

研发： 适应并促进中国制造业高速发展

R&D:

Adapt and Promote High-speed Development of China
Manufacturing Industry

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7th June, 2012

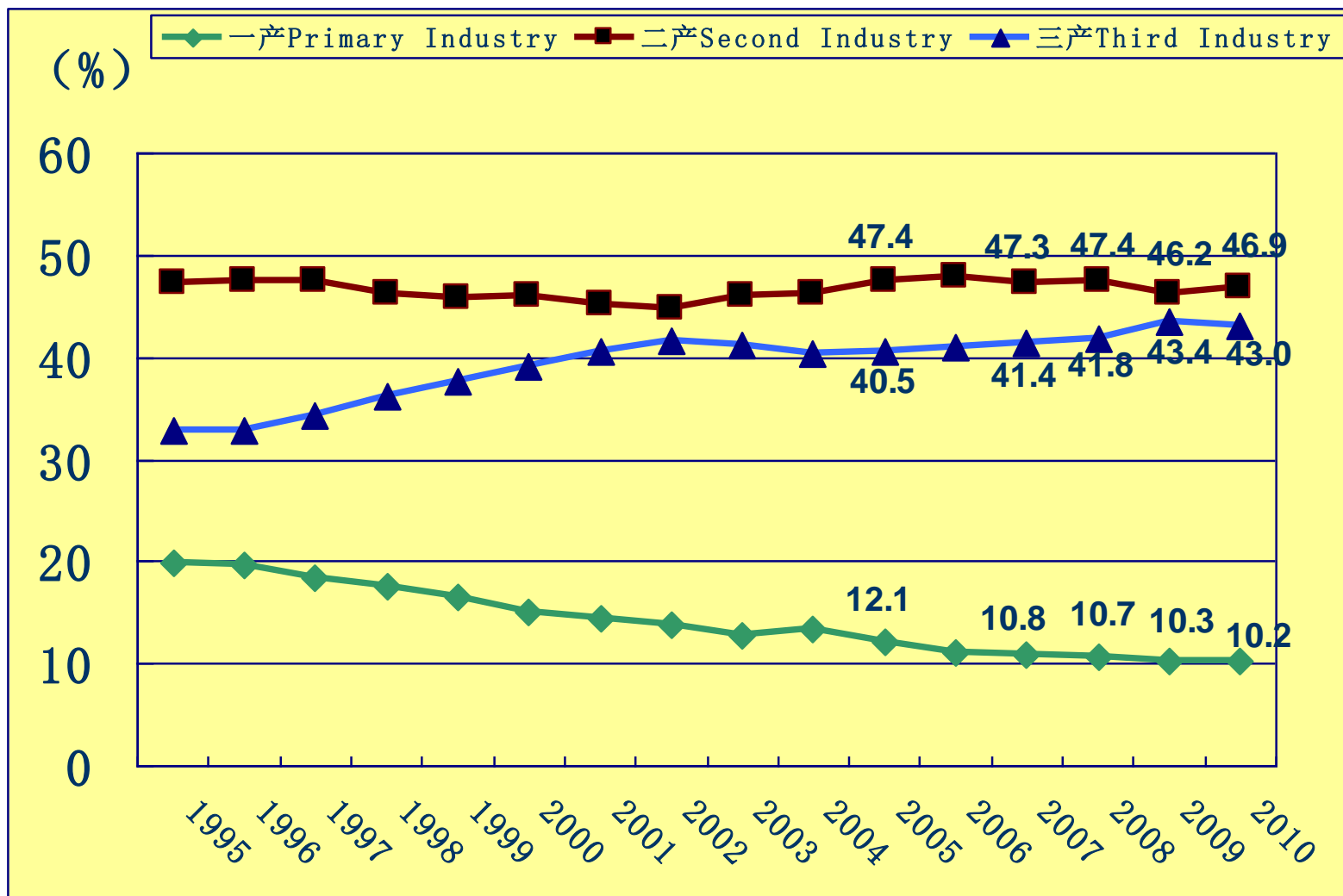
上海龙诚自动化系统有限公司

Shanghai Long Cheng Automation System Co., Ltd.



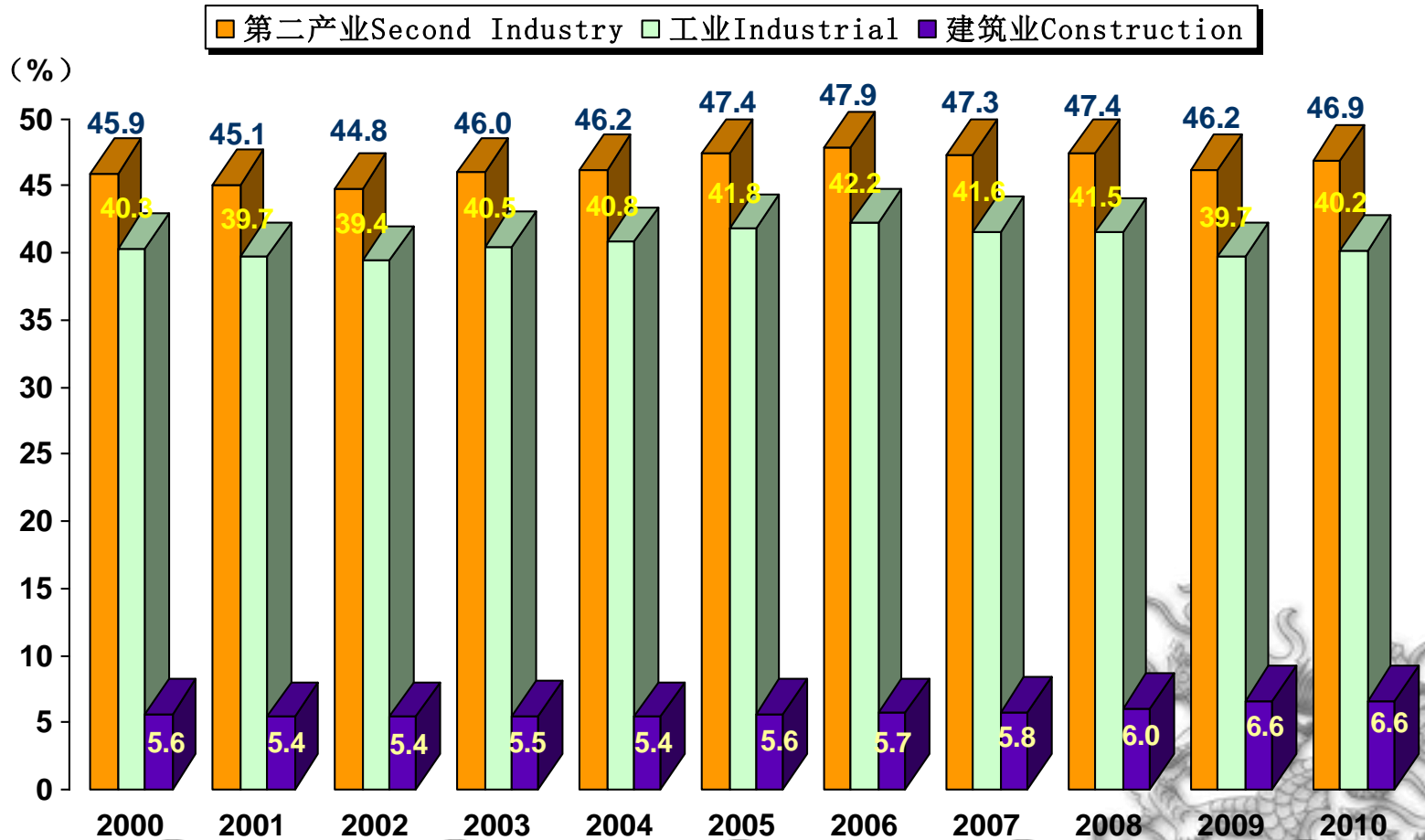
1995-2010年中国GDP的构成

1995-2010: Percentage of China GDP



2000-2010年第二产业、 工业、建筑业在GDP中的比重

2000-2010: Proportion of the Second Industry, Industrial, Construction in China
GDP

