

Equities

27 September 2011 | 9 pages

Citi China HealthScope

Prescription Data Analysis in 2Q Suggests Better Growth in Tier 2/3 Cities but Slower Growth in Tier 1 Markets

■ Industry Overview

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■ **Conclusion(s)** — Our analysis of proprietary prescription data from 420 hospitals in 22 major cities in 2Q reveals several geographic and therapeutic trends: 1) y/y growth rate of +12.1% was the slowest since 1Q08 (vs +14.5% y/y in 1Q11, Figure 1); we believe that slower growth was not due to lower demand but rather a tough comp vs 2Q10 based on our analysis of business cycle for the healthcare sector (see our note [China Healthcare Sector In-Depth Analysis - Part 1: What We Learned from the Past Up and Down Cycles](#); where we think growth rate in 2Q10 peaked); 2) while growth in tier 2 cities remains strong with growth ranging from 15%~30%, growth in tier one cities such as Shanghai slows further vs 1Q11; 3) growth for hepatitis B and cancer drugs was solid, but antibiotics sales declined by -1.8% y/y (vs +11.3% in 1Q11), reflecting earlier adoption of restrictive use of antibiotics from the new clinical guideline by some hospitals and NRDC price cut on antibiotics products effective on March 28, 2011 (see Figures 4-12). We expect some recovery in antibiotics use in 2H going into flu season.

■ **Growth Divergence in Therapeutic Categories** — In 2Q we note a general slowdown in antibiotics, cardiovascular, digestive system, respiratory system and endocrine drugs but also note higher growth for hepatitis B and cancer drugs, while growth remains flattish for CNS drugs vs 1Q: 1) hepatitis B drugs and anti-cancer drugs showed higher growth (+34.7% 2Q vs +28.6% 1Q and +30.8% 2Q vs 14.6% 1Q) with improved reimbursement; 2) antibiotics remained as the largest therapeutic class with 22.8% market share of total drug market, but overall sales declined by -1.8% y/y (vs. +19.8% y/y in 2Q10 and +11.3% in 1Q11),

■ **Tier 1 Markets Remains Slow in 2Q** — 1) Shanghai market only grew 4.5% (vs +15.2% in 2Q10 and +8.2% in 1Q11), largely due to implementation of the reimbursement “double capping” (双控) in hospitals across Shanghai since 2H10. 2) growth in Beijing improved from -0.8% y/y in 1Q11 to +5.4% y/y in 2Q, but still well below +14.1% y/y in 2Q10; we believe that the weak Beijing market was impacted by “reimbursement by disease types” (按病种付费); 3) y/y growth in Guangzhou was +14.1%, above national average but was slower than +28.8% y/y in 2Q10 and +15.6% in 1Q11 (Figures 2 and 3)

■ **Better Growth in Tier 2 and 3 Cities** — 1) Although slower than 33.9% y/y growth in 2Q10, western cities such as Guizhou, Chengdu and Chongqing showed solid y/y growth of 27.5%, 21.4% and 19.4% respectively; 2) growth in central China cities such as Xi'an, Wuhan, Shanxi and Changsha accelerated, increasing from +9.9% y/y in 2Q10 to +19.7% y/y in 2Q11. Higher growth rates in tier 2 and 3 cities could be the result of governments' focus on improving reimbursement in these markets.

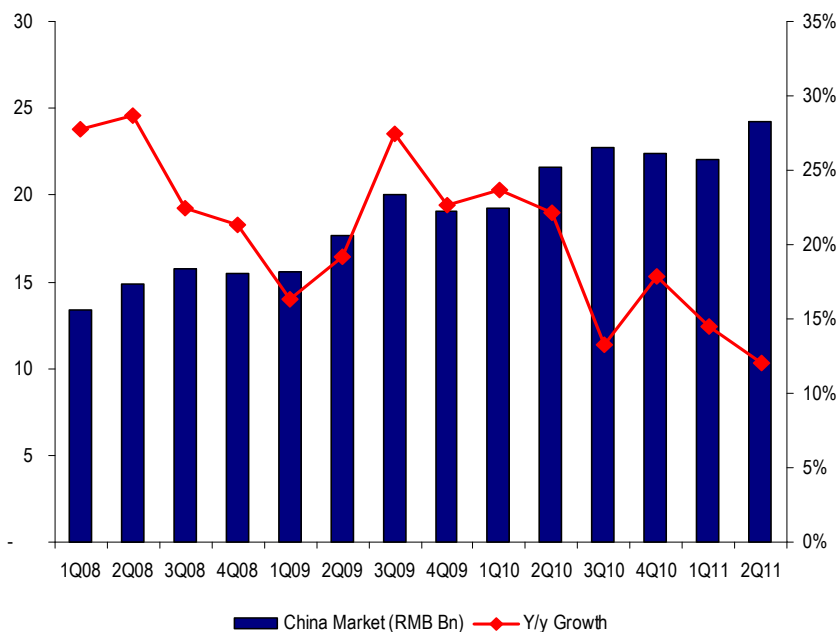
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Analysis of Prescription Drug Market in 2Q

