

**WSTS**



**WORLD  
SEMICONDUCTOR  
TRADE STATISTICS**

# **SEMICONDUCTOR INDUSTRY GREEN BOOK 2018**

## **Graphs from the Blue Book**

Administered by  
WSTS, Inc.

Compiled by  
Moss Adams LLP in Campbell,  
topserve.ch GmbH in Winterthur and  
Grant ThorntonTaiyo in Tokyo

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The statistics presented in this report have been compiled on the basis of confidential data submitted by companies participating in the survey; estimates provided by WSTS, Inc. are included for nonparticipating companies worldwide. To adjust for non-receipt of any participant's data, Moss Adams LLP, topserve.ch GmbH and Grant Thornton Taiyo (GTT) will use that company's previously reported market share to compute its input data for the current month. The report reflects worldwide statistics for all non-captive semiconductor manufacturers worldwide.

Reported data include all monthly net billings (shipments) between semiconductor manufacturers and their end customers, authorized distributors and divisions or subsidiaries that manufacture end products.

All billings are reported according to customer shipment location. Actual sales prices (or comparable market prices for internal transfers) are used to value all billings.

Semiconductor companies participating in the survey should refer to the previously issued World Semiconductor Trade Statistics Participant Manual and the WSTS Product Classification for a more detailed description of the program, including detailed definitions of product categories. All participant inquiries with respect to the program, including the name of companies participating in the survey and the public sources used in compiling estimates, should be directed to the WSTS Administrator. All public inquiries concerning WSTS should be addressed to SIA in the Americas, Taiwan and China, to ESIA in Europe, to WSTS Japan Council in Japan and to KSIA in Asia Pacific (except for Taiwan and China).

Moss Adams LLP compiled the accompanying statistics from data submitted by participating companies, GTT in Tokyo, topserve.ch GmbH in Winterthur, and WSTS, Inc. in accordance with procedures described in the aforementioned participant manual. Because their work was limited to tabulating information furnished without audit, they can assume no responsibility for the accuracy of the underlying amounts.

**Changes in this Issue****Contact (for members only):**

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**Definitions**

Definition of regions: see Product Classification  
 WW: sum of regions

The following measures are all plotted on the most recent month:

3MMA: 3-Month Moving Average, sum of 3 months divided by 3.  
 12MMA: 12-Month Moving Average, sum of 12 months divided by 12.

3/12: Percent change of a 3-month period to a similiar period 12 months previously.  
 12/12: Percent change of a 12-month period to a similiar period 12 months previously.

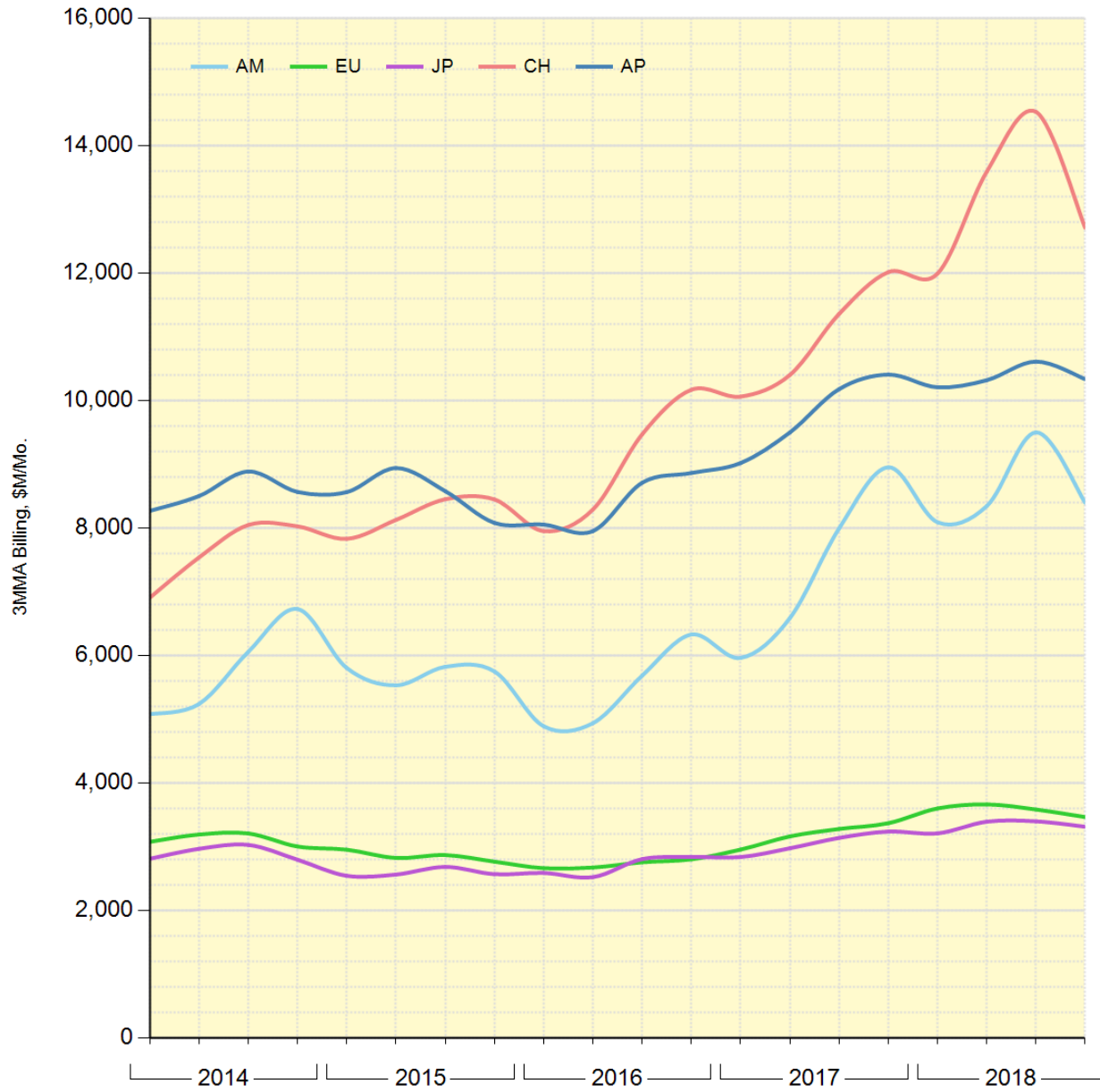
Bill: Shipments made and billed by ship-to location, including NRE.  
 Geographic Billing: Dollar value of net billings into each region by ship-to location between non-captive semiconductor manufacturers and their end customers, authorized distributors and divisions or subsidiaries that manufacture end products.