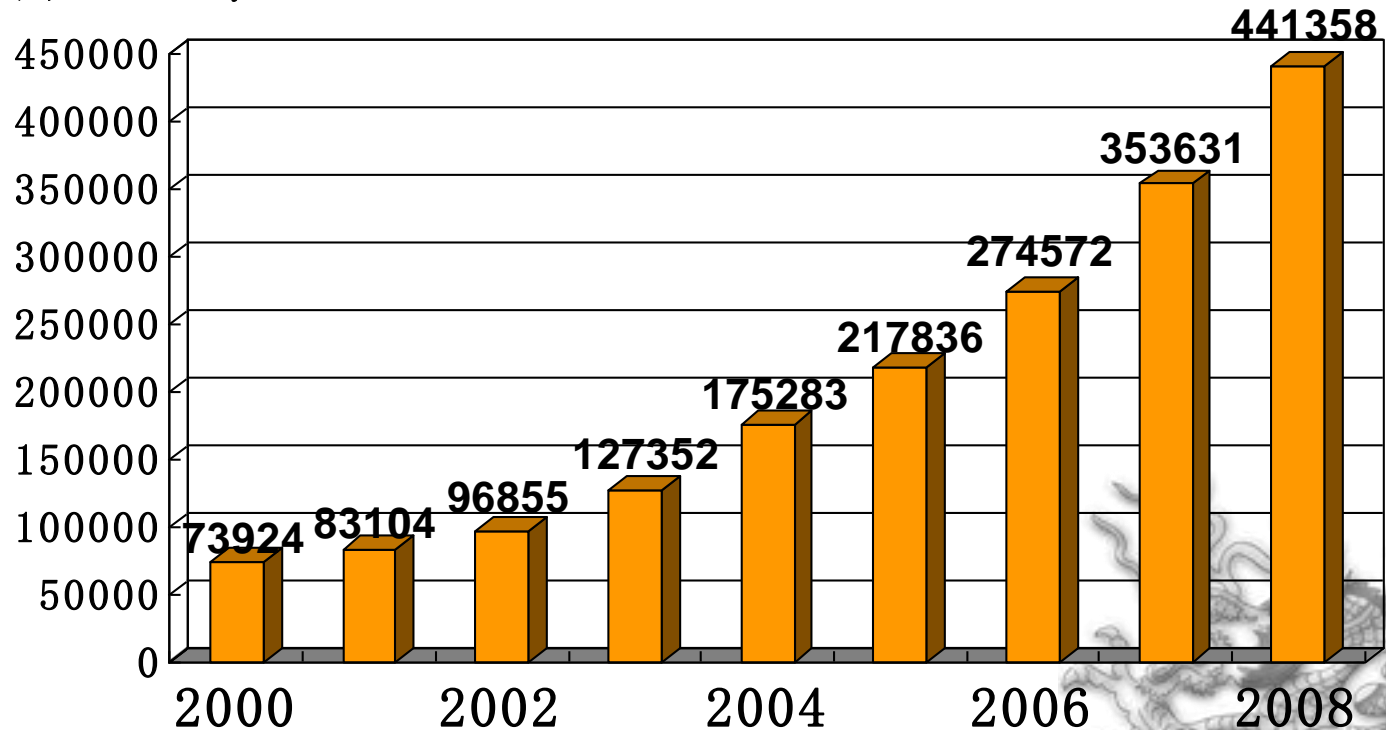


2000-2008年中国制造业总产值增长

2000-2008: China Manufacturing Industry Output Growth

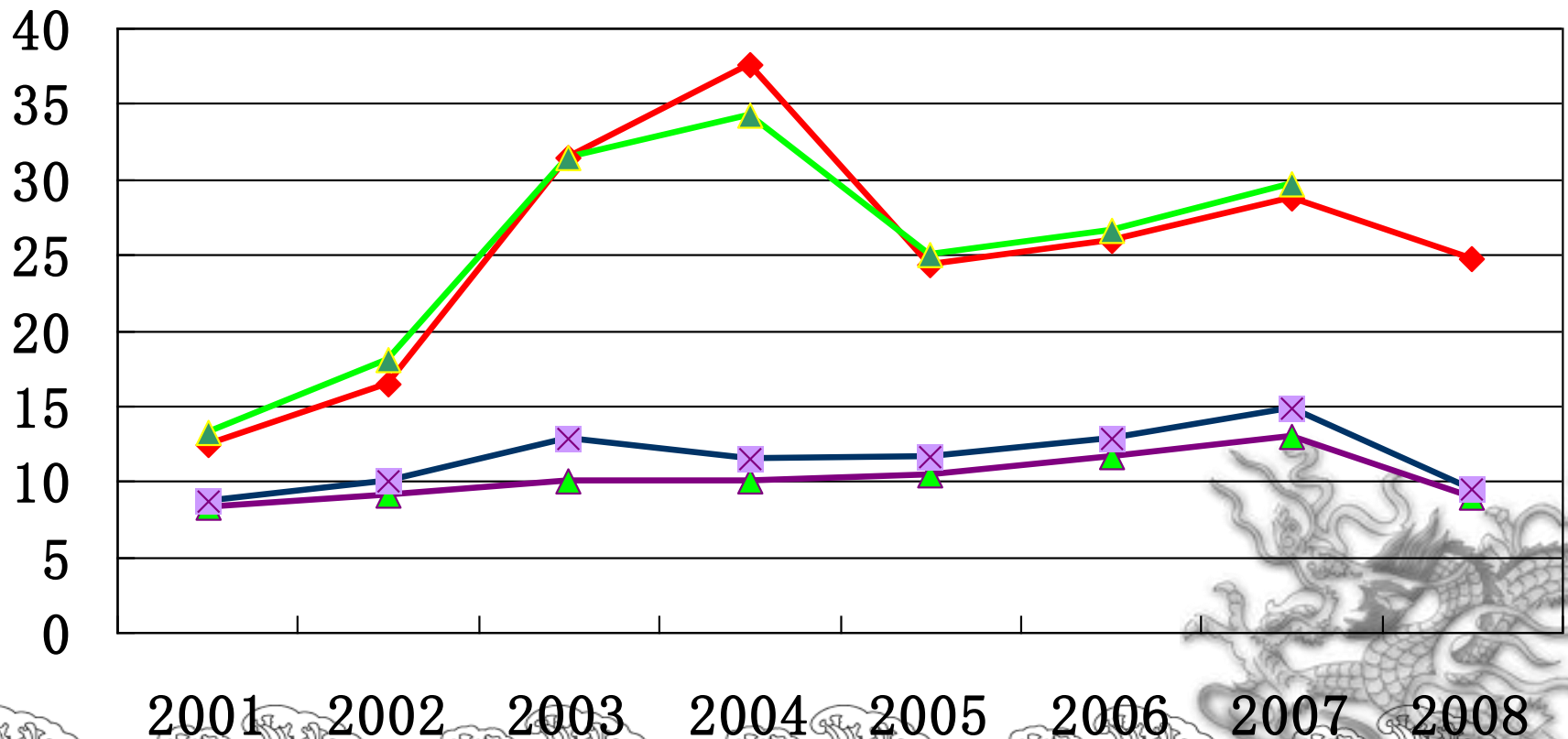
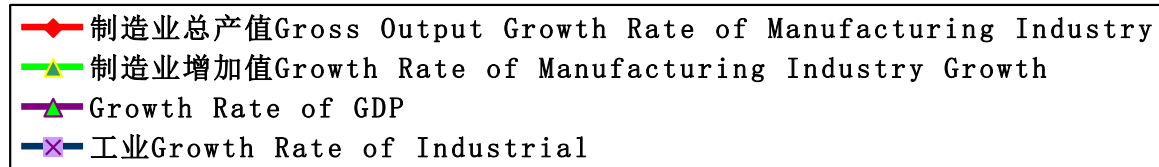
工业总产值 Industry Output

亿元 Billion yuan



近年来制造业、工业GDP增速

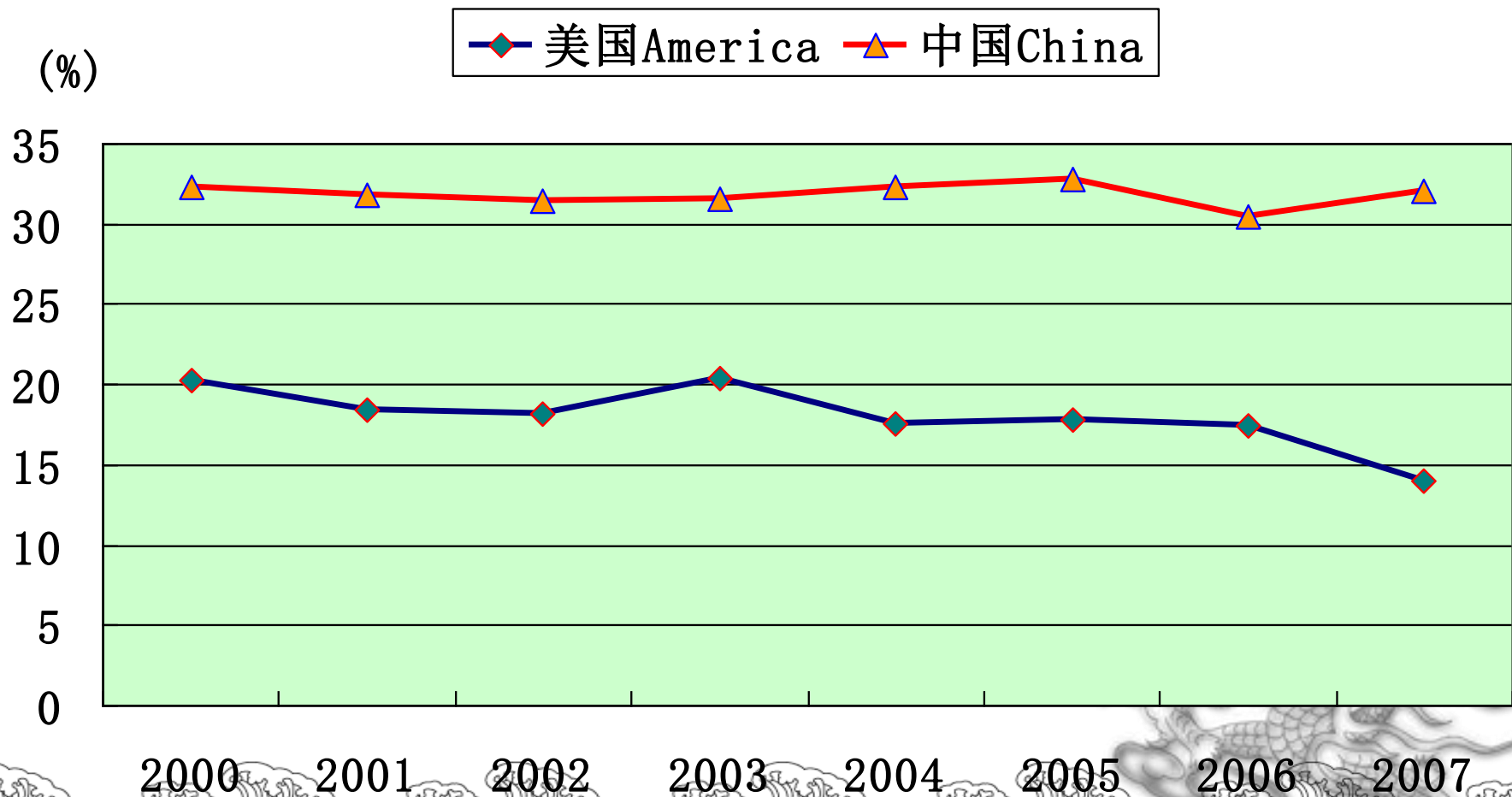
GDP Growth Rate in Recent Years of Manufacturing Industry, Industrial



