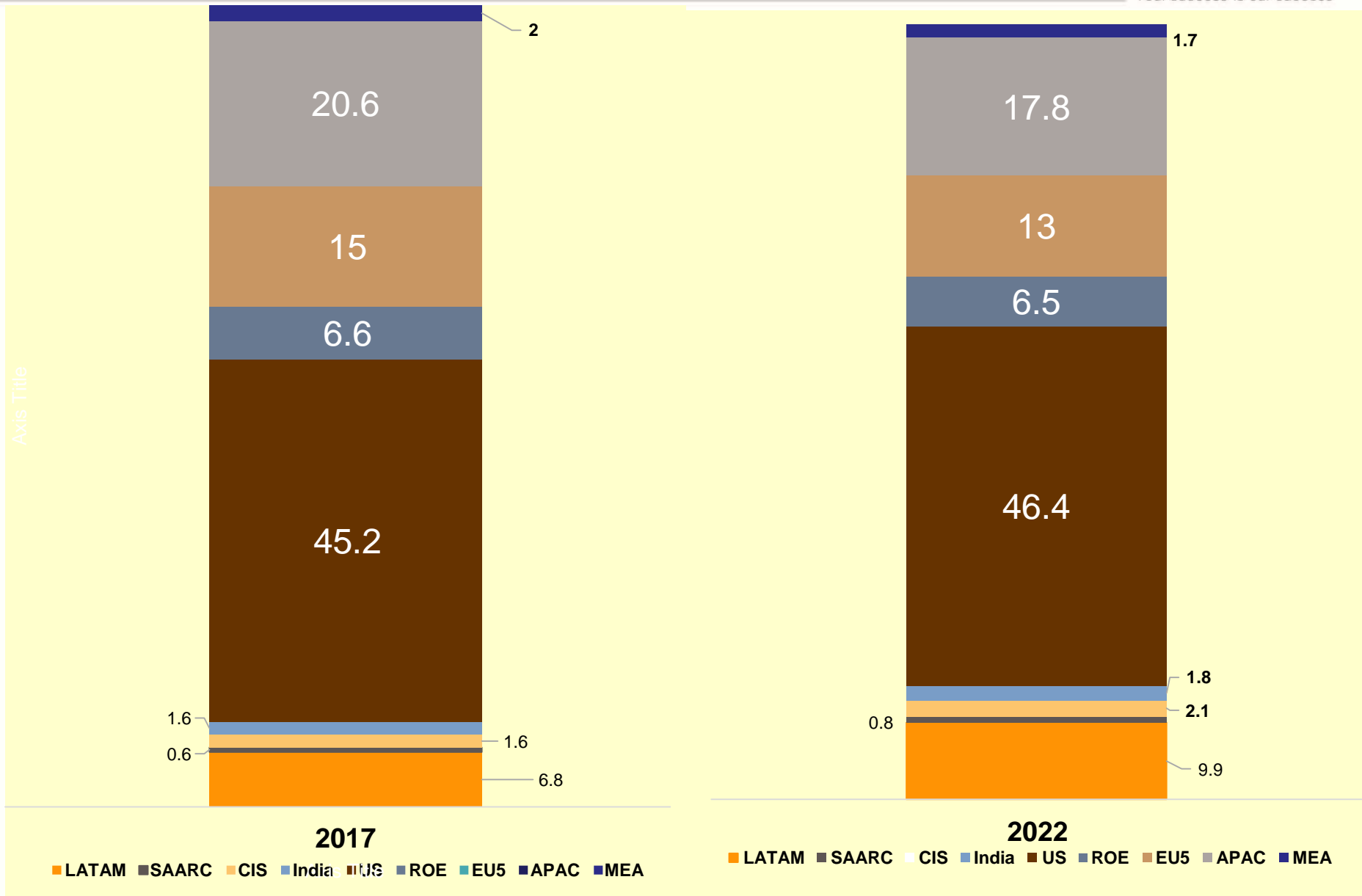


2017

2022

■ LATAM
 ■ SAARC
 ■ CIS
 ■ India
 ■ US
 ■ ROE
 ■ EU5
 ■ APAC
 ■ MEA

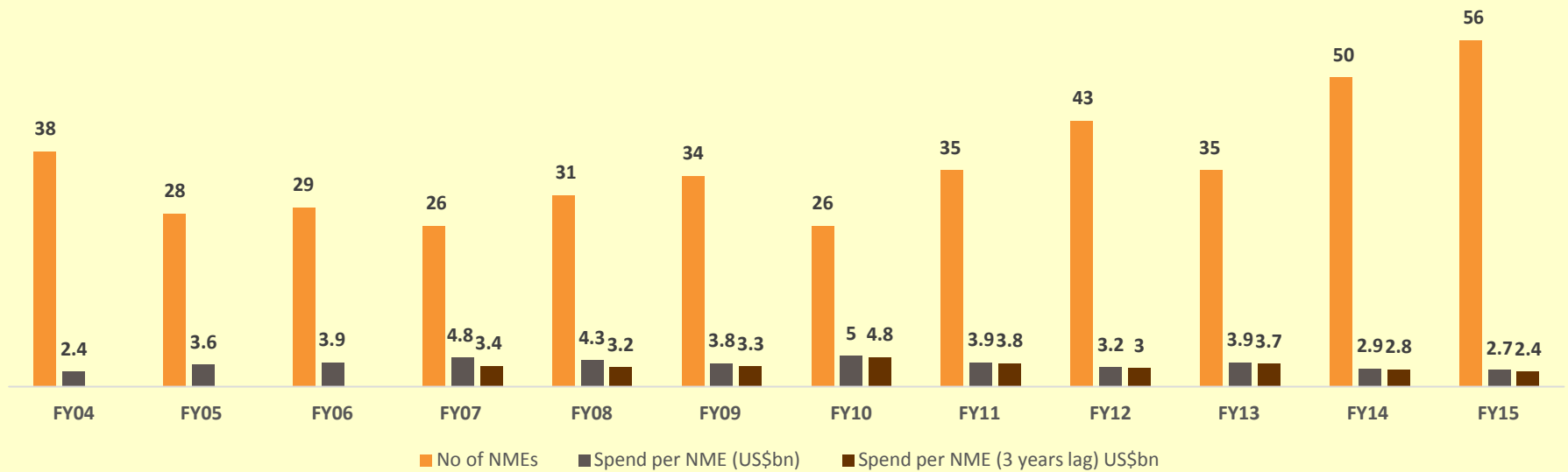
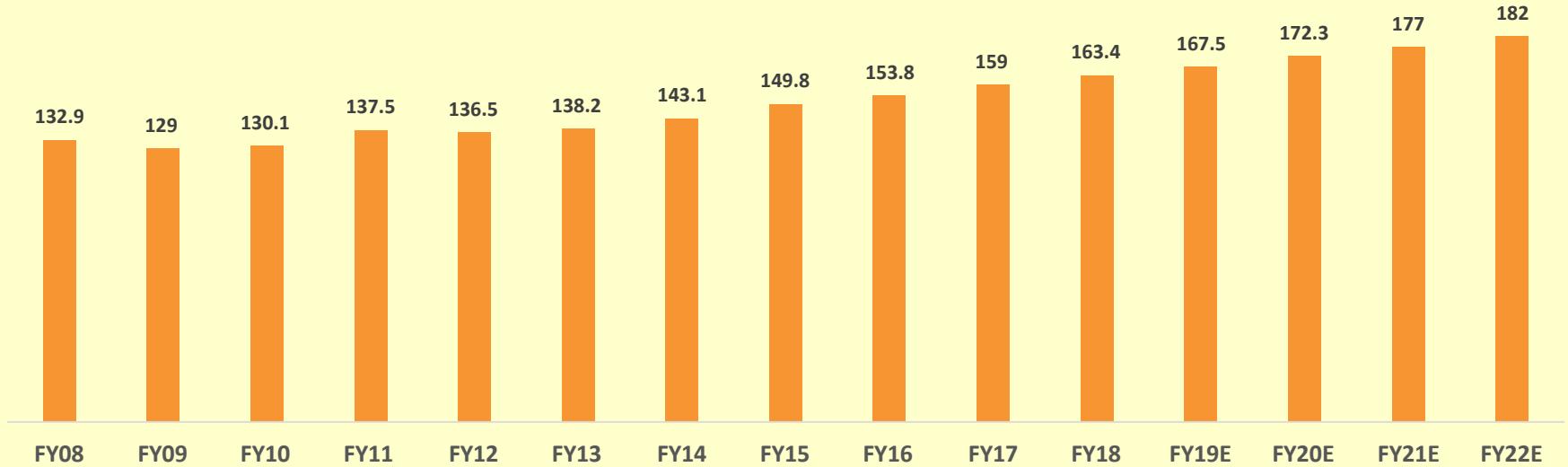
Global Pharmaceutical Market Share Region wise(%)