2Q Growth was Slowest since 1Q08

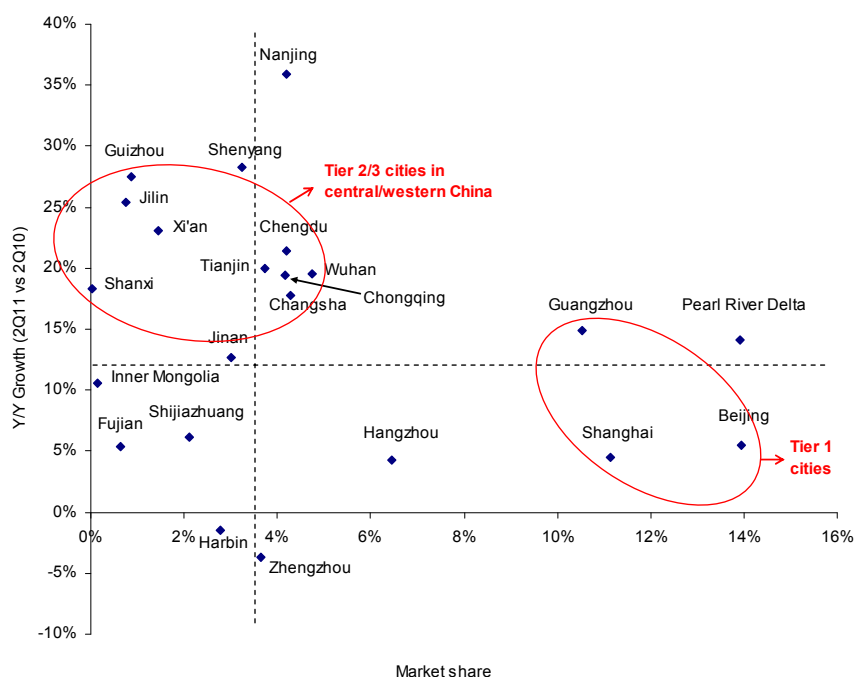
Figure 1. China Prescription Drug Market (Rmb Mn, By 2Q11)



Source: Citi Investment Research and Analysis

Tier 1 Cities Had Slower Growth

Figure 2. China Prescription Drug Market By Province (2Q'11 y/y Growth – Market Share)