2000-2007中美制造业增加值占GDP比重

2000-2007: China VS America

Proportion of Manufacturing Industry Growth in GDP



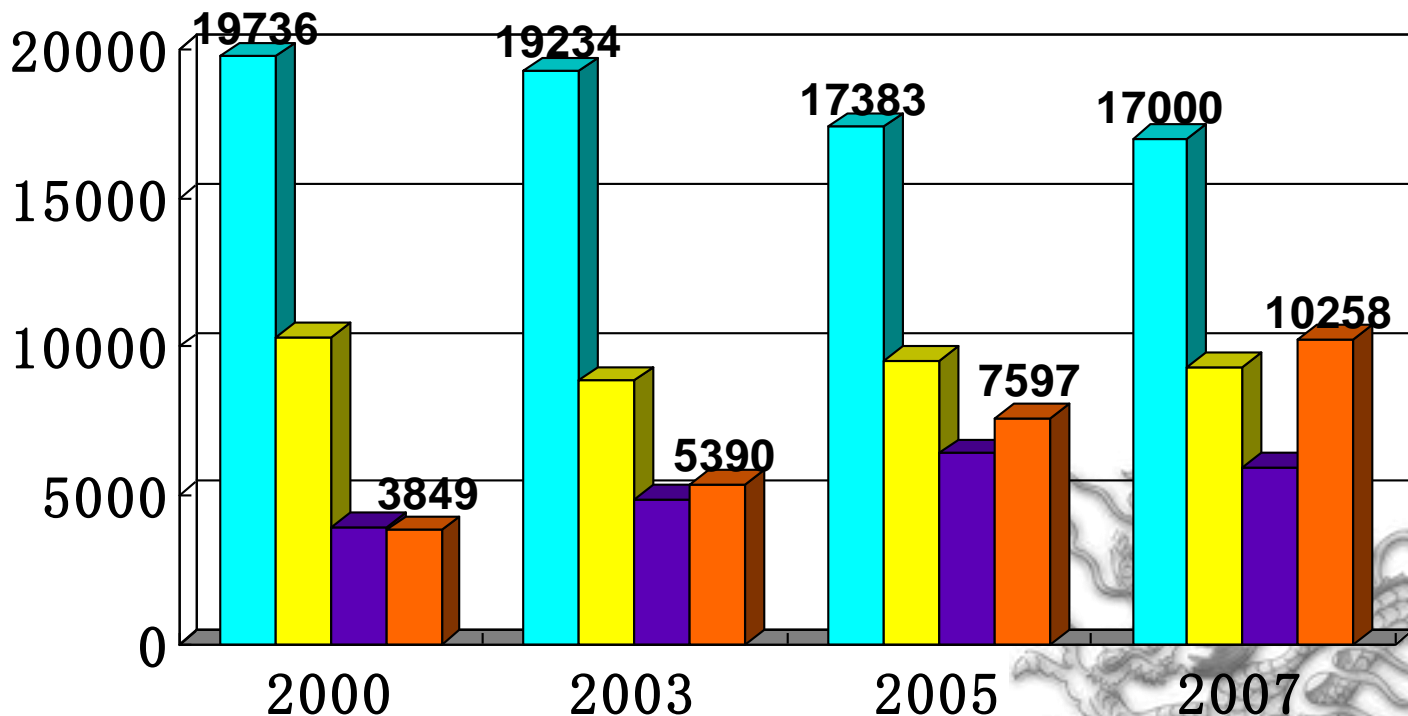
2000-2007年中美日德制造业增加值比较

2000-2007: Manufacturing Industry Growth

China VS America, Japan, Germany

■ 美国America ■ 日本Japan ■ 德国Germany ■ 中国China

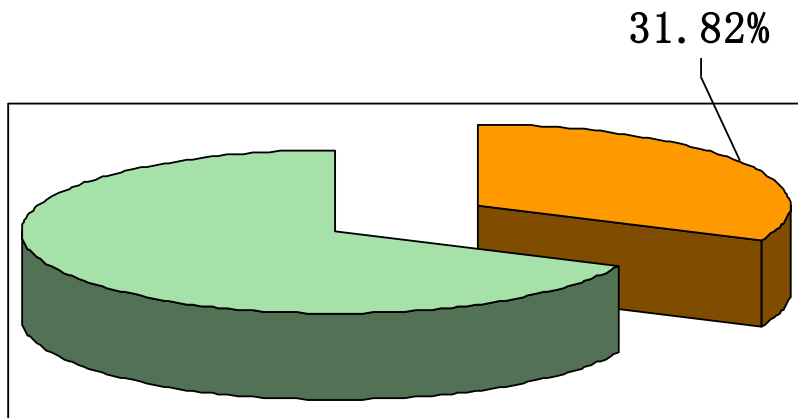
亿美元 US\$ Billion



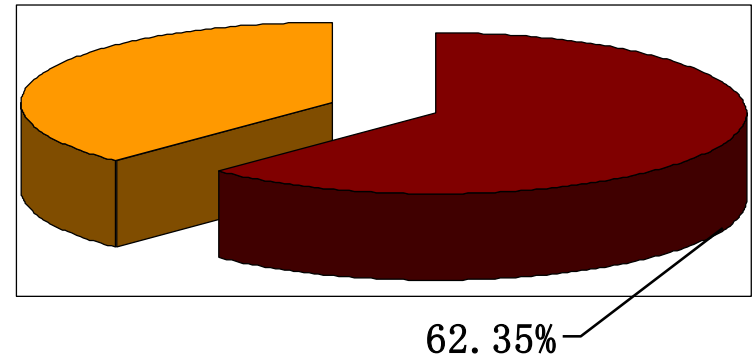
中国制造业的构成

Composition of Manufacturing Industry in China

■ 装备制造业Equipment Manufacturing Industry
■ 其他制造业Others

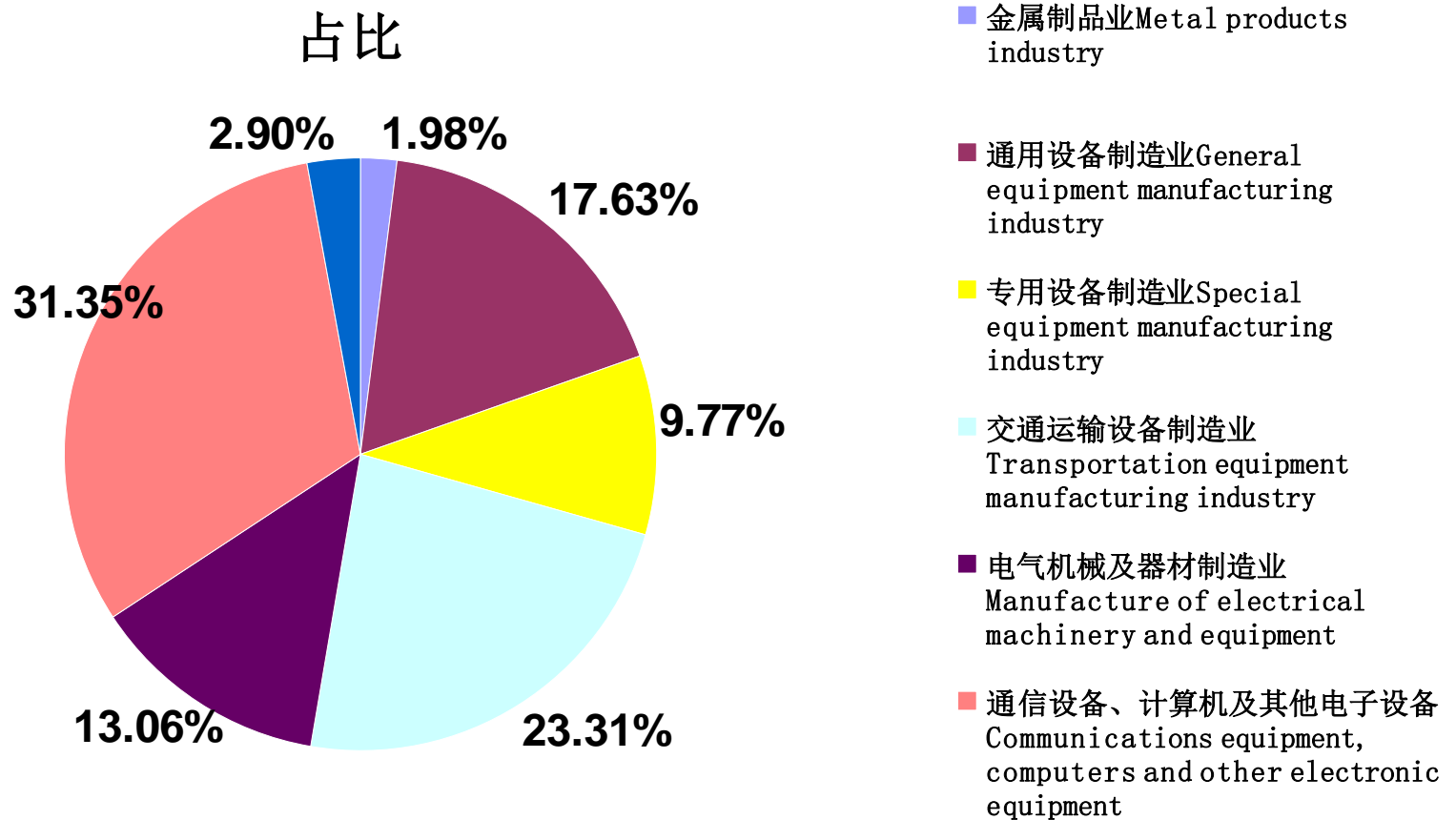


■ 机械工业Machinery Industry
■ 其他装备制造业Other Equipment Manufacturing Industry



装备制造业构成

