

January 2019

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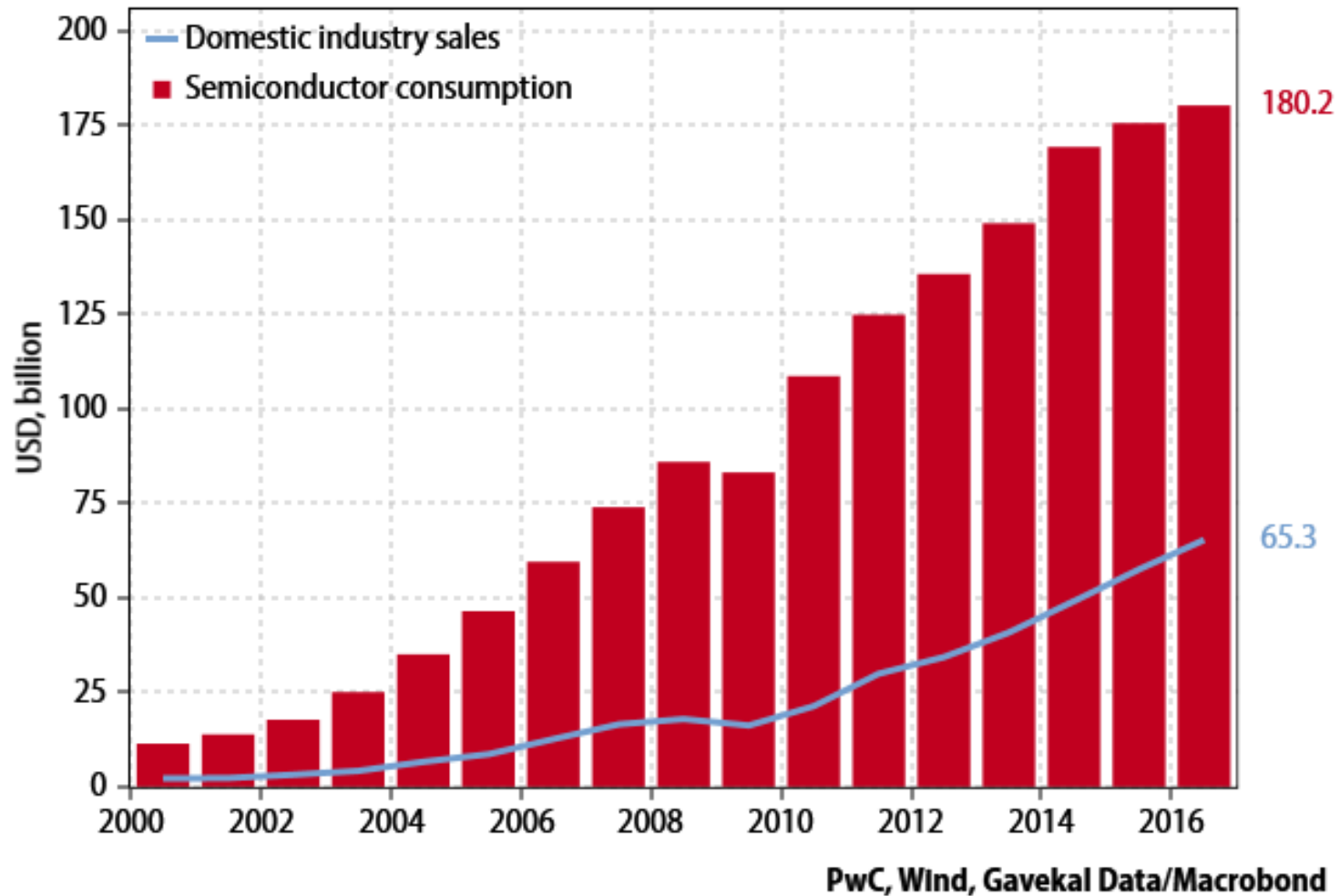
# Semiconductors and Made in China 2025