R& D Market

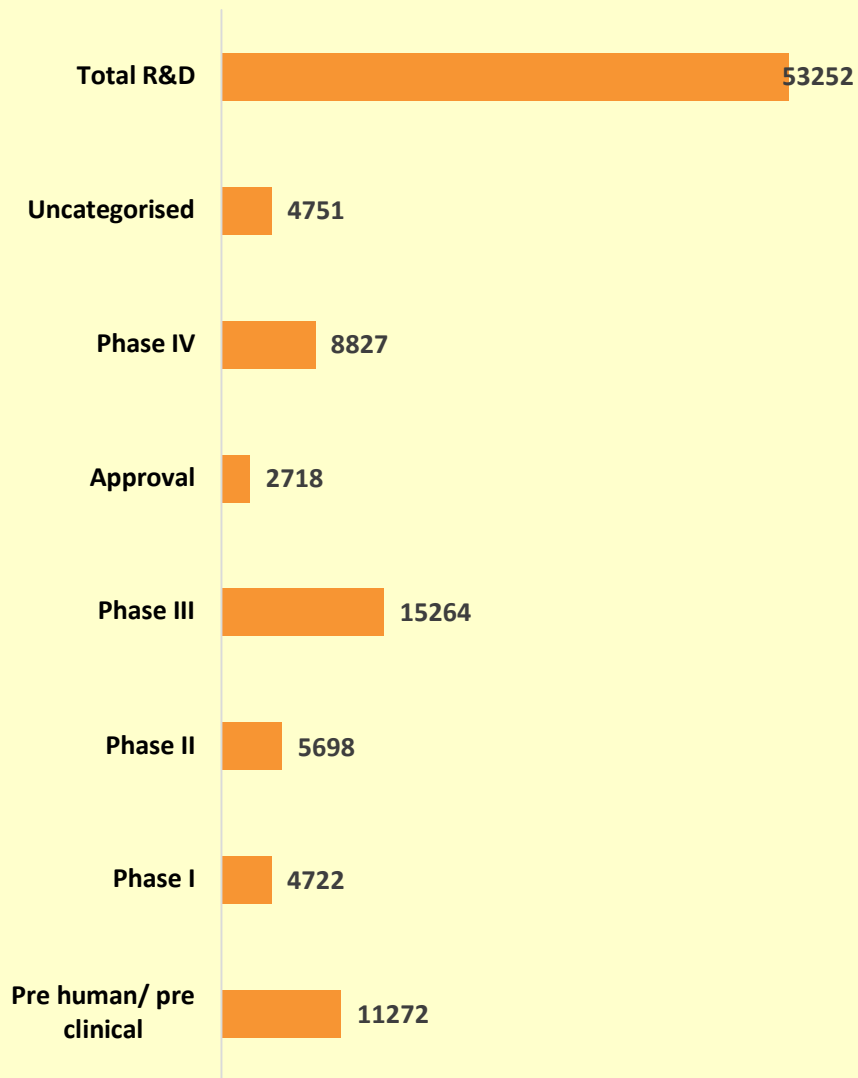
Global Pharma R&D Spent

US\$bn

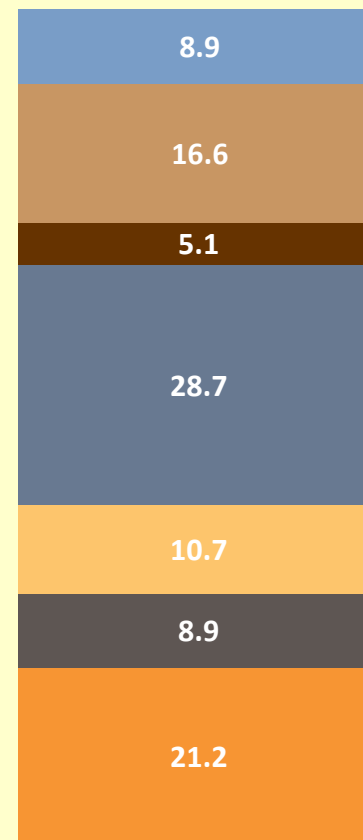


■ No of NMEs
 ■ Spend per NME (US\$bn)
 ■ Spend per NME (3 years lag) US\$bn

US\$m



% Share in R& D Costs in US



- Pre human/ pre clinical
- Phase I
- Phase II
- Phase III
- Approval
- Phase IV
- Uncategorised

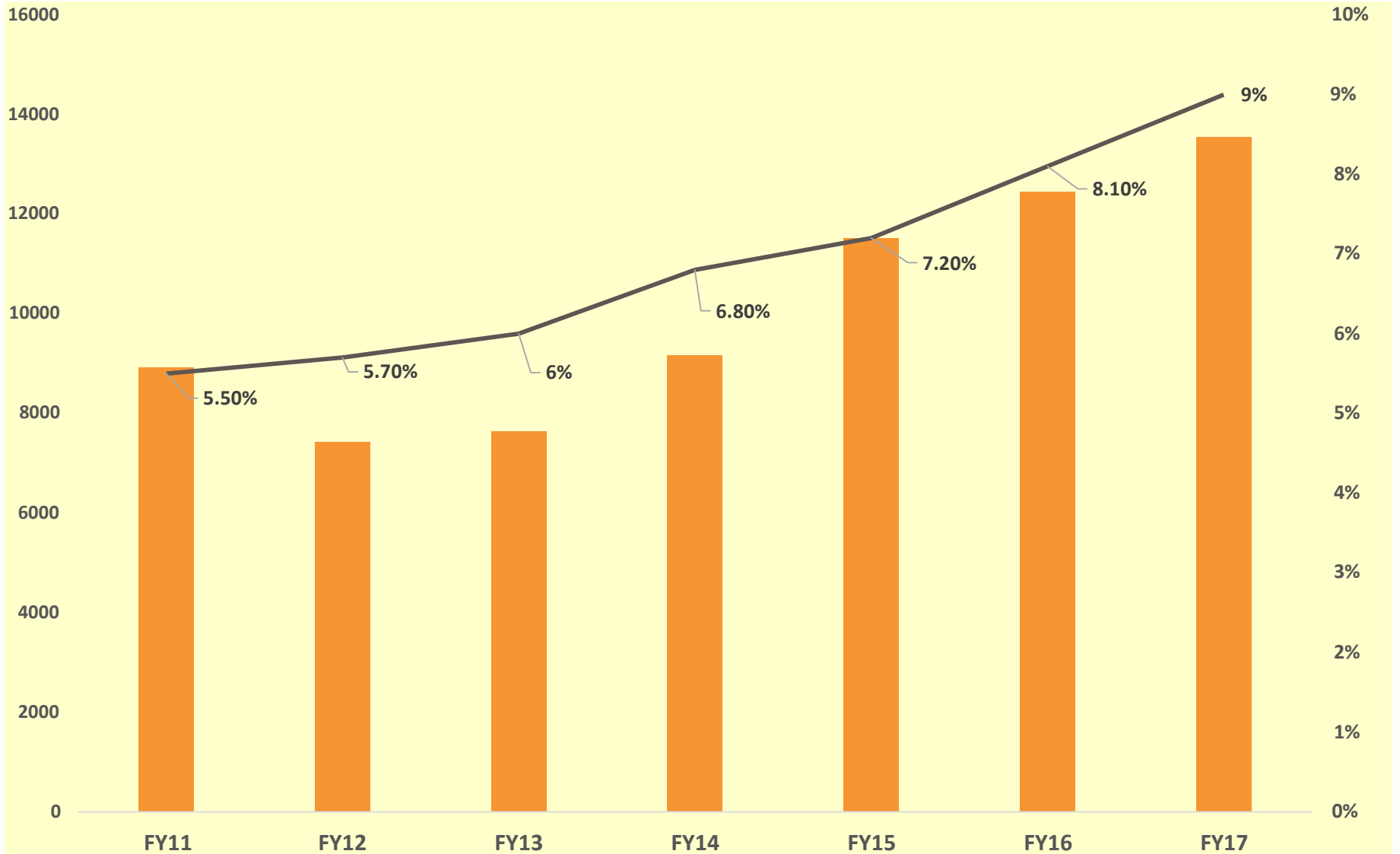
Phase I to Phase II	63.20%
Phase II to Phase III	30.70%
Phase III to NDA/BLA	58.10%
NDA/BLA to approval	85.30%
Phase I to Approval	9.60%