Composition of Equipment Manufacturing Industry in China



2001-2008年

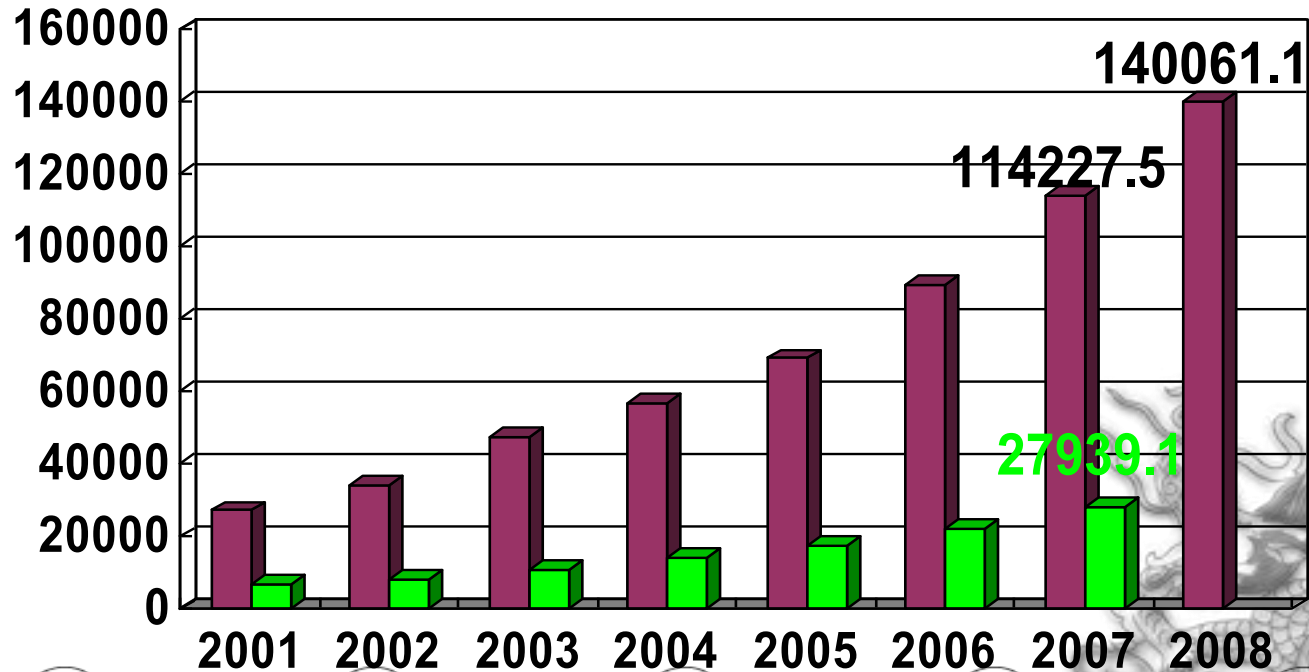
中国装备制造业总产值和增加值

2001-2008: Gross Output and Growth of Equipment Manufacturing Industry in

China

■ 总产值Gross Output ■ 增加值Growth

亿元Billion yuan



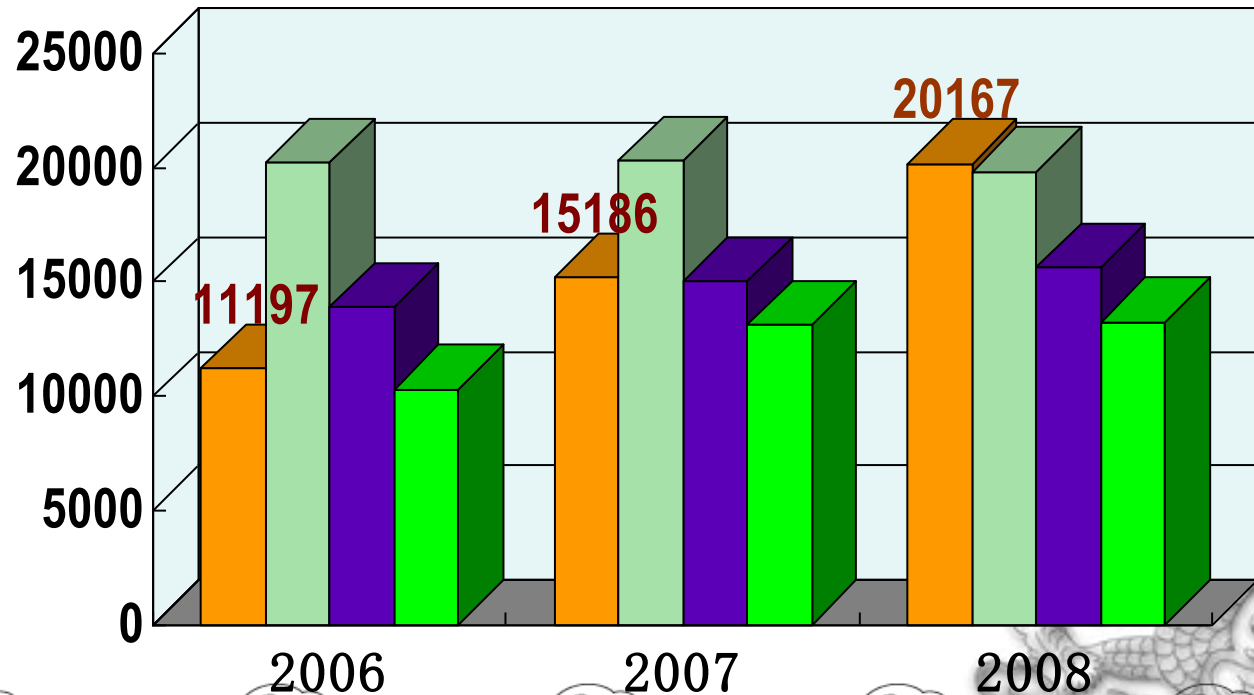
2006-2008年

中美日德四国装备制造业总产值

2006-2008: Gross Output of Equipment Manufacturing Industry
China VS America, Japan, Germany

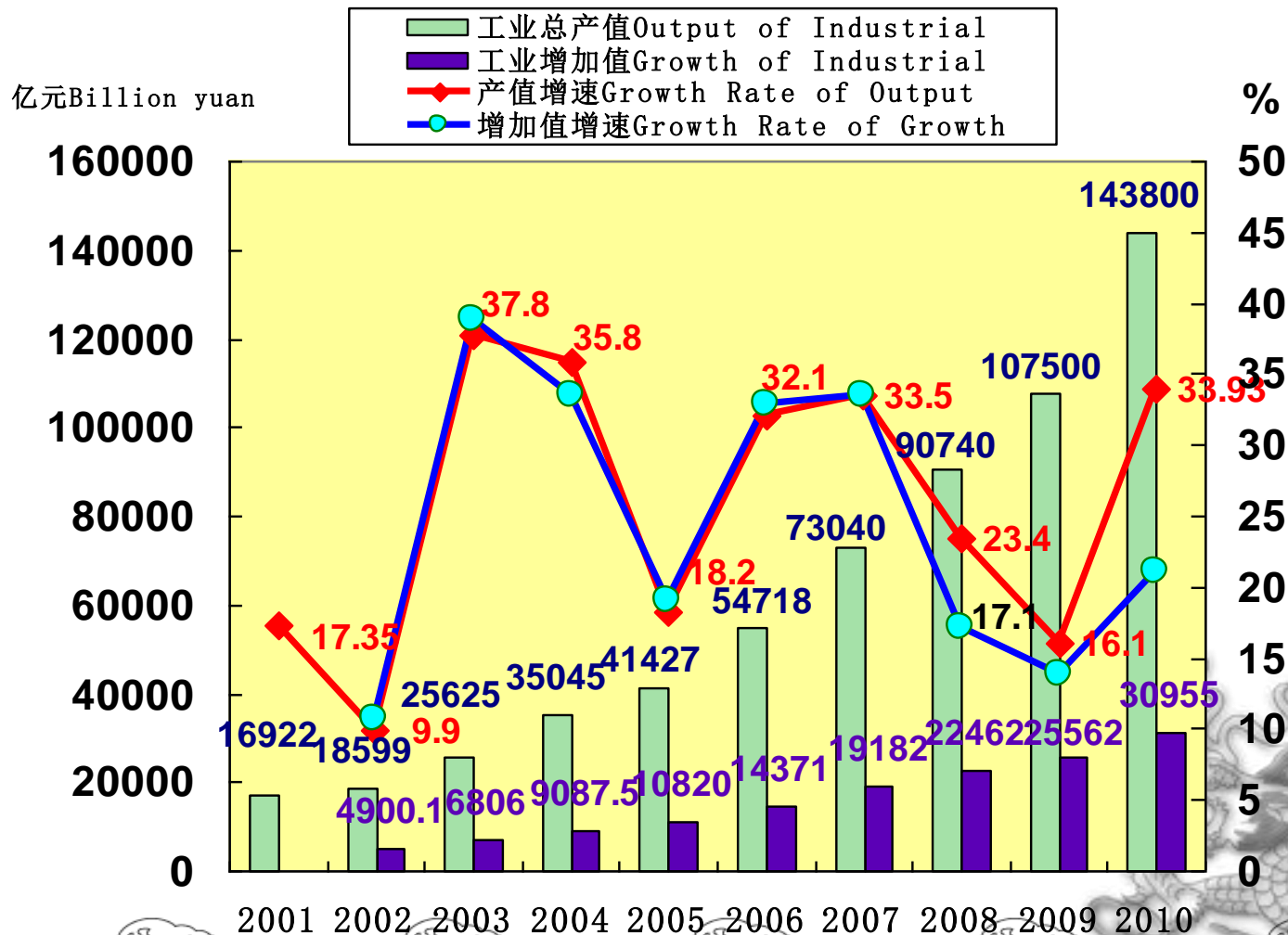
■ 中国China ■ 美国America ■ 日本Japan ■ 德国Germany

亿美元 US\$ Billion



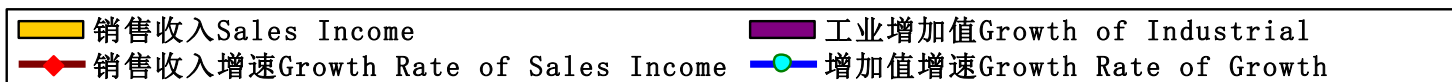
近十年中国机械工业产值、增加值及增速

Output, Growth and Growth Rate in Recently 10 Years of Machinery Industry in China