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Dan Wang

# The semiconductor gap

## Domestic Chinese companies supply mostly low-end technologies



# Made in China 2025: roadmap for integrated circuits

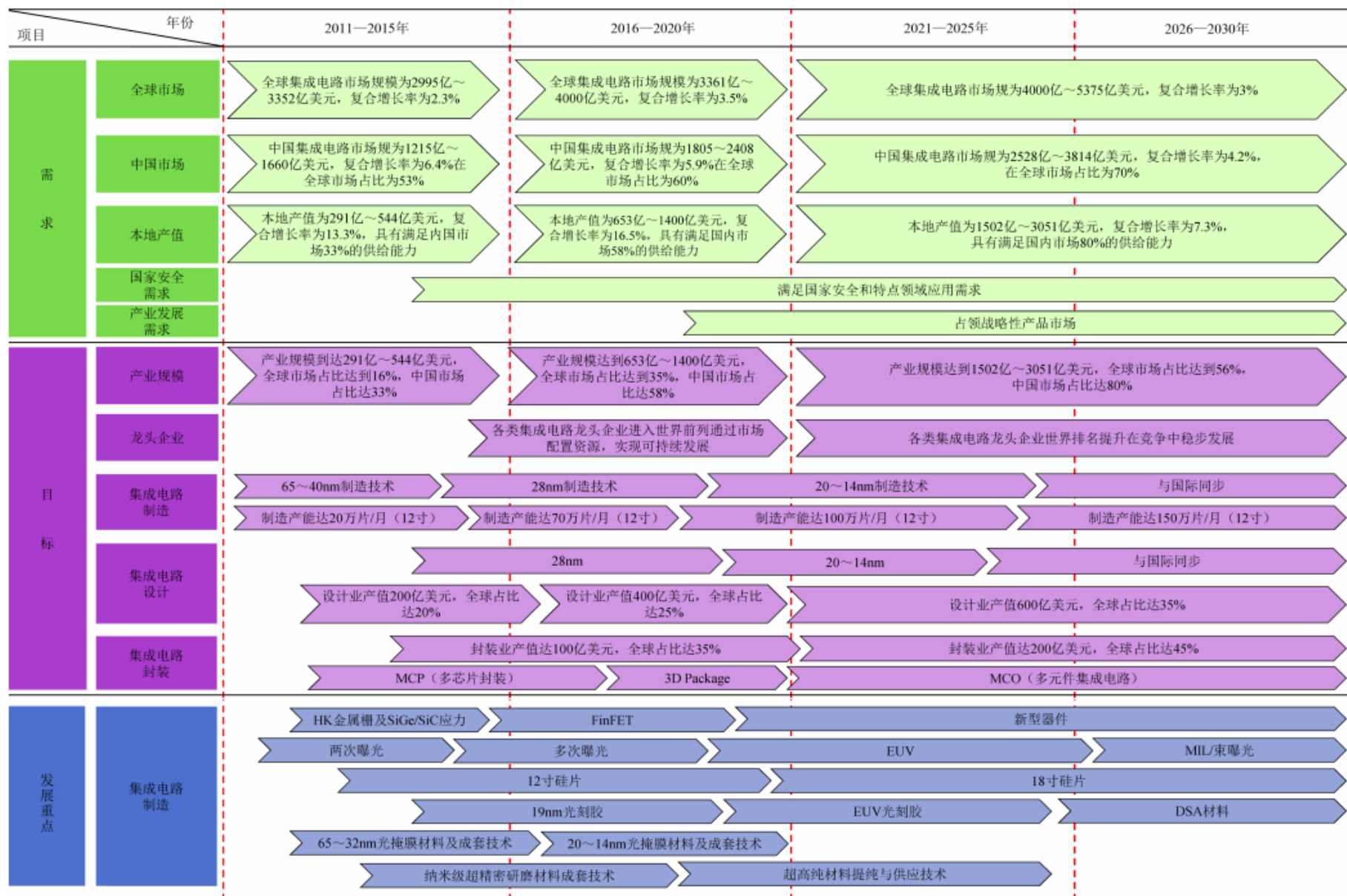
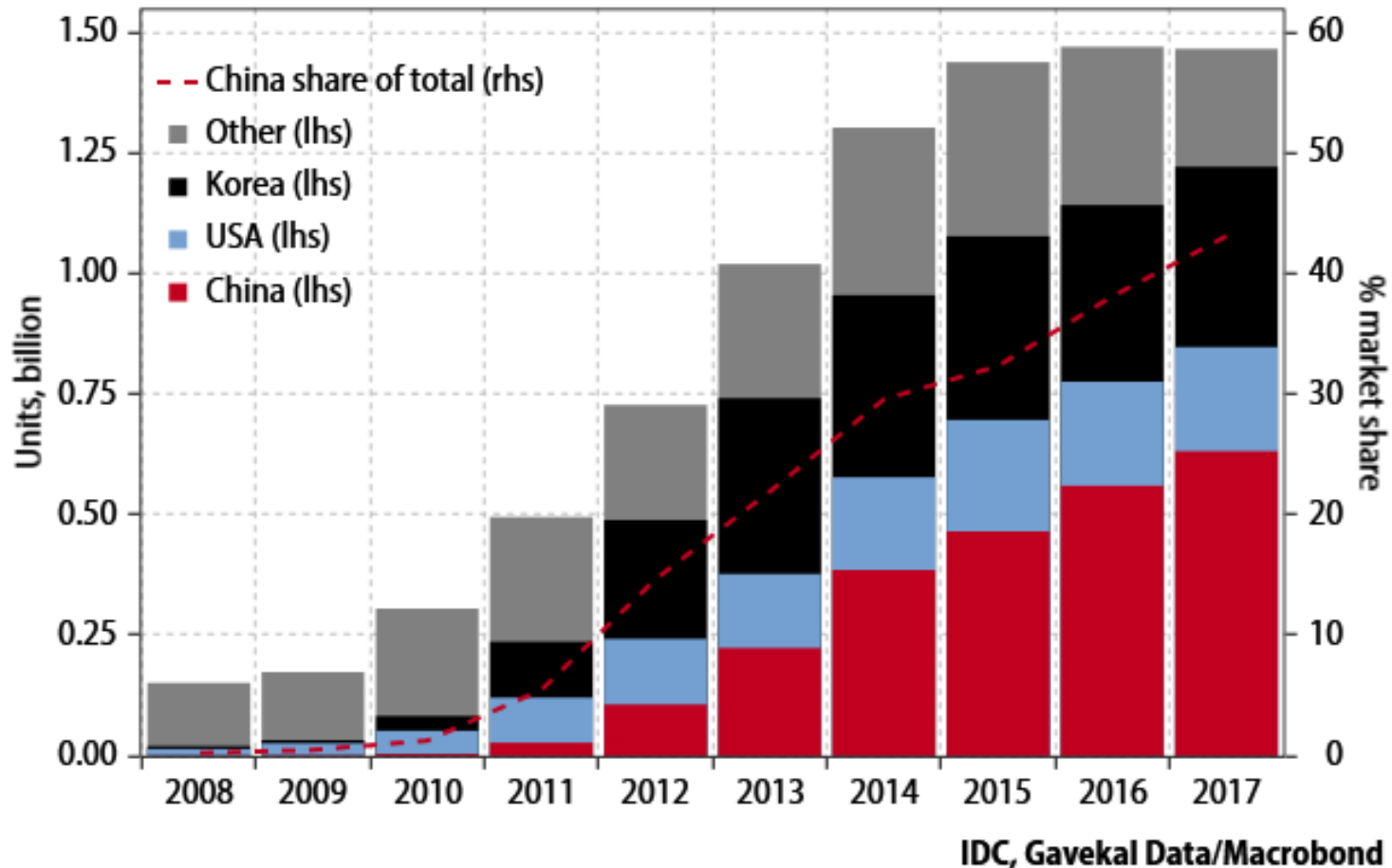