	Phase I	Phase II	Phase III	Regulatory Review	Total
Cancer	1265	1507	288	13	3073
Cardiovascular	128	230	85	7	450
Diabetes	103	132	43	3	281
Respiratory	123	198	47	2	370

Trends in Clinical trial protocol complexity	2002-03	2008--2011	% change
Total Procedure per trial protocol (median) e.g. bloodwork, routine exams, x-rays ,etc.	105.9	166.6	57.3
Total Investigative site work burden (median)	28.9	47.5	64.4
Total Eligibility criteria	31	46	48.4
Clinical Trial treatment period (median days)	140	175	25.0
Number of Case Report Form pages per Protocol (median)	55	171	210.9

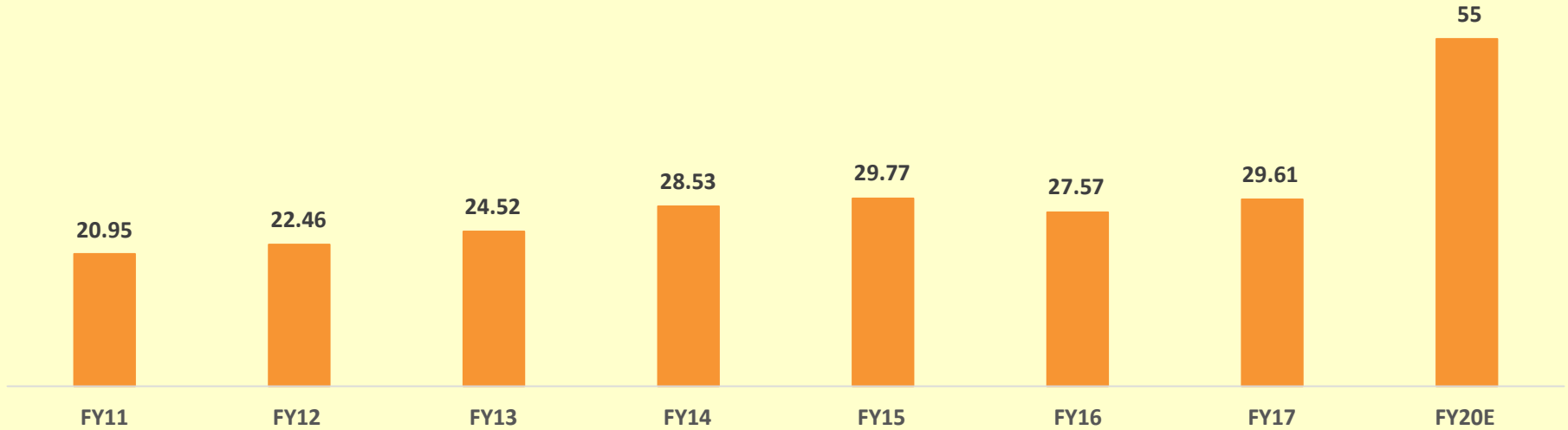
Indian Pharmaceutical Market

Companies(USD MN) & (% of Sales)

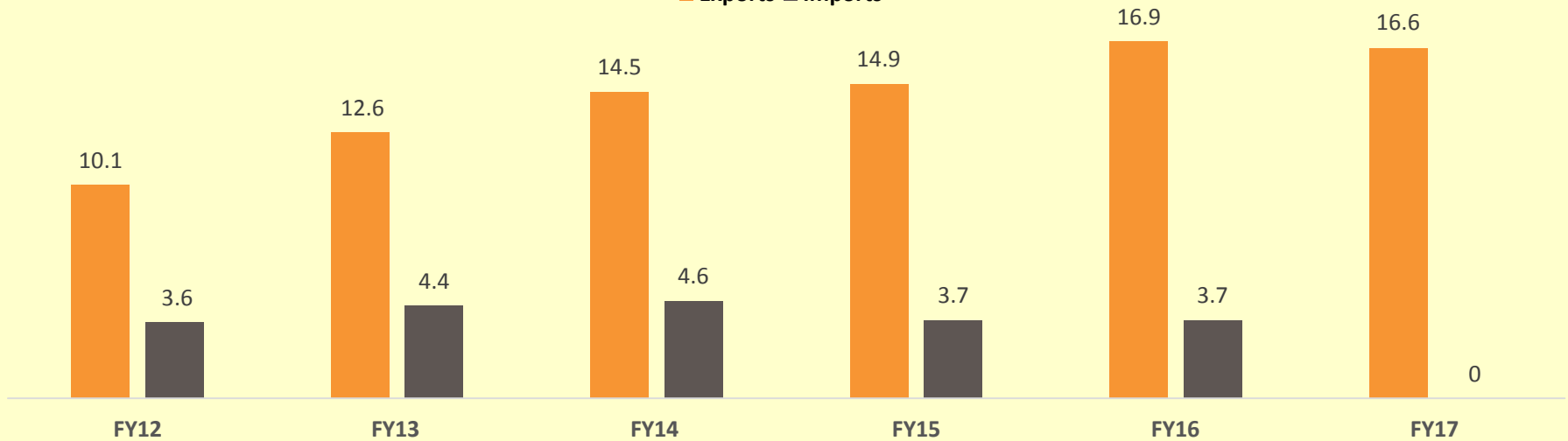


Source: CRISIL

Indian Pharmaceutical market US\$bn Sale US \$ bn



Exports Imports



Prescription Market in India

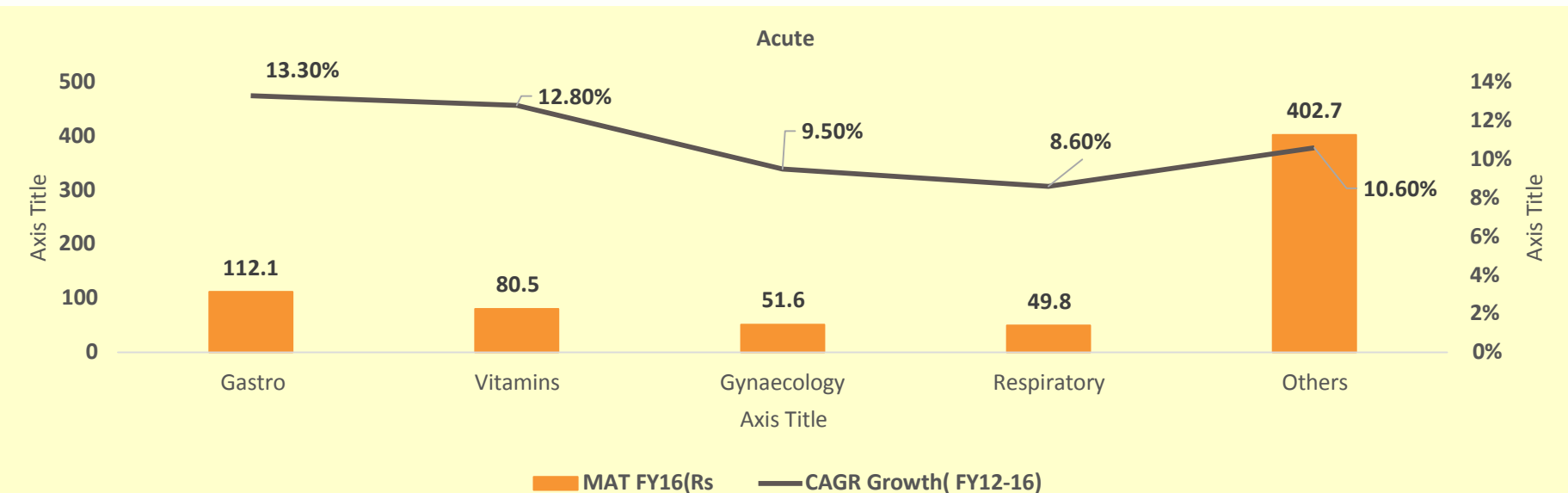
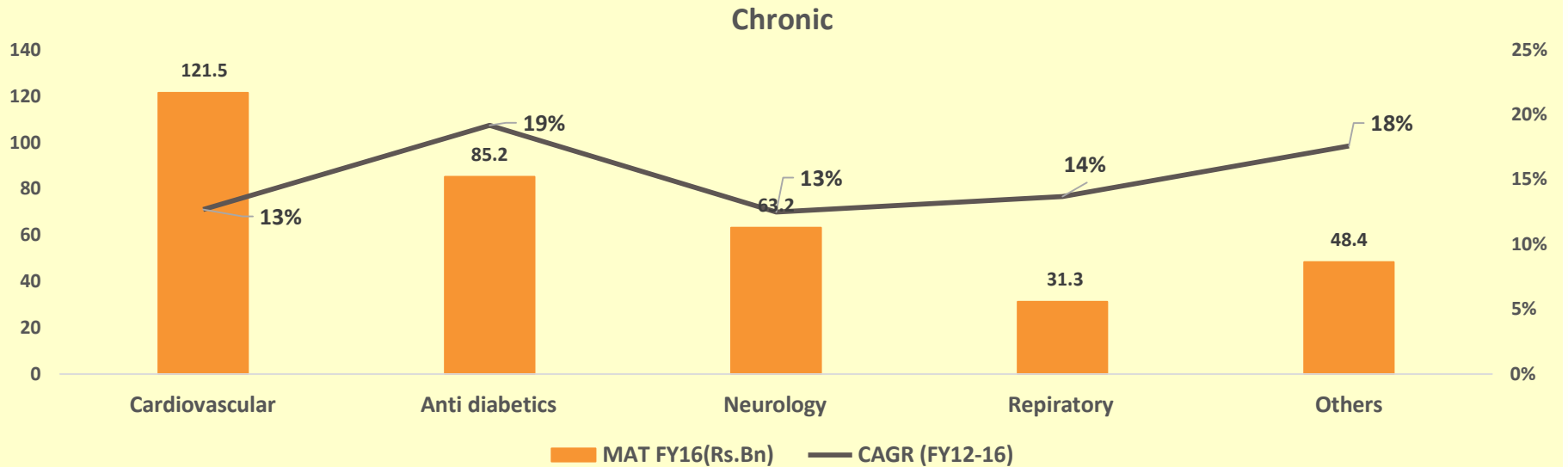