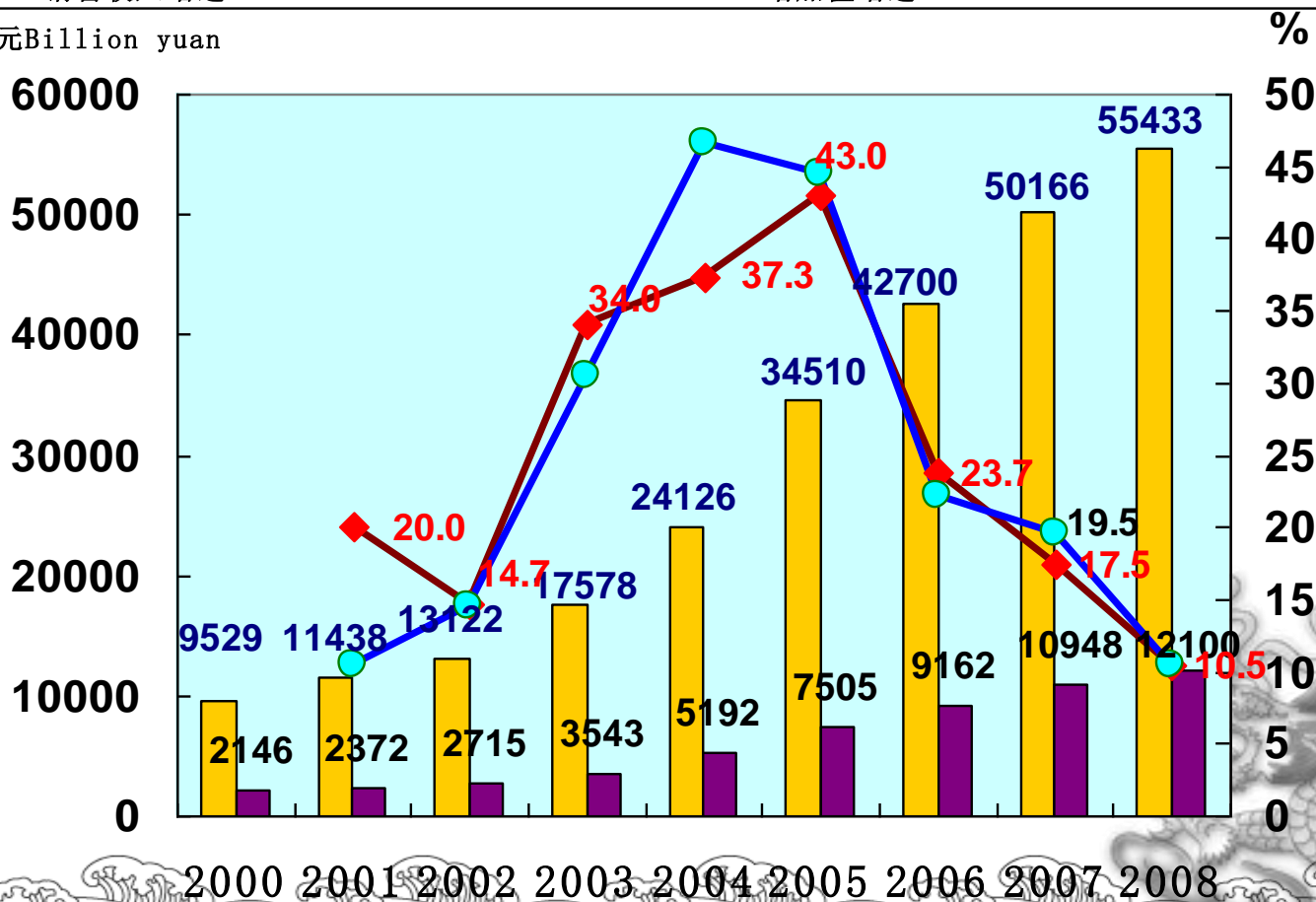


2000-2008年电子信息制造业 销售收入、工业增加值及增速

2000-2008: Sales Income, Industrial Growth and Growth Rate of Electric Information Manufacturing Industry in China



亿元 Billion yuan



中国制造业主要产品产量 (部分)

Manufacturing Industry Output of Main Products in China(non-complete)

产品名称 Product	2008年产量 Output 2008	2009年产量 Output 2009	2010年产量 Output 2010
粗钢 (万吨) Crude steel (million tons)	50305.8	57218	62696
彩电 (万台) Color TV (million)	9187.1	9898.8	11830.0
微机 (万台) Microcomputer (million)	15853.7	18215.1	24584.5
程控交换机 (万线) SPC (million line)	4584.0	4152.5	3133.3
手机 (万台) Mobile phone (million)	55945.1	68193.4	99827.4
汽车 (万辆) Vehicles (million)	930.6	1379.5	1827.0
发电设备 (万千瓦) Power generation equipment (million kw)	13314	11994	12264.2
金切机床 (万台) Metal cutting machine tools (million)	61	58	75.6
大中型拖拉机 (万台) Large and medium-sized tractor (million)	28.4	37.1	38.3

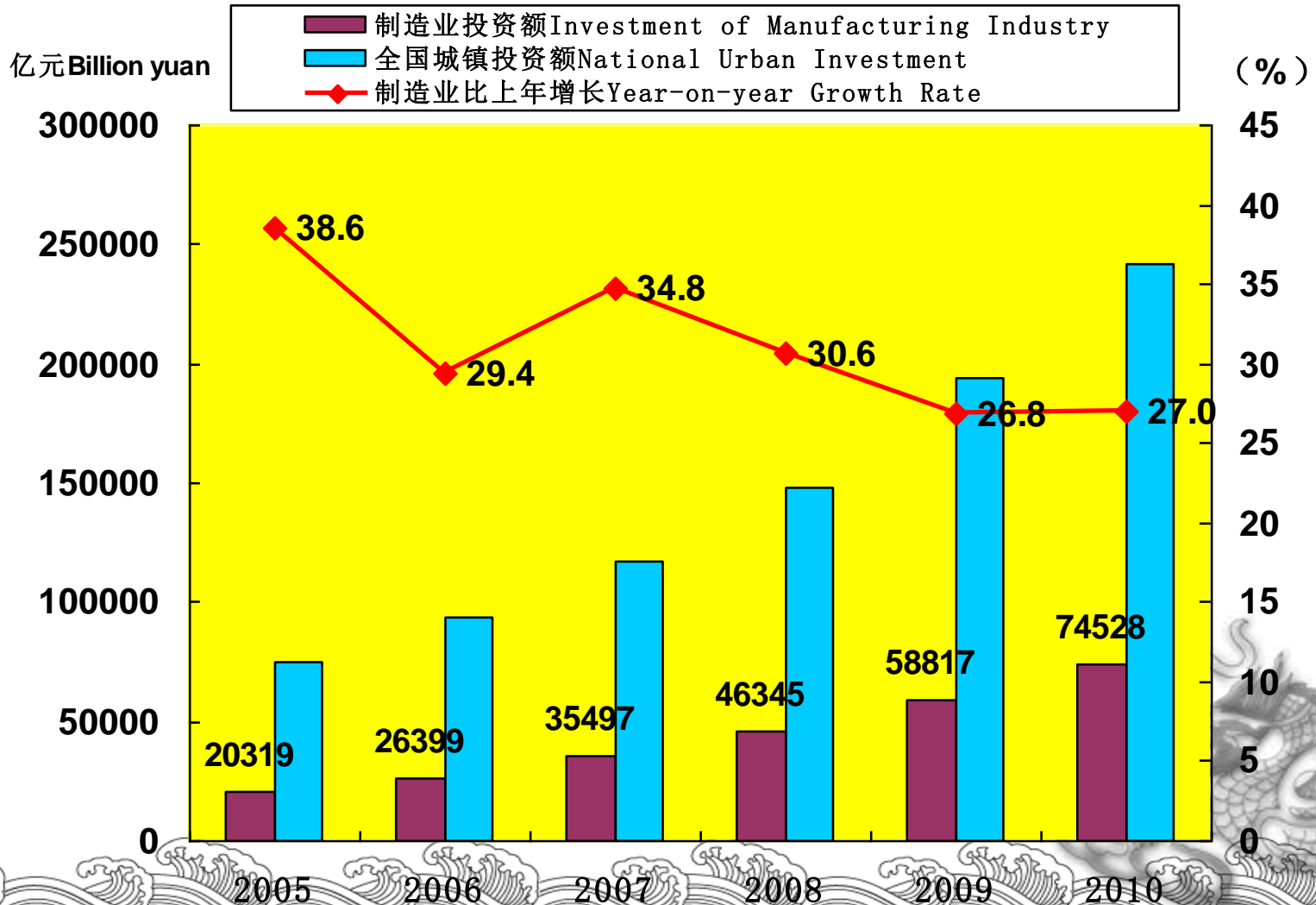
2000-2008年
中国制造业外商直接投资

2000-2008: Foreign Direct Investment in Manufacturing Industry in
China

年份 Year	外商直接投资合同项目 (个) Number of foreign direct investment contract project	实际投资金额 Actual investment amount (亿美元) (US \$ million)
2000	15988	258.4
2001	19106	309.1
2002	24930	368.0
2003	29281	369.4
2004	30386	430.2
2005	28928	424.5
2006	24790	400.8
2007	19193	408.6
2008	11568	498.9