Source: Citi Investment Research and Analysis

Figure 3. Key Prescription Drug Markets in China

城市	City	05-'10 CAGR	1Q'10 Y/Y	2Q'10 Y/Y	1H'10 Y/Y	3Q'10 Y/Y	4Q'10 Y/Y	1Q'11 Y/Y	2Q'11 Y/Y	1H'11 Y/Y	▲ / ▼
南京	Nanjing	19.3%	15.3%	10.4%	12.7%	10.0%	7.7%	14.7%	35.9%	25.8%	▲
沈阳	Shenyang	17.6%	22.7%	23.5%	23.1%	18.7%	19.3%	22.7%	28.3%	25.7%	▲
贵州	Guizhou	12.7%	36.2%	44.4%	40.3%	22.7%	17.8%	22.3%	27.5%	25.0%	▼
吉林	Jilin	27.6%	28.0%	42.2%	35.4%	37.5%	33.3%	24.3%	25.4%	24.9%	▼
西安	Xi'an	22.0%	14.7%	16.3%	15.6%	18.1%	31.3%	32.0%	23.1%	27.2%	▲
成都	Chengdu	23.1%	27.8%	23.4%	25.4%	16.4%	29.3%	31.1%	21.4%	25.9%	▼
天津	Tianjin	22.6%	35.1%	35.3%	35.2%	25.5%	32.3%	28.9%	20.0%	24.1%	▼
武汉	Wuhan	22.7%	27.2%	19.2%	22.9%	18.3%	19.7%	18.4%	19.5%	19.0%	▲
重庆	Chongqing	24.2%	37.0%	33.8%	35.3%	32.4%	22.9%	22.1%	19.4%	20.7%	▼
山西	Shanxi	20.1%	-14.3%	-17.0%	-15.8%	22.2%	-2.6%	36.9%	18.4%	27.1%	▲
长沙	Changsha	25.7%	19.1%	21.3%	20.3%	12.2%	24.1%	30.6%	17.8%	23.6%	▼
广州	Guangzhou	21.0%	26.3%	28.8%	27.6%	12.3%	15.2%	15.6%	14.9%	15.2%	▼
珠三角	Pearl River Delta	20.9%	25.4%	27.5%	26.5%	10.1%	13.5%	16.2%	14.1%	15.1%	▼
济南	Jinan	18.6%	15.6%	20.9%	18.4%	18.0%	11.1%	22.2%	12.7%	17.0%	▼
内蒙古	Inner Mongolia	22.5%	8.5%	71.5%	40.0%	44.0%	95.6%	56.0%	10.6%	28.2%	▼
石家庄	Shijiazhuang	24.3%	33.5%	30.6%	31.9%	20.6%	15.4%	21.4%	6.1%	13.3%	▼
北京	Beijing	19.0%	16.2%	14.1%	15.1%	13.6%	29.8%	-0.8%	5.4%	2.5%	▼
福建	Fujian	21.0%	17.1%	14.7%	15.9%	15.5%	18.7%	8.2%	5.4%	6.7%	▼
上海	Shanghai	21.6%	20.9%	15.2%	17.9%	5.8%	7.0%	8.2%	4.5%	6.4%	▼
杭州	Hangzhou	20.3%	27.4%	18.0%	22.4%	9.8%	14.8%	6.7%	4.3%	5.4%	▼
哈尔滨	Harbin	25.6%	19.9%	26.9%	23.7%	18.4%	13.2%	19.9%	-1.4%	7.9%	▼
郑州	Zhengzhou	28.6%	35.1%	30.5%	32.6%	2.3%	12.3%	14.6%	-3.7%	4.8%	▼

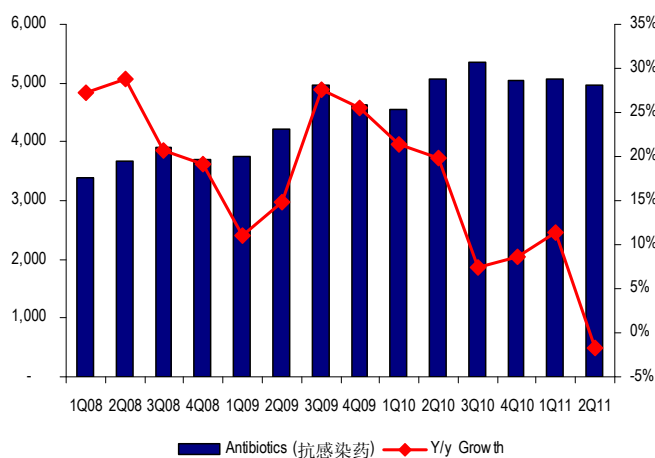
Source: Citi Investment Research and Analysis

Figure 4. Top Therapeutic Categories in China

Therapeutic Class	05-'10 CAGR	1Q'10 Y/Y	2Q'10 Y/Y	1H'10 Y/Y	3Q'10 Y/Y	4Q'10 Y/Y	1Q'11 Y/Y	2Q'11 Y/Y	1H'11 Y/Y	▲ / ▼
Hepatitis B	50.0%	22.8%	19.0%	20.8%	10.9%	24.2%	28.6%	34.7%	31.7%	▲
Central Nervous System	27.7%	30.7%	28.7%	29.6%	19.7%	24.7%	21.6%	24.5%	23.1%	▼
Anti-cancer	26.2%	18.7%	18.1%	18.4%	14.9%	23.9%	14.6%	20.8%	17.9%	▲
Respiratory System	29.4%	35.3%	39.0%	37.1%	25.0%	29.7%	29.1%	20.2%	24.6%	▼
Mental Disorder	22.1%	26.5%	22.0%	24.1%	18.0%	26.4%	23.2%	20.1%	21.6%	▼
Bone and Muscular	29.5%	26.2%	24.6%	25.4%	19.3%	25.1%	19.5%	18.3%	18.8%	▼
Endocrine	22.8%	21.5%	23.3%	22.5%	15.8%	22.1%	17.2%	15.4%	16.2%	▼
Sensory Organ	13.5%	13.6%	18.7%	16.4%	20.7%	22.0%	18.0%	14.5%	16.1%	▼
Digestive System	21.3%	22.7%	18.2%	20.3%	12.4%	17.4%	14.5%	14.2%	14.4%	▼
Blood & Hematopoietic System	21.4%	25.7%	24.0%	24.8%	15.2%	17.4%	13.2%	13.8%	13.5%	▼
Cardiovascular	19.7%	25.3%	25.0%	25.1%	15.6%	21.2%	13.8%	12.2%	13.0%	▼
Immunomodulators	19.3%	24.7%	21.5%	23.0%	8.9%	12.8%	8.8%	11.3%	10.1%	▼
Antibiotics	18.6%	21.4%	19.8%	20.5%	7.5%	8.7%	11.3%	-1.8%	4.4%	▼