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Specialty	Prescription Share
Diabetetologist /Endocrinologists	1.10%
Cardiologists	2.40%
Gastro	1.10%
Neurologists	1.60%
Nephrologists/Urologists	1%
Others	38.30%
Consulting physicians	8.30%
Gynecologists	7.70%
General physicians (MBBS)	12.00%
General physicians (non MBBS)	26.50%
Total	100%

Specialty	Value Per Prescription (Rs)
Diabetetologist/Endocrinologists	1350
Cardiologists	990
Gastro	860
Neurologists	820
Nephrologists/Urologists	630
Others	280
Consulting Physicians	560
Gynaecologists	350
General physicians (MBBS)	200
General physicians (non MBBS)	120
Average	300

Therapeutical Revenues



Specialty(Rs. Bn)	FY12	FY13	FY14	FY15	FY16	Specialty (Growth %)	FY13	FY14	FY15	FY16
Cardiology	75.4	85.2	94.3	106	121.5	Cardiology	13.0	10.7	12.4	14.6
Anti-diabetics	42.2	50	59.6	70.7	85.2	Anti-diabetics	18.5	19.2	18.6	20.5
Neurology	39.5	43.9	48.2	54.5	63.2	Neurology	11.1	9.8	13.1	16.0
Respiratory	18.7	20.3	23.5	27.3	31.3	Respiratory	8.6	15.8	16.2	14.7
Urology	9.6	10.9	12.4	14.5	17.3	Urology	13.5	13.8	16.9	19.3
Oncology	6	7.3	10.3	12.2	15.5	Oncology	21.7	41.1	18.4	27.0
Chronic pain/analgesics	9.3	10.5	11.5	13.7	15.1	Chronic pain/analgesics	12.9	9.5	19.1	10.2
Others	0.4	0.4	0.5	0.5	0.5	Others	9.2	10.5	2.6	17.6
Total Chronic	201.2	228.4	260.3	299.4	349.6	Total Chronic	13.5	14.0	15.0	16.8
Total IPM	660	731	806.6	914.6	1046.3	Total IPM	10.8	10.3	13.4	14.4

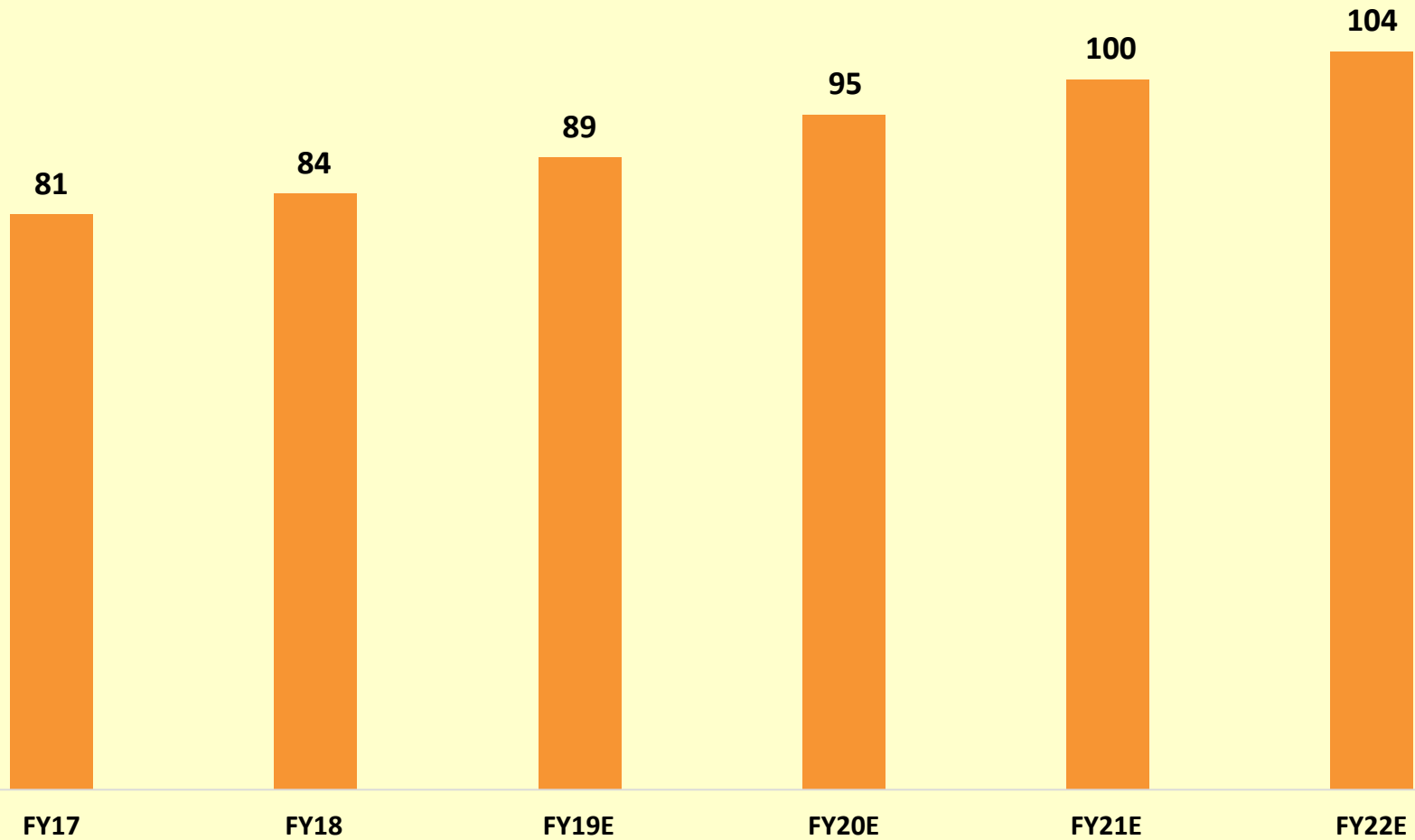
Year	No
CY12	6
CY13	19
CY14	28
CY15	26
CY16	20
CY17	16

Source: *US Food & Drug Administration*

Opportunity from high value drugs		
Year	No of drugs	Market opportunity in regulated market (US\$m)
FY18	6	1500-2000
FY19E	18	11500-12000

Source: *CRISIL*

US\$bn



Therapy wise spending in 8 developed countries				
Therapy areas	2017	2012-17 CAGR %	2022	2018-22 CAGR %
Oncology	81.1	11.8	115-130	7-10
Diabetes	72.2	16.9	105-115	8-11
Pain	76.1	5.7	80-95	2-5
Autoimmune	47.5	16.8	65-75	7-10
Respiratory	38.5	4.8	40-50	2-5
Antibiotics and vaccines	38.3	3.2	40-48	1-4
Cardiovascular	40.6	-1.8	36-44	-2/-1
HIV	26.7	11.5	32-40	5-8
Mental health	36.1	-2.6	32-38	-2/-1
Antivirals	23.8	25	16-20	-7/-4
Others	368.3	5.1	445-460	3-6