2005~2010年制造业固定资产投资

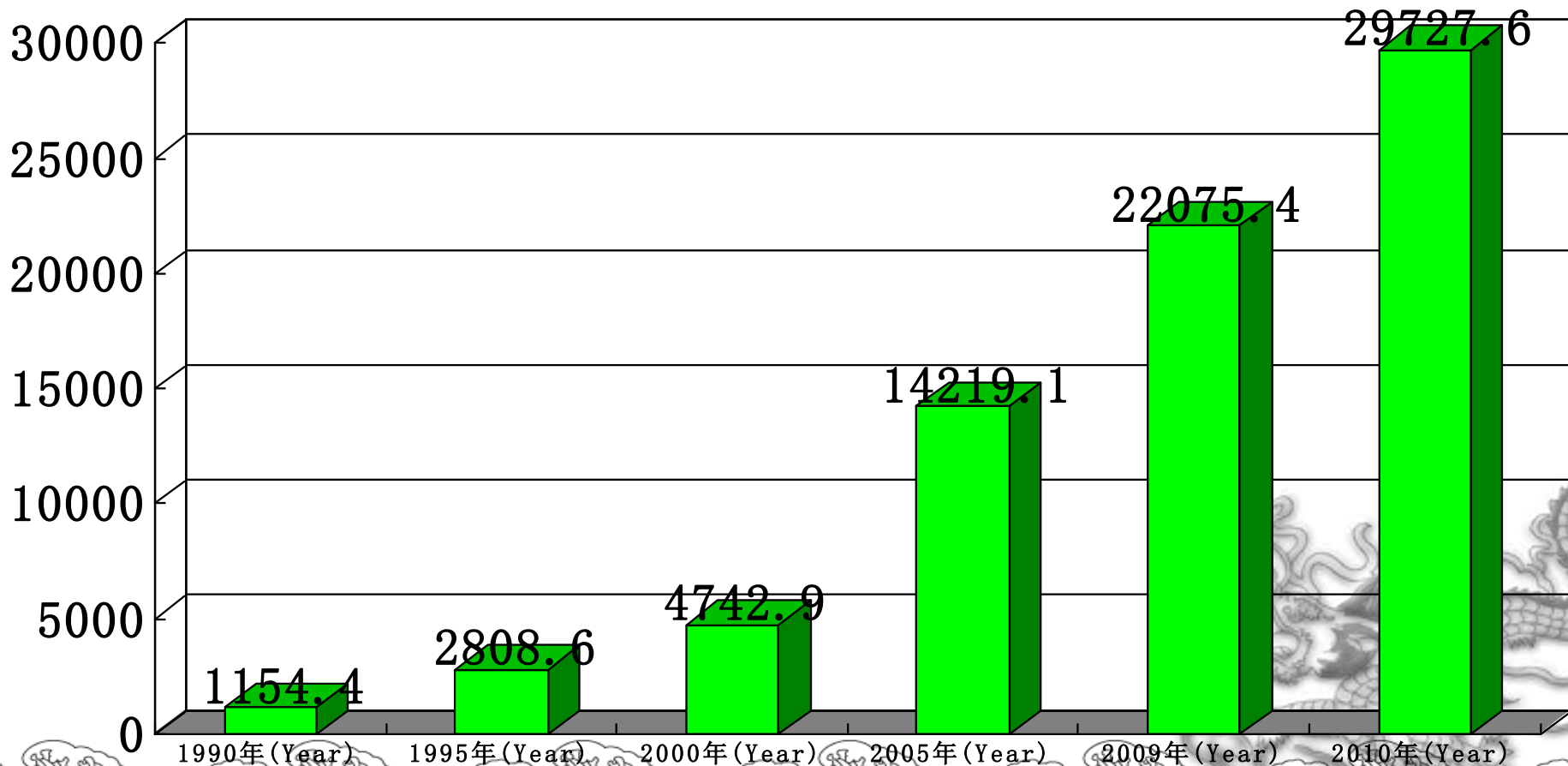
2005-2010: Investment in Fixed Assets of Manufacturing Industry



近二十年中国进出口贸易的变化

Changes of Import and Export Trade in China During Recent 20 Years

■ 货物进出口总额 (亿美元) Amount of Import and Export Trade (US \$ Billion)



中国制造业的转型升级

Upgrade of Manufacturing Industry in China

要素投入驱动
Input Drive

创新驱动
Innovation Drive

传统增长方式
Traditional Growth

高消耗 High consumption
高污染 high pollution
量的扩张 quantity expansion

绿色低碳
Green and low carbon
智能制造
Intelligent manufacturing
服务型制造
Service oriented manufacturing

出口拉动
Export Drive

内需拉动
Domestic Demand Drive

未来十年的中国制造业

The Next 10 Years of Manufacturing Industry in China

- ◆ 中国制造业在未来的十年内仍然是国民经济增长的重要动力，仍将保持一定速度的增长。
- ◆ In the next 10 years, manufacturing industry in China still will be the important impetus to the growth of national economy, and will maintain a certain growth.
- ◆ 中国制造业就总量和规模已居世界前列，转型升级、结构调整将是未来十年中国制造业的主旋律。
- ◆ Gross output and dimensions of Chinese manufacturing Industry have been in the forefront of the world. The transformation, upgrading and structural adjustment will be the main thematic of manufacturing industry in the next ten years.
- ◆ 绿色制造、智能制造、融合制造、服务型制造、超常态制造将成为中国制造业的发展方向。
- ◆ Green manufacturing, intelligent manufacturing, intergration of manufacturing, service-oriented manufacturing, super normal manufacturing will be the development direction of Chinese manufacturing industry.

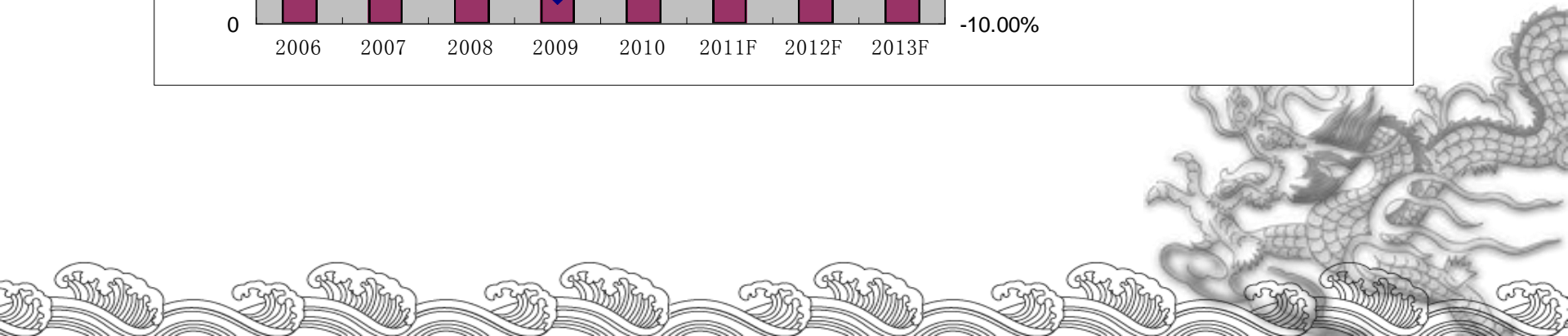
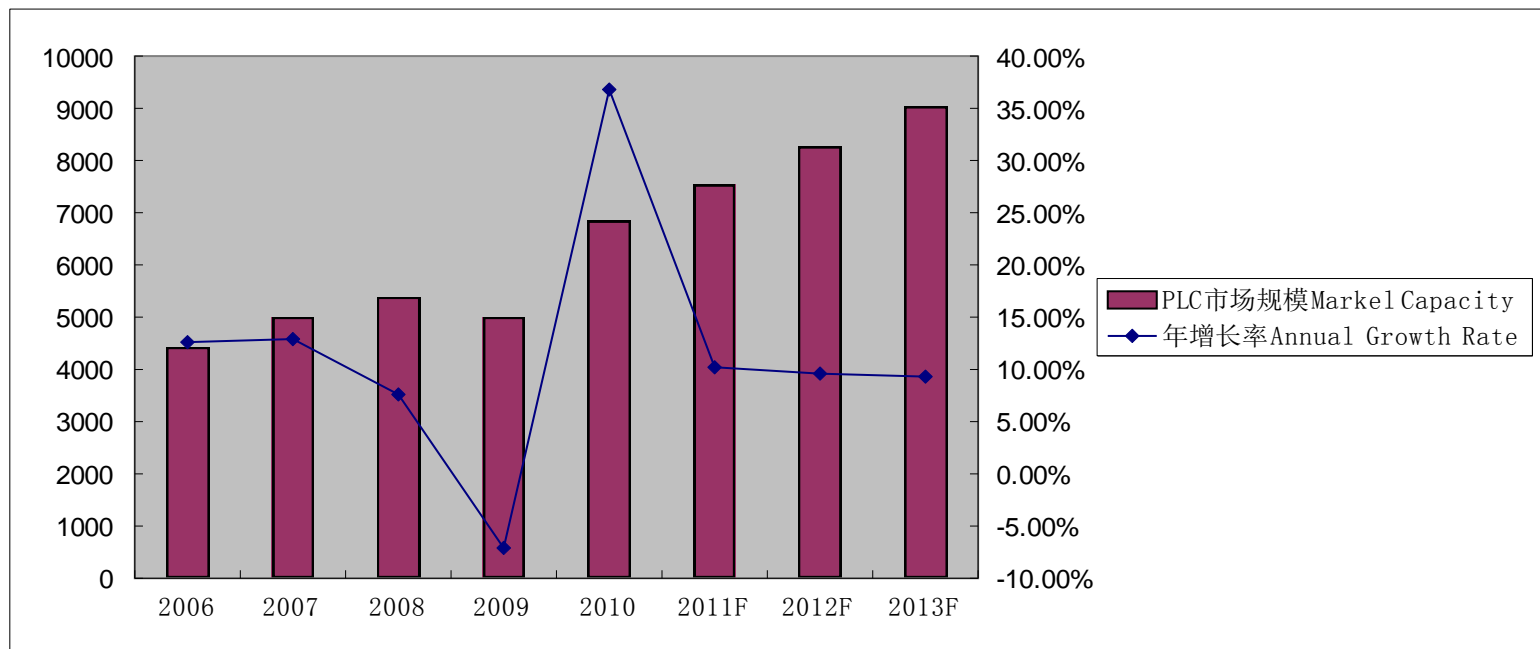