图1-1 集成电路及专用设备技术路线图

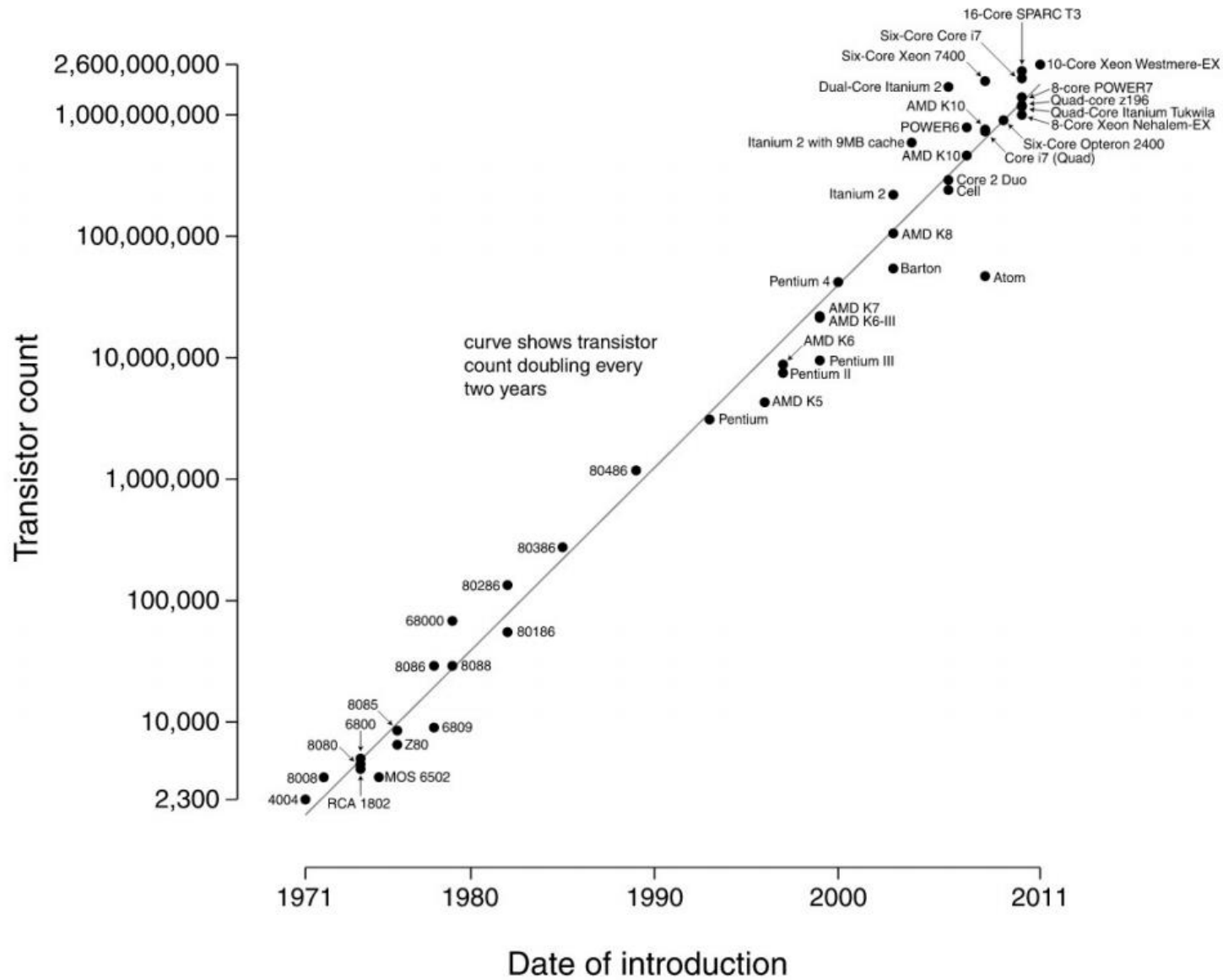
# China is now the center of electronics production and consumption