Countries Includes:

8 Developed Markets :US, France ,Germany, Italy, Spain, UK, Canada, Japan

6 Pharmerging Markets: China, Brazil, India, Turkey, Mexico,Indonesia

	2017	2013-17 CAGR %	2022	2018-22 CAGR%
Developed markets	753.2	5.8	915-945	2-5
Pharm Emerging markets	269.6	9.7	345-375	6-9
Other markets	112.3	2	125-155	2-5
Total	1335.1		1415-1445	3-6

- **Consolidation amongst the distributors and pharmacy chains.**
- **Increased product approvals and hence competition**
- **Lower number/value of drugs going off-patent**
- **Increasing price control and protectionism**
- **Pricing pressure**
- **Raw material availability from imports esp form China.**
- **Alternate source of APIs.**

Indian companies response to the international challenging scenario



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- **Improving operational efficiency**
- **Moving from simple generics to complex Genesis, Specialty products and bio similar**
- **Move into the developed markets like Europe, Japan, etc**
- **Set up R& D plants and manufacturing facilities at multiple locations**
- **Tie ups for contingency support for manufacturing**
- **Focused approach in new drug discovery**
- **Advanced analytics at operational, R&D and marketing levels.**
 - 10% improvement in R&D productivity**
 - 30% improvement in the manufacturing throughput**
 - 15% improvement in deviations helping the quality**
 - 20 % improvement In customs services**
- **Continuous training o the professionals**
- **M&A as an opportunity**
- **Strategy for US FDA awnings**

- Improvement in the regulatory compliance
Improvement in the operational efficiency
Engagement with the doctors
- Help of digital media
Improvement in patient involvement
Relationship with Pharmaceutical chains - e-pharmacies
- Improved spend on general awareness about various diseases