PLC中国市场情况

Market of PLC in China

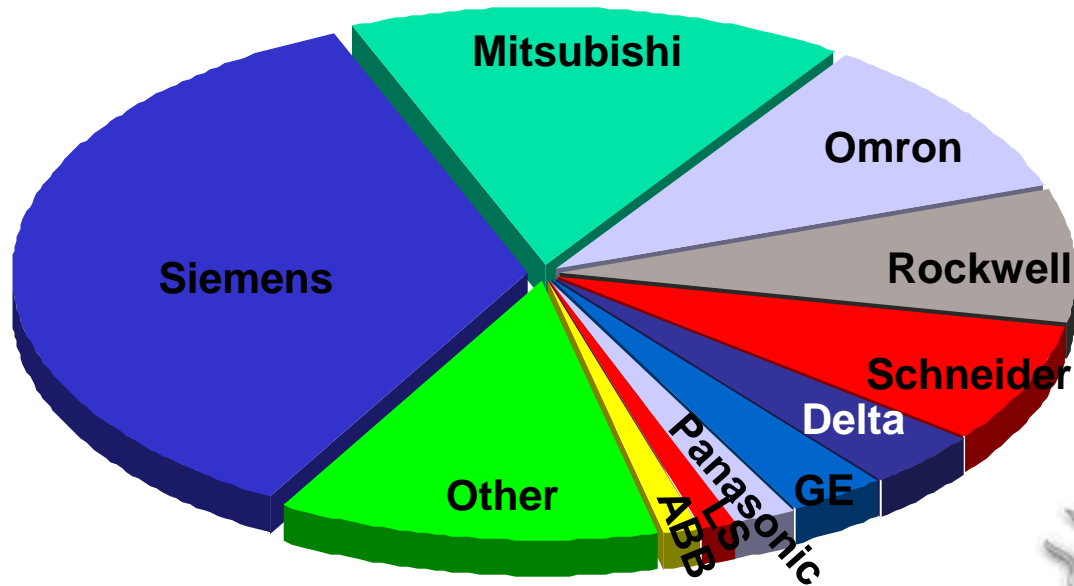
中国PLC市场增长预期 Market Growth Expectation of PLC in China

单位:百万人民币 (Unit: RMB Millon)



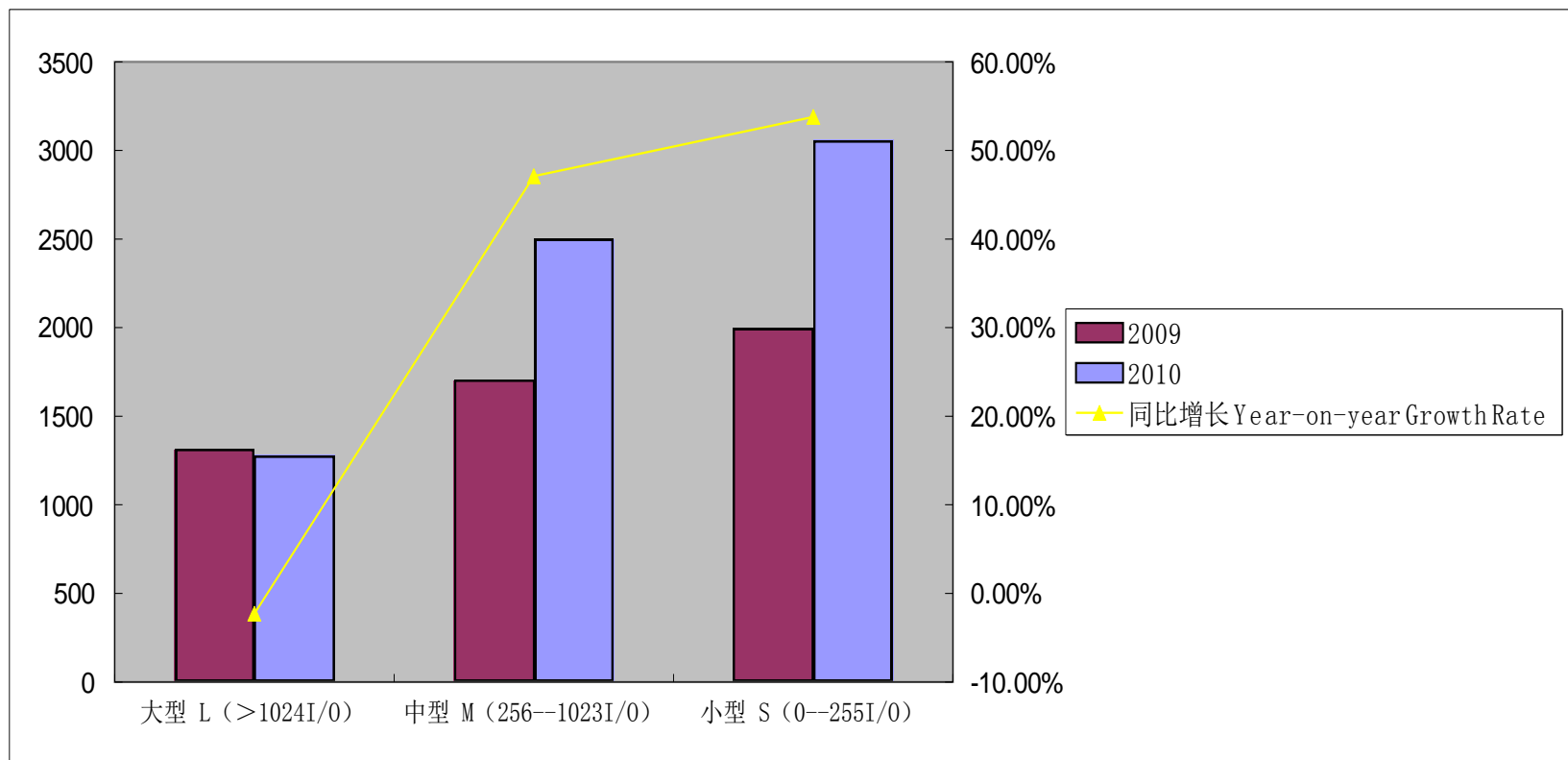
中国PLC市场份额

Market Share of PLC in China



2010年中国PLC不同I/O段市场规模 Market Scale of Different I/O Segment in 2010 (China)