## Chinese phonemakers now have significant global market share

Global smartphone shipments, by country of brand headquarters



# Moore's Law is slowing down and getting more expensive



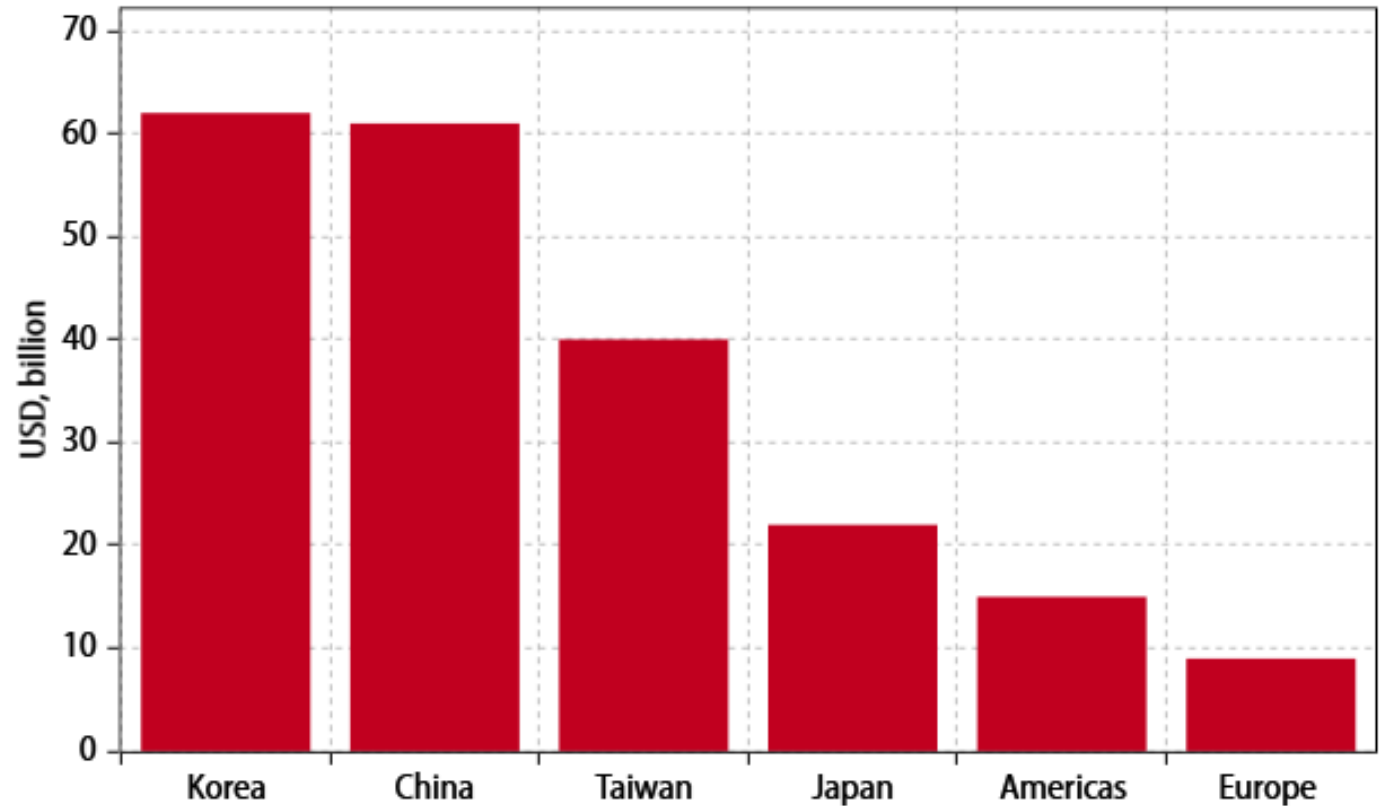
# Smaller may not always be better



# Big spender

## China is spending big on semiconductor equipment for new fabs

Expected semiconductor equipment spending, 2017-20



World Fab Forecast, SEMI, Gavekal Data/Macrobond