Capital Markets & Healthcare Sector

Criteria to Select a Good Parma Company for Long Term



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▶ **Quality of management**

▶ **Size of the Company**

▶ **Business Model: Generic/Formulation**

▶ **Key Markets**

▶ **Whether in specialty segments?**

▶ **Number of US FDA plants**

▶ **Total product Portfolio**

▶ **Whether in Complex generics**

▶ **R&D spent as % of Sales**

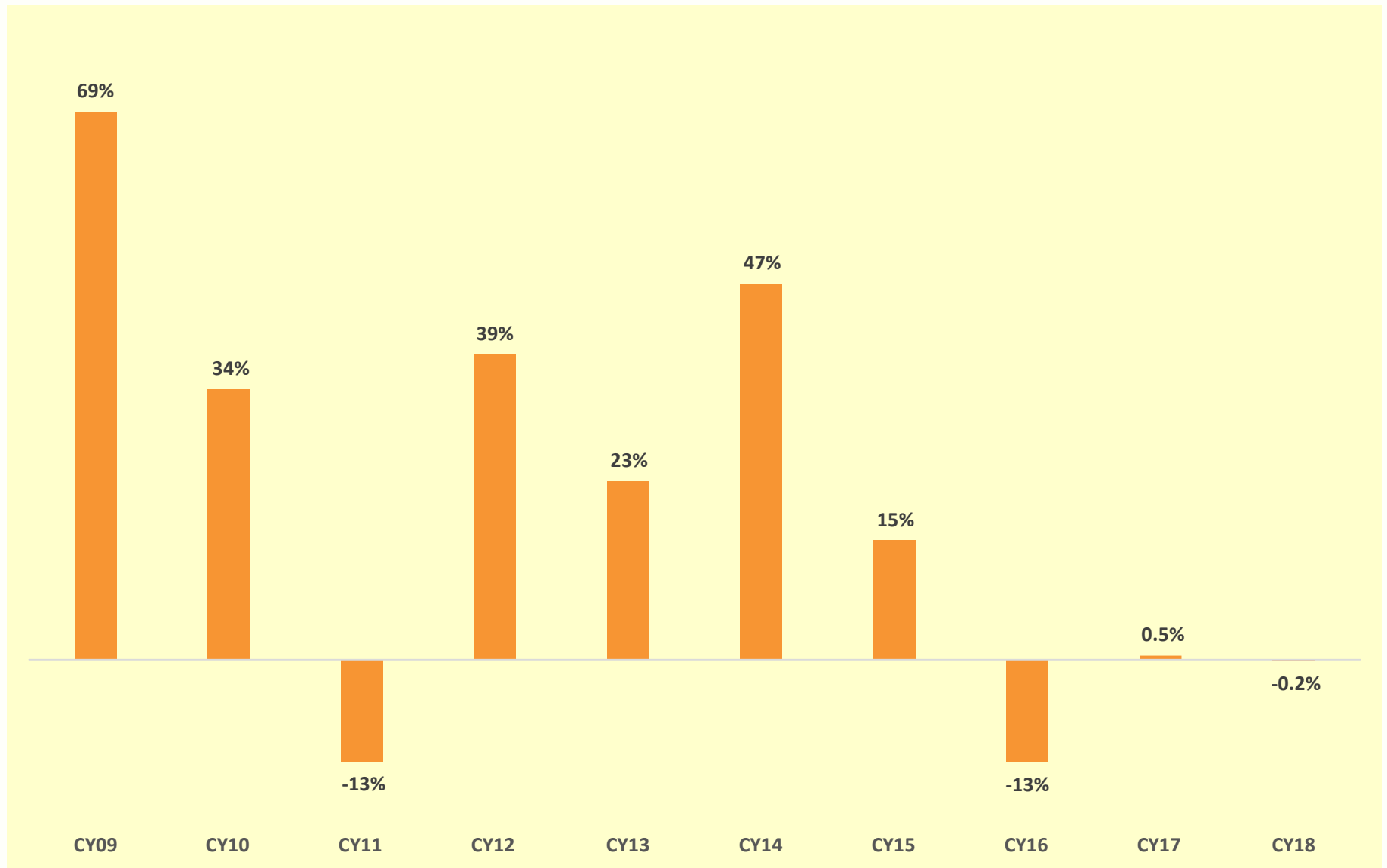
▶ **Return Ratios**

▶ **Cash Flows**

▶ **Dividend Policy**

▶ **Valuations**

BSE Healthcare Index Return last 10 years

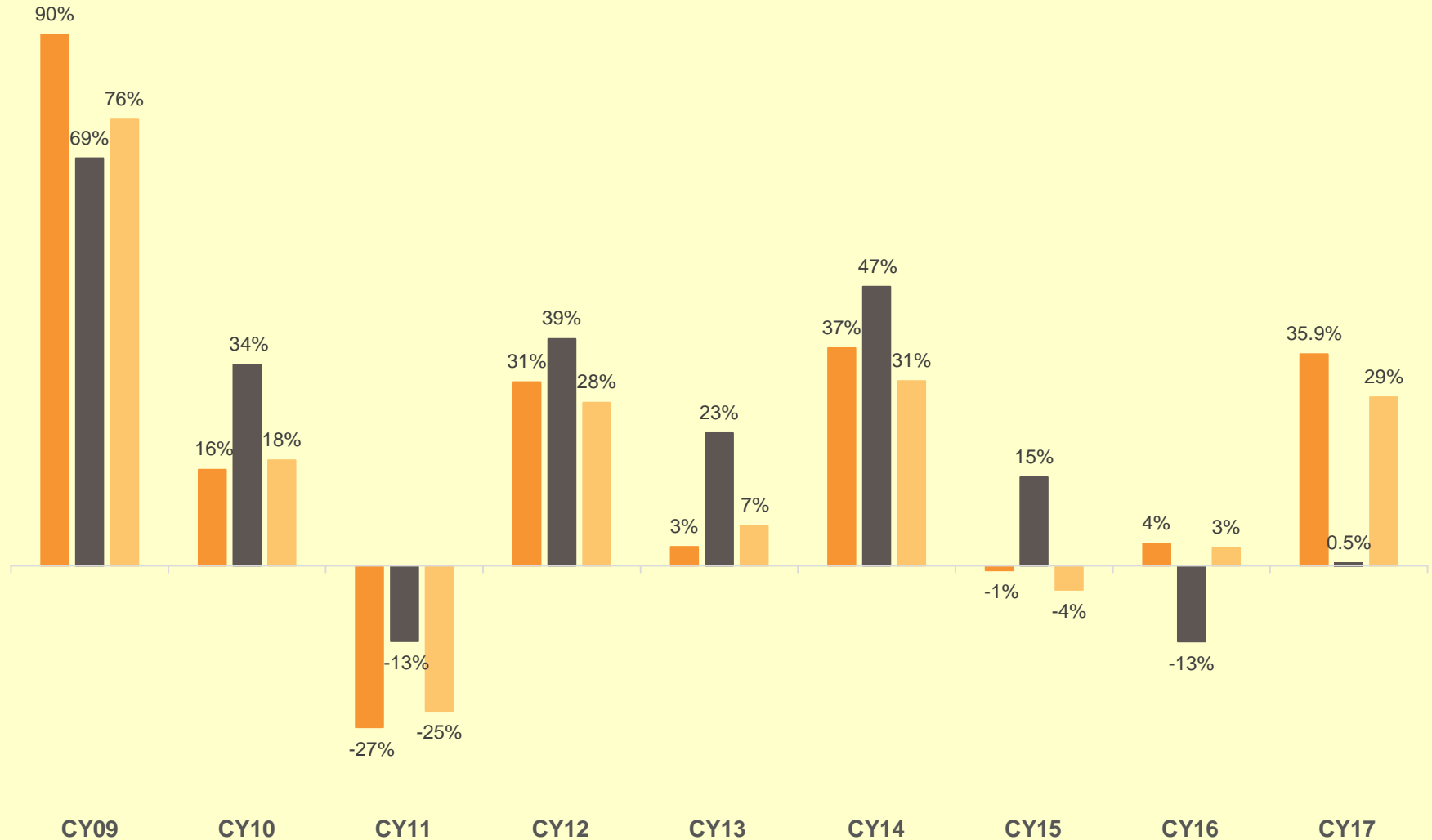


BSE Sensex Vs BSE Pharmaceutical Healthcare Vs Nifty 50



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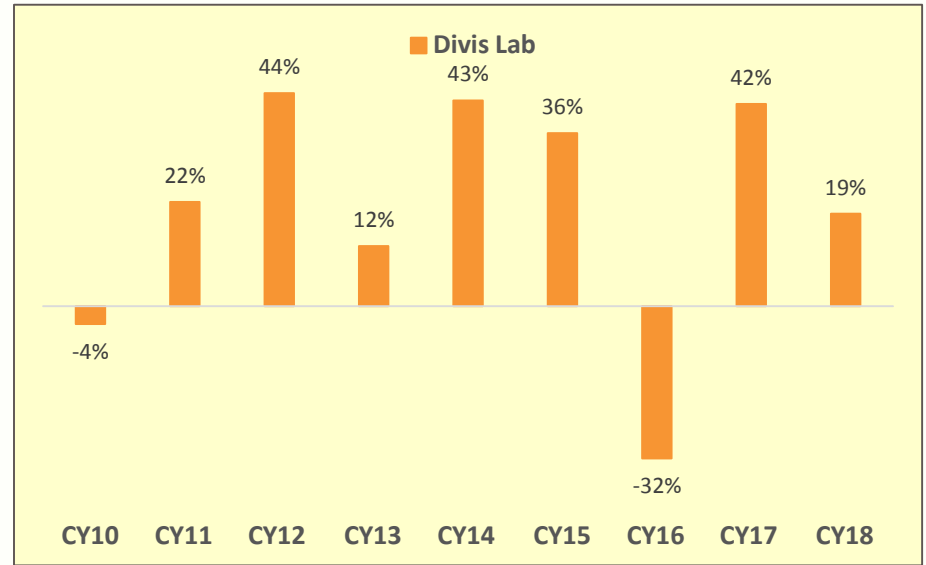
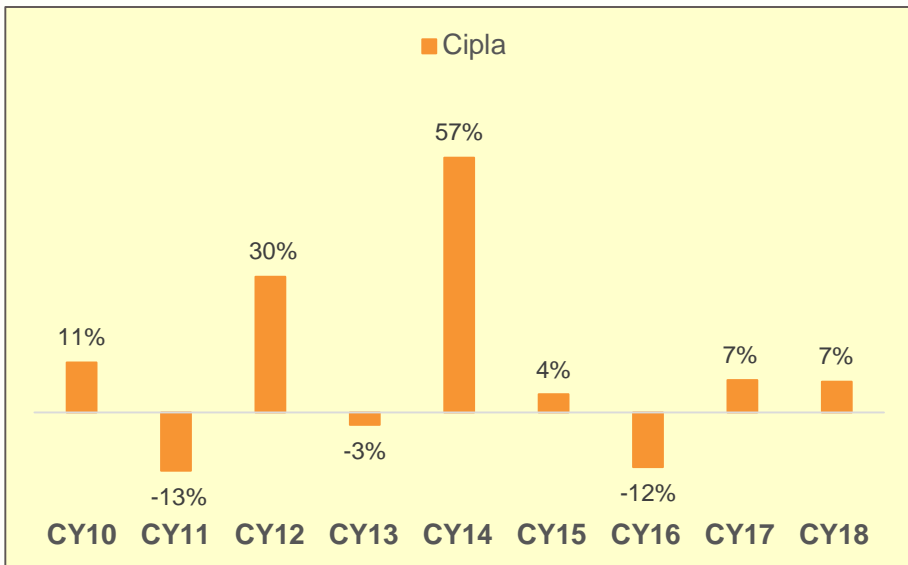
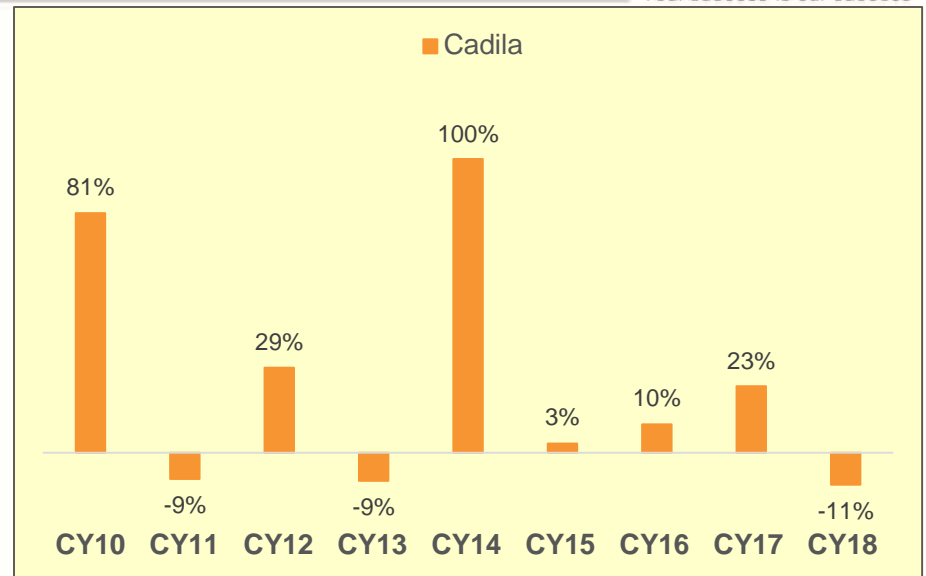
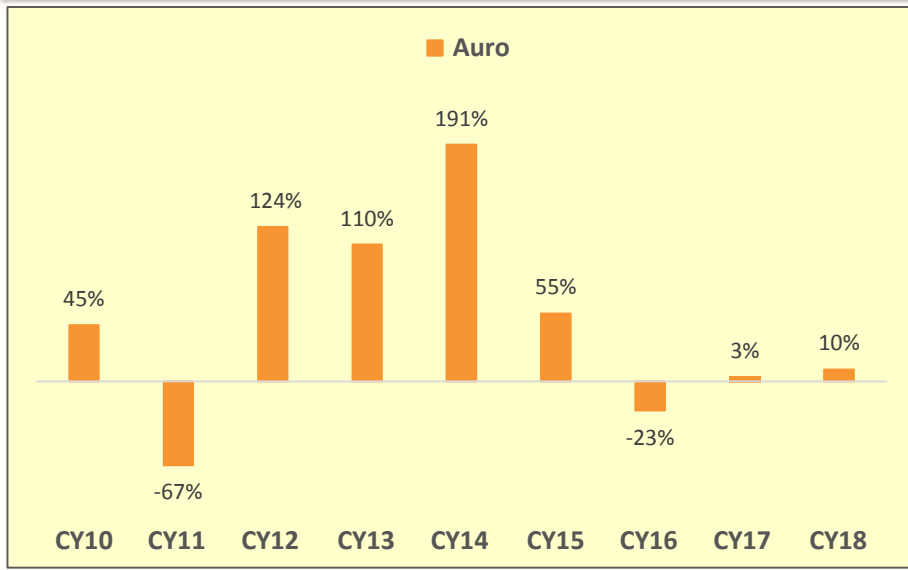
■ BSE 500 ■ Pharma Healthcare ■ Nifty 50