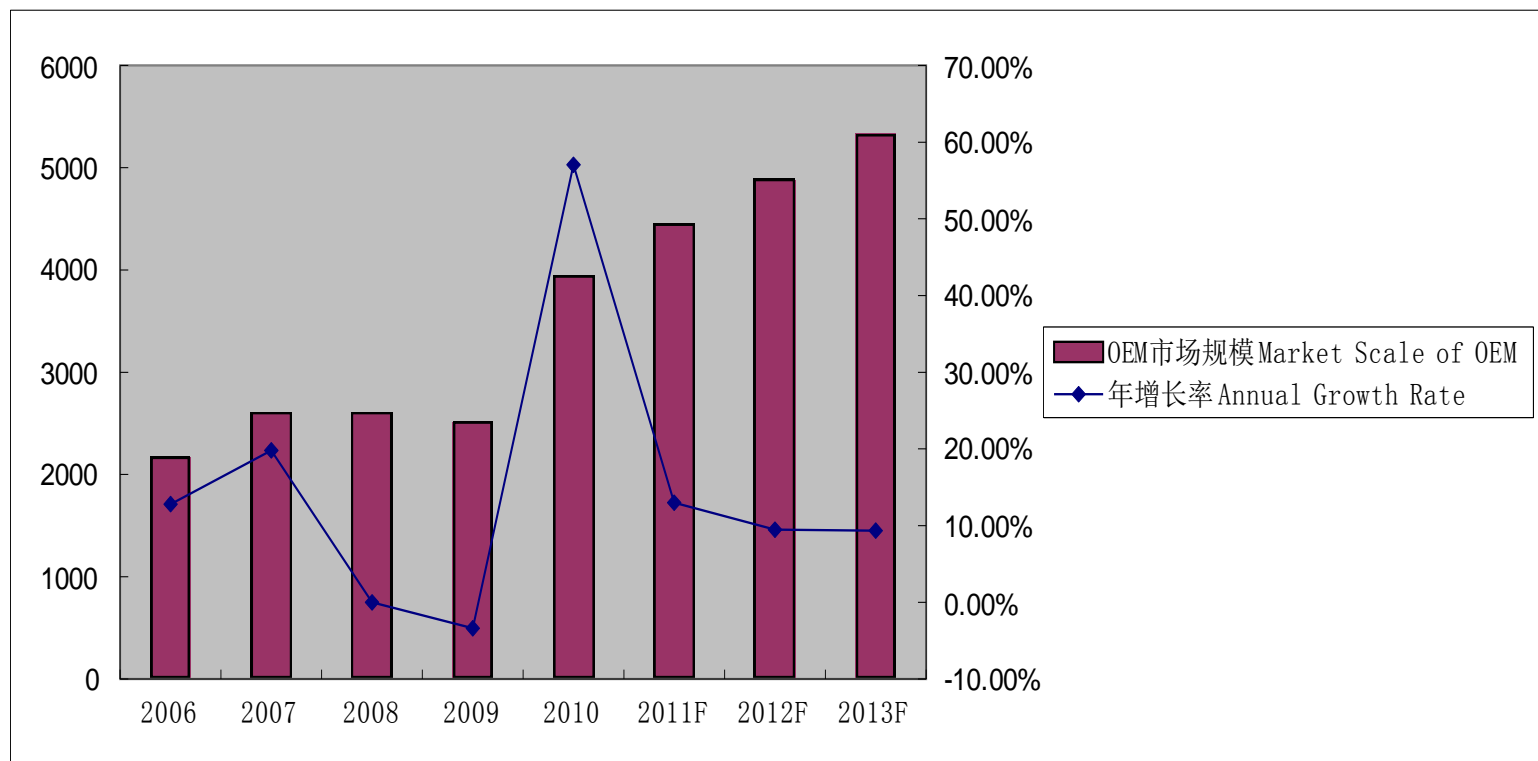
单位：百万人民币（Unit: RMB Million）



中国PLC市场OEM增长预期

Growth Expectation of OEM in PLC Market in China

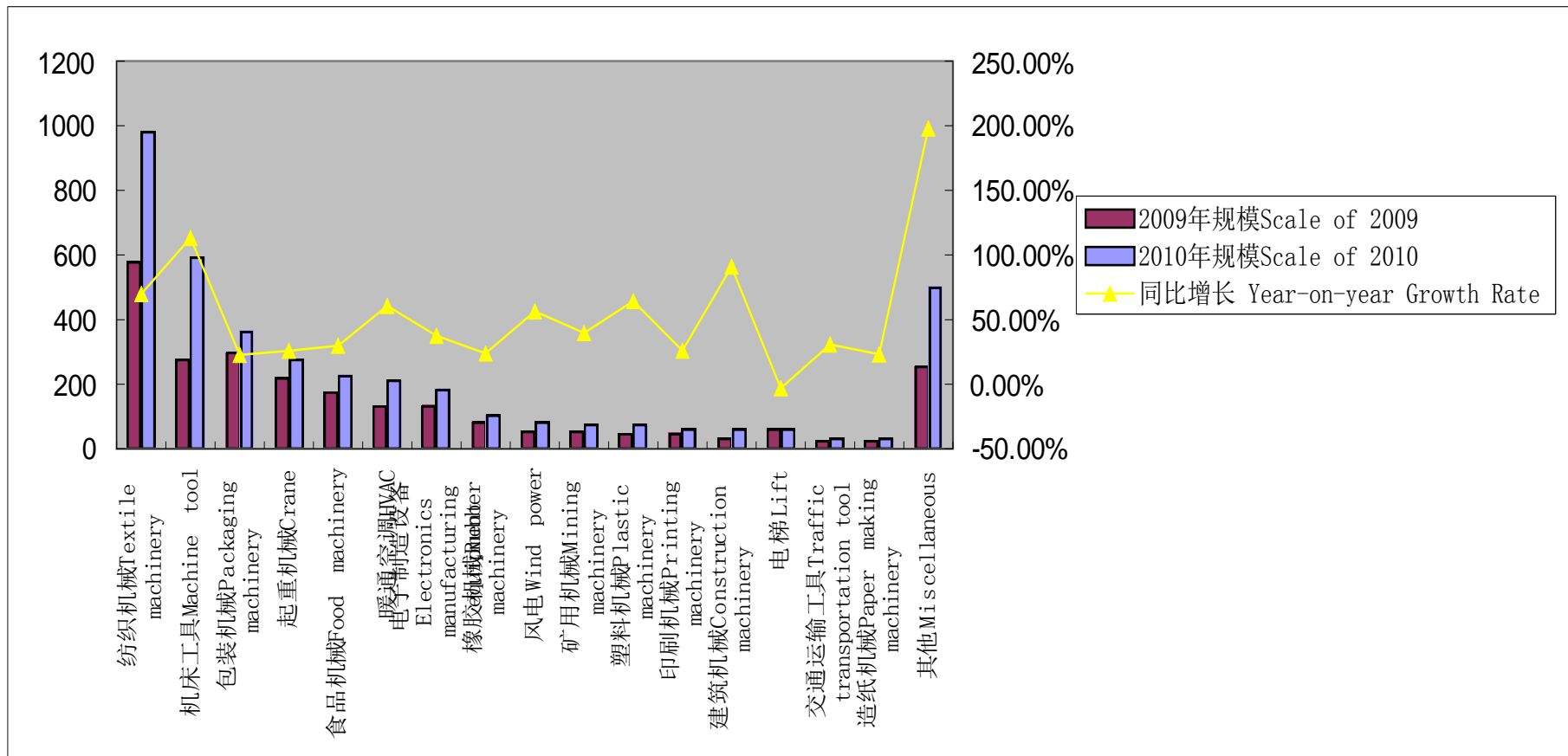
单位：百万人民币（Unit: RMB Million）



2010年中国OEM市场PLC规模及状况

Scale and Status of PLC in OEM Market of China (2010)

单位：百万人民币 (Unit: RMB Million)



自主研发PLC的过程

Independent R&D Process of PLC

研发产品 R&D of Products

* 先委托试制

commissioned trial
firstly

研发前期的准备过程
Preparation Process of
R&D

1. 调研 Research & Investigation

召开由行业专家参加的“未来PLC的研讨会”

Hold "The Future PLC Seminar"

2. 对比 Contrast

对比各品牌PLC参数
寻最佳方案

Compare PLC parameters, Seek Optimal Scheme

3. 确定 Determine

使用量广的32—40点I/O

Widely Used
32-40 I/O

4. 开始 Start

创建自主知识产权的PLC

Creat PLC of Independent Intellectual Property Rights

性能测试并修正

Performance test and correction

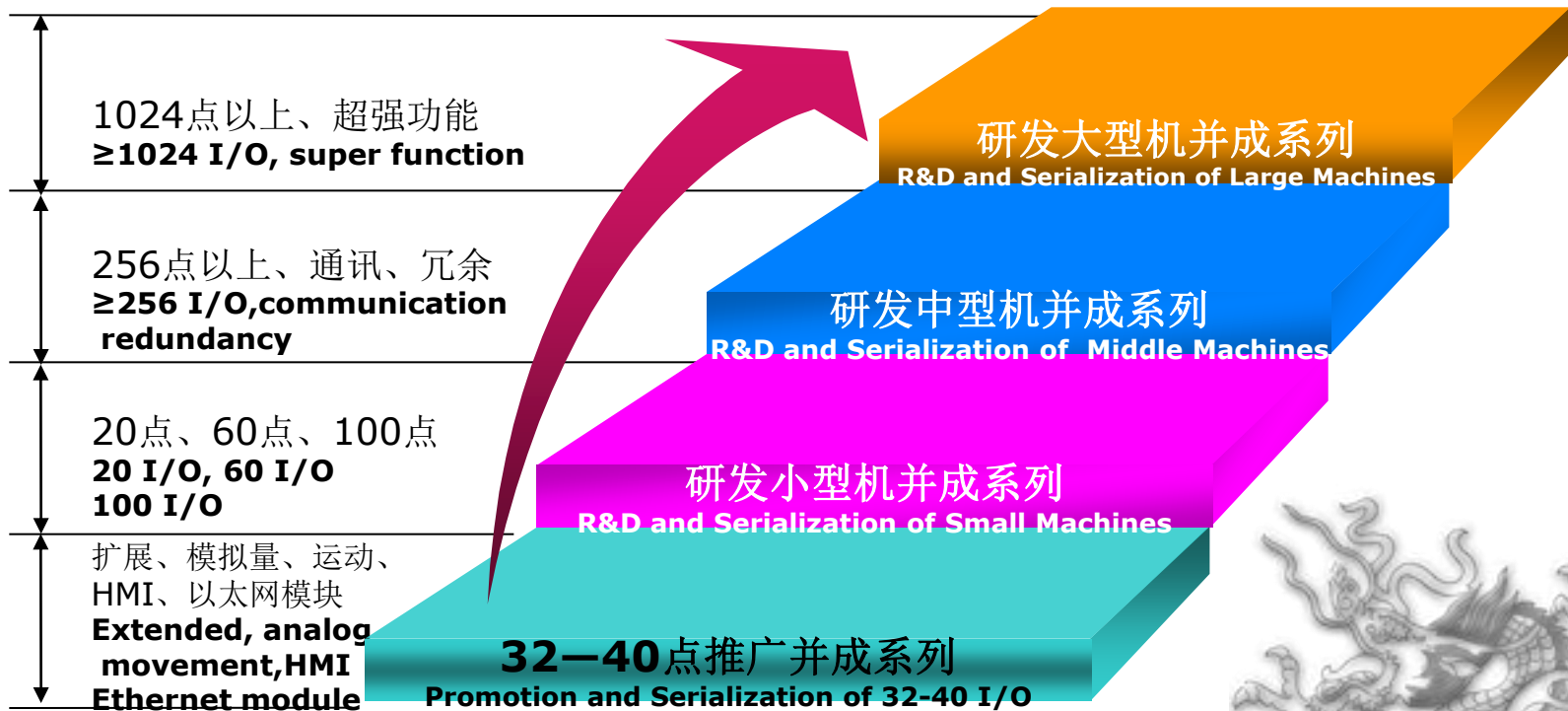
小批量生产并试用

Small batch production and trial



市场开拓和下一步打算

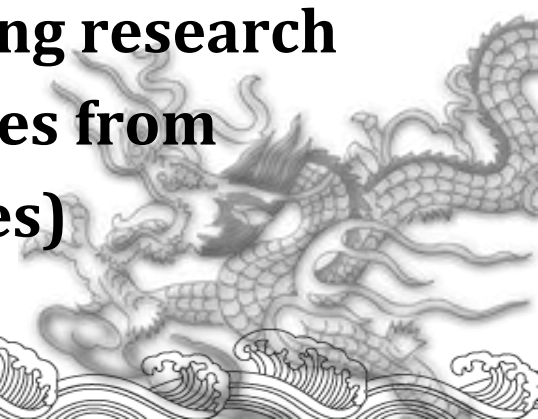
Market Development and the Next Plan



产品研发与校企合作

Cooperation About Product R&D Between University and Enterprise

- ◆ 以企业为主建立研发实验室
- ◆ **Establish R&D laboratory in the enterprise**
- ◆ 与研发机构（高校）合作可以加快产品研发
- ◆ **Cooperation with research Institutes(including Universities) can accelerate product R&D process**
- ◆ 企业可以有效借助研发机构（高校）的科研设施设备、人员等宝贵资源，实现产学研合作
- ◆ **Realize cooperation between R&B by using research facilities, equipment and human resources from research institutes(including universities)**

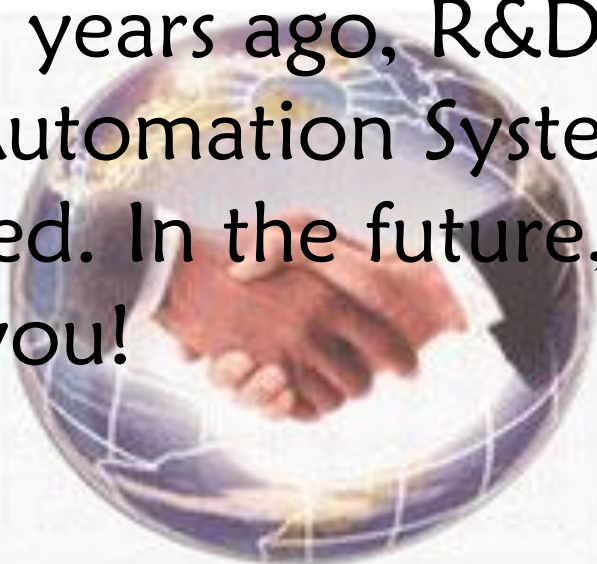


加强合作与交流

Enhance Cooperation and Communication

上海龙诚自动化系统有限公司是成立只有3年的小型民营企业，研发也刚刚起步。今后还要多向各位学习、请教！

As a small private enterprise which was established 3 years ago, R&D of Shanghai Longcheng Automation System Co., Ltd. has just started. In the future, we should ask a lot of you!



谢谢！

Thank you for your attention!