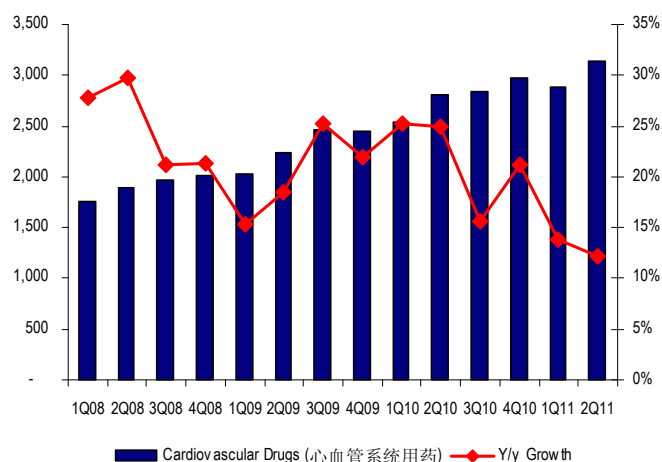
Source: Citi Investment Research and Analysis

Figure 5. Antibiotics Market (Rmb Mn)



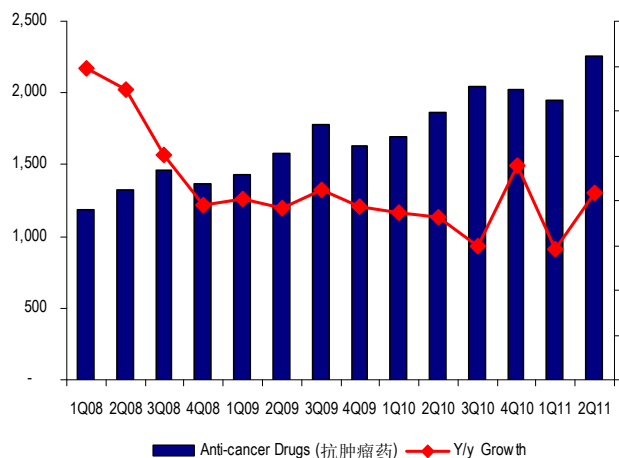
Source: Citi Investment Research and Analysis & Industry Sources

Figure 6. Cardiovascular Drugs Market (Rmb Mn)



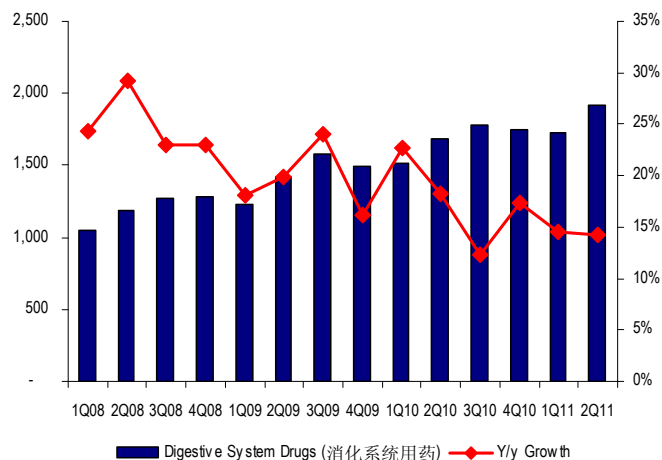
Source: Citi Investment Research and Analysis & Industry Sources

Figure 7. Anti-cancer Drugs Market (Rmb Mn)