Emkay Universe Pharmaceutical Stock Return(CY2009-YTD)(1/3)



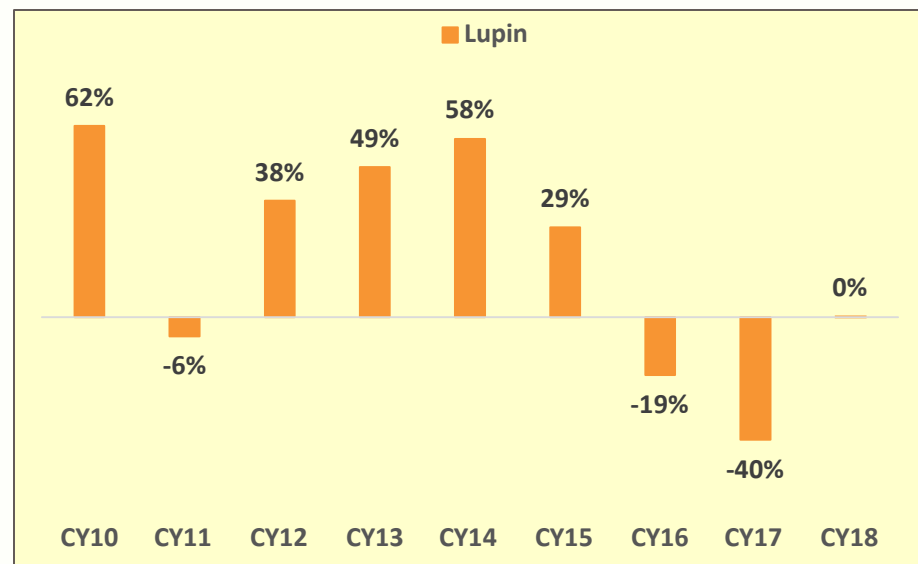
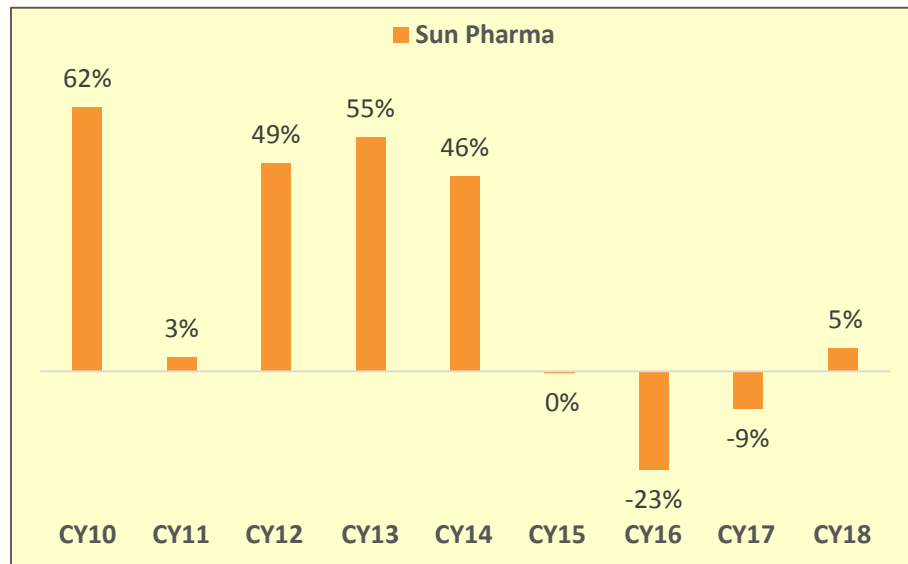
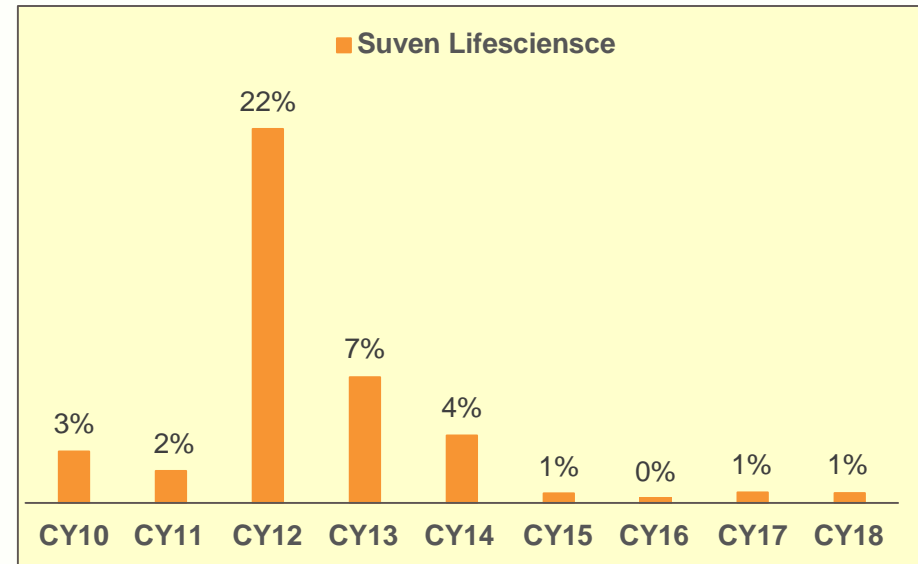
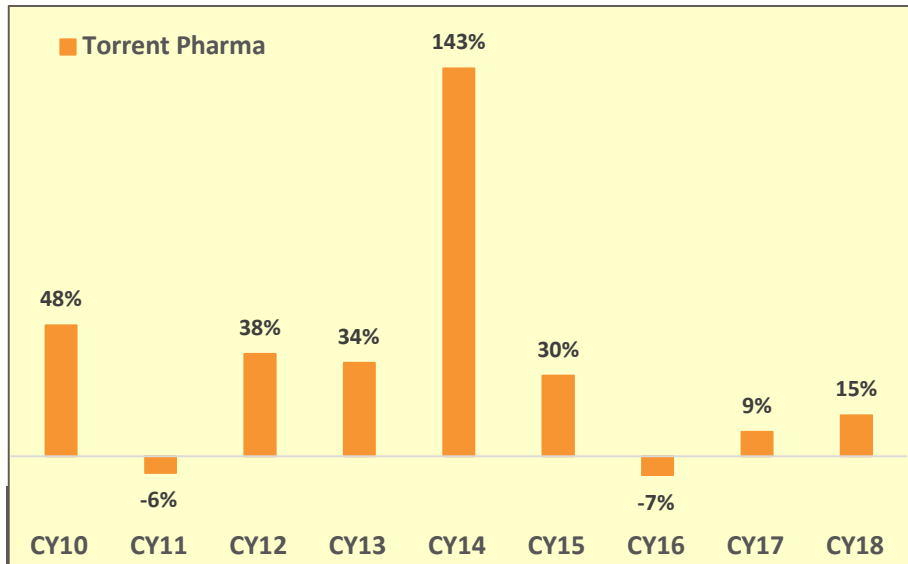
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Emkay Universe Pharmaceutical Stock Return(CY2009-YTD)(2/3)