# The risk to my cautiously optimistic view: export controls



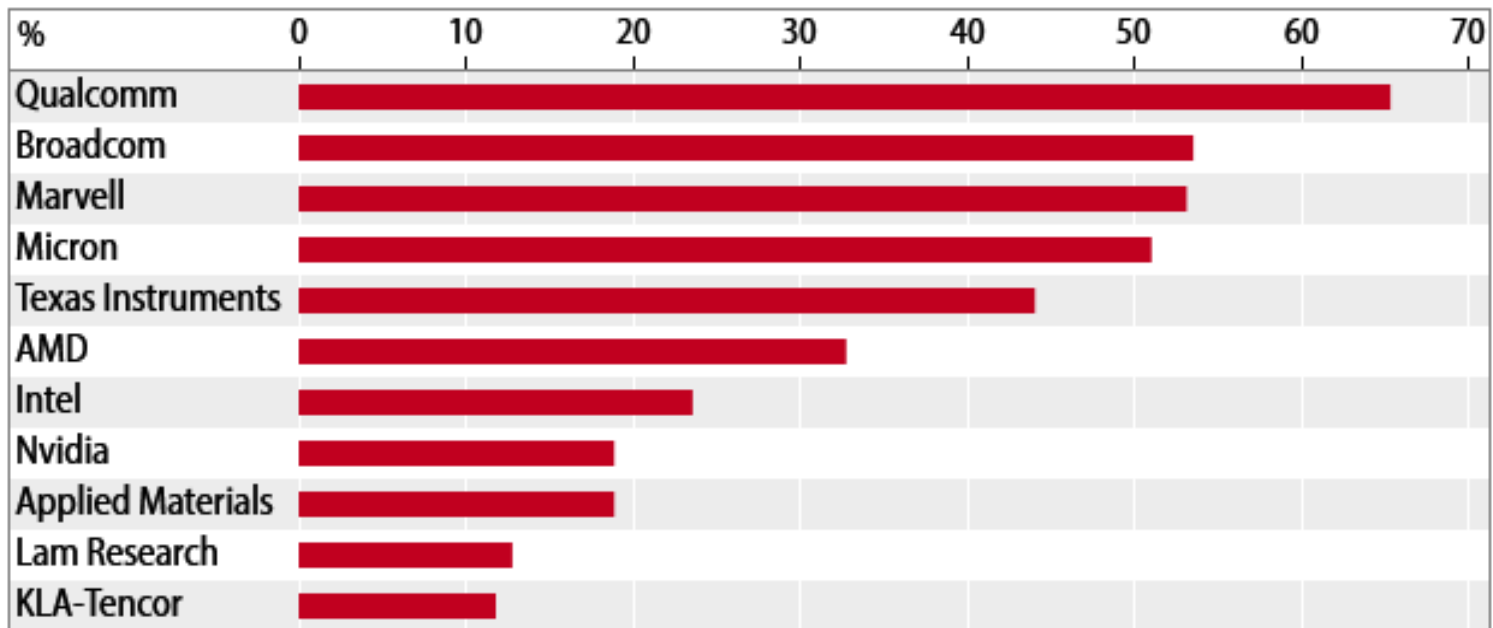
Image credit:  
Bloomberg



# Base case: export controls won't be too severe

## China is a huge customer for US chips companies

Percentage of sales in China, 2017



Bloomberg, Gavekal Data/Macrobond

# Contact and disclaimer

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**Thank you.**

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