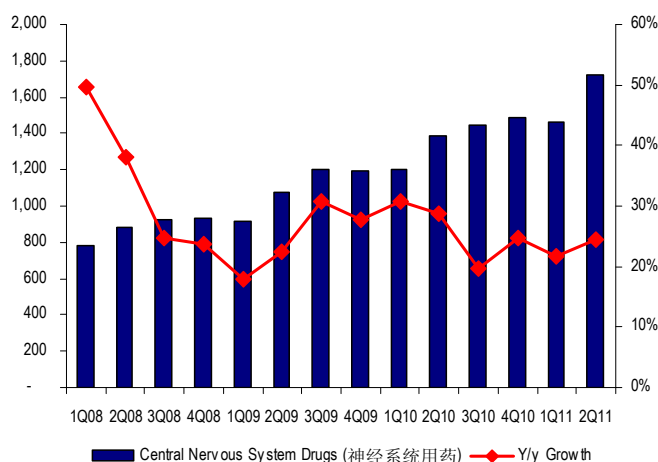
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Figure 8. Digestive System Drugs Market (Rmb Mn)



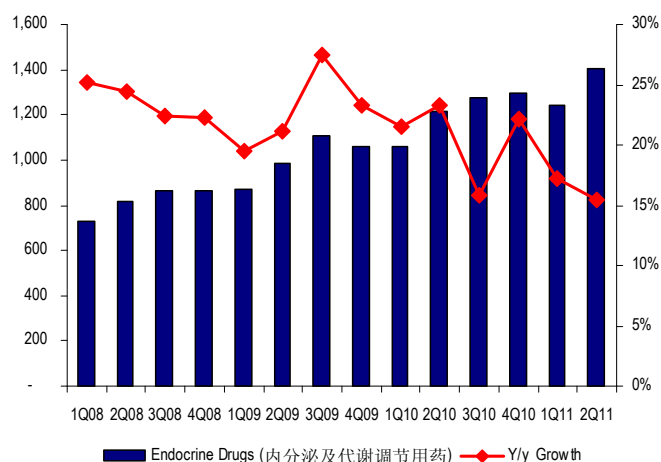
Source: Citi Investment Research and Analysis & Industry Sources

Figure 9. Central Nervous System Drugs Market (Rmb Mn)



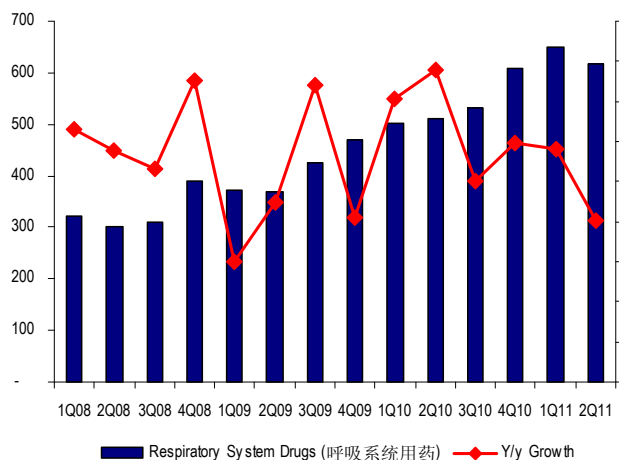
Source: Citi Investment Research and Analysis & Industry Sources

Figure 10. Endocrine Drugs Market (Rmb Mn)



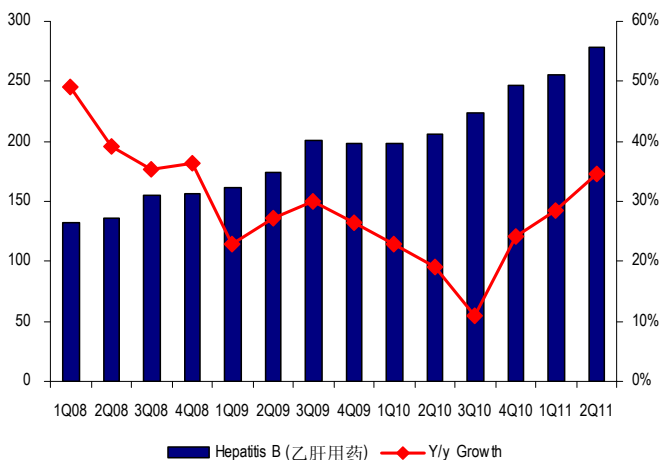
Source: Citi Investment Research and Analysis & Industry Sources

Figure 11. Respiratory System Drugs (Rmb Mn)



Source: Citi Investment Research and Analysis & Industry Sources

Figure 12. Hepatitis B Drugs Market (Rmb Mn)



Source: Citi Investment Research and Analysis & Industry Sources

Appendix A-1

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