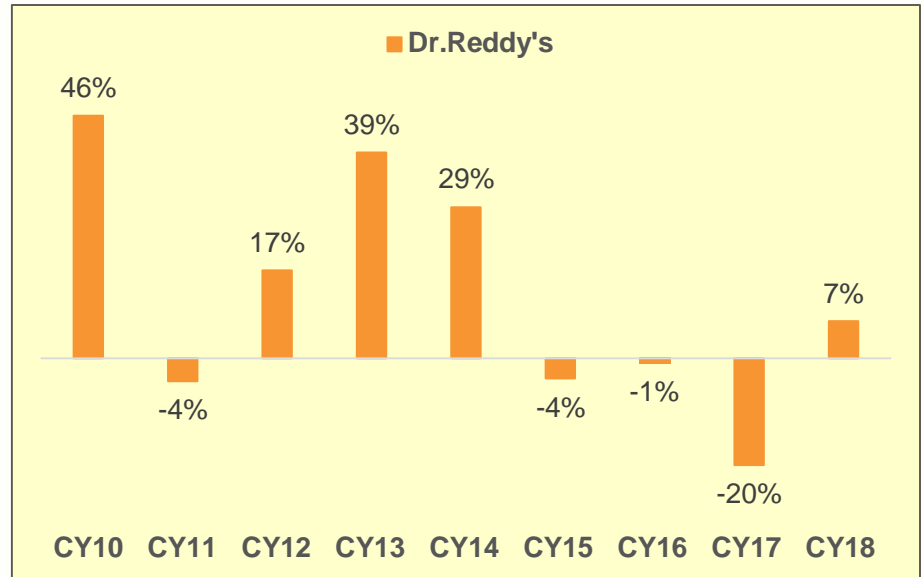
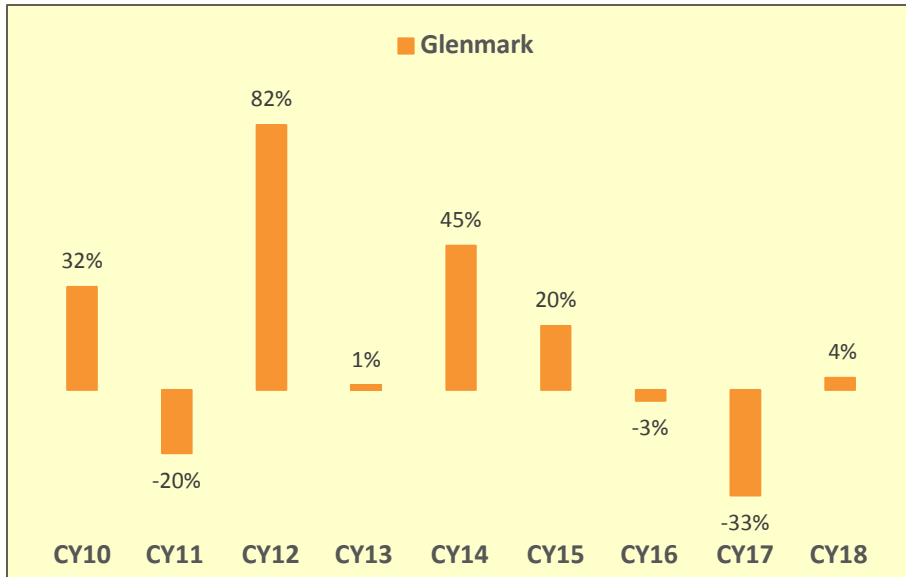
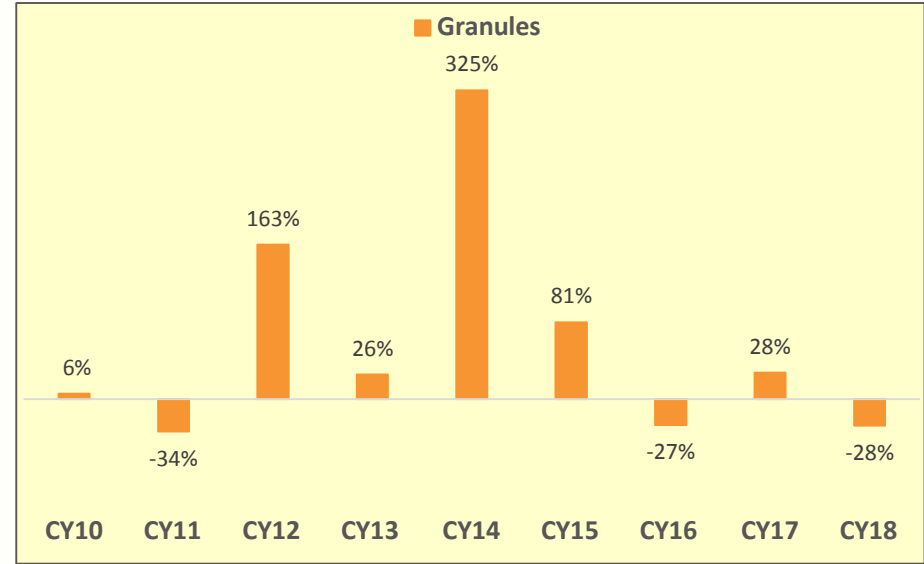
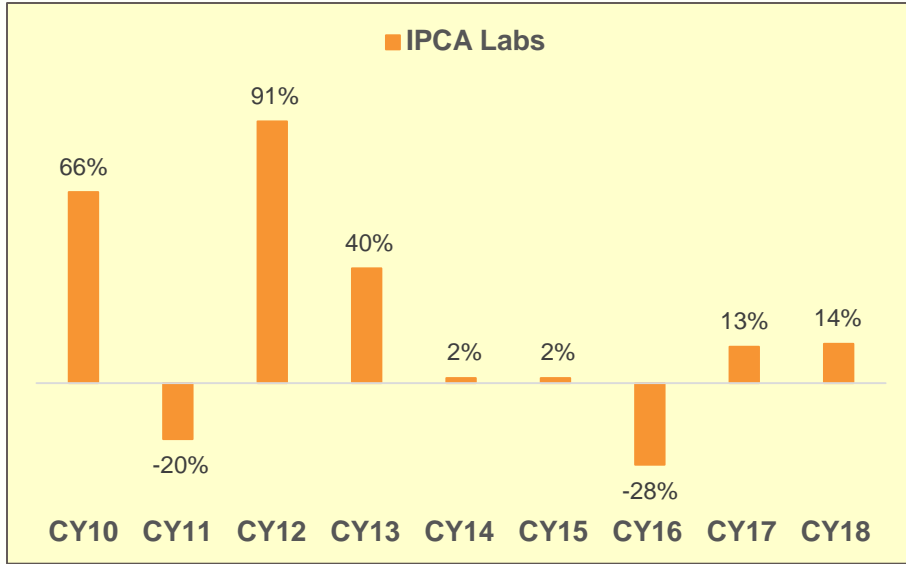
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Emkay Universe Pharmaceutical Stock Return(CY10-YTD)(3/3)



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Earnings Forecast for Emkay Universe Companies Q2FY19

Company Name	Price (Rs)	Mkt Cap (Rs bn)	Reco	Target Price (Rs)	Sales (Rs mn)		EBITDA (Rs mn)		PAT (Rs mn)		EPS (Rs)		PE(x)		PB(x)		ROCE(%)		ROE(%)	
					FY19e	FY20e	FY19e	FY20e	FY19e	FY20e	FY19e	FY20e	FY19e	FY20e	FY19e	FY20e	FY19e	FY20e	FY19e	FY20e
Pharmaceuticals																				
Aurobindo Pharma	735	431	Buy	880	185,502	279,680	39,221	58,458	24,091	33,133	41.1	58.6	17.9	13.0	3.1	2.8	19.1	21.1	18.9	21.7
Cadila Healthcare	375	384	Hold	380	129,947	142,691	28,998	33,028	17,856	21,513	17.4	21.0	21.5	17.9	4.0	3.3	16.1	16.8	20.0	20.3
Cipla	637	513	Hold	630	165,499	190,008	34,275	43,332	18,307	23,980	22.7	29.8	28.0	21.4	3.3	2.9	13.2	15.2	12.3	14.5
Divi's Lab	1,281	340	Accumulate	1,560	44,512	51,652	16,035	19,763	11,685	14,262	44.0	53.7	29.1	23.8	5.1	4.5	24.3	26.1	18.6	20.1
Dr. Reddy's Lab	2,342	389	Accumulate	2,865	150,340	171,984	25,945	34,064	12,763	18,851	78.9	113.6	30.5	20.6	2.9	2.8	8.1	11.6	9.8	13.3
Glenmark Pharma	595	168	Hold	595	100,708	109,842	16,813	18,612	8,180	9,385	29.0	33.3	20.5	17.9	2.8	2.5	14.2	14.4	14.8	14.8
Granules India	92	23	Buy	141	19,061	22,903	3,187	4,605	1,704	2,678	6.7	10.6	13.8	8.8	1.6	1.4	10.6	15.1	12.4	17.2
Ipca Lab	616	78	Hold	720	36,383	39,886	6,168	7,630	3,644	4,790	28.9	38.0	21.3	16.2	2.6	2.3	13.8	16.0	12.8	14.8
Lupin	849	384	Hold	785	172,147	190,485	36,123	42,270	15,887	19,530	35.2	43.2	24.1	19.6	2.5	2.3	10.4	12.7	10.7	12.2
Sun Pharma	605	1,450	Hold	590	299,693	333,491	62,591	87,169	36,899	56,395	15.4	23.5	39.3	25.7	3.6	3.2	10.0	13.5	9.4	13.1
Suven Life Sciences	242	31	Buy	350	6,597	7,221	1,738	2,272	1,252	1,671	9.8	13.1	24.6	18.4	3.6	3.1	20.8	24.7	15.3	17.9
Torrent Pharma	1,560	264	Accumulate	1,660	79,134	89,686	21,489	25,928	8,756	12,719	51.7	75.2	30.2	20.8	4.6	4.0	14.3	17.6	16.9	20.5

Thank You

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Contact Person

Mr. Ajay Parmar

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