Price: Actual sales price or comparable market price for internal transfers.

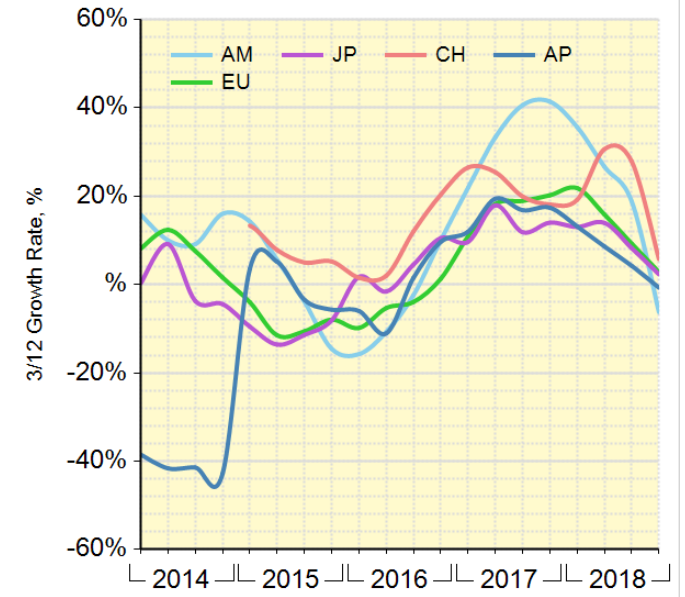
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TOTAL SEMICONDUCTOR	T99	GENERAL PURPOSE ANALOG	J0	MULTIPURPOSE & OTHER	L9
TOTAL MONOL INTEG CIRCUITS	S2	INTERFACE	J4	MOS SPECIAL PURPOSE LOGIC	LA
TOTAL DISCRETES	S3	POWER MANAGEMENT	J6	TOTAL LOGIC	L99
DIODES	A99	SIGNAL CONVERSION	J7	TOTAL MOS DRAM	M1
SMALL SIGNAL TRANSISTORS	B99	AMPLIFIERS/COMPARATORS (SIGNAL CONDITIONING)	J9	TOTAL MOS SRAM	M2
POWER TRANSISTORS	C99	APPLICATION SPECIFIC ANALOG	JA	MOS PSEUDO-SRAM	M2A
BIPOLAR & OTHER PWR TRANS	CA	CONSUMER	JB	MOS SRAM	M2B
INSULATED GATE BIPOLAR TRANS	CB	COMPUTER	JC	TOTAL OTHER MEMORY	M6
MOSFET POWER TRANSISTORS	CC	COMMUNICATIONS	JD	TOTAL FLASH MEMORY	M7
RECTIFIERS	D99	AUTOMOTIVE	JE	TOTAL NOR FLASH MEMORY	M7A
THYRISTORS	E99	INDUSTRIAL & OTHERS	JF	TOTAL NAND FLASH MEMORY	M7B
DISPLAYS	F1	TOTAL ANALOG	J99	MOS MASK PROM & EPROM	M8
LAMPS	F2	DIGITAL BIPOLAR	L1	TOTAL MOS MEMORY	M99
COUPLERS/ISOLATORS & SWITCHES	F3	MOS GENERAL PURPOSE LOGIC	L2a	MOS MPU	P1
IMAGE SENSORS	F5	MOS GATE ARRAYS	L2b	MOS MCU	P2
OTHER OPTOELECTRONICS	F6	MOS STANDARD CELLS	L2c	MOS MCU	P20
INFRARED	F7	MOS DISPLAY DRIVERS	L3	GENERAL MCU	P5
LASER PICKUP	F8	MOS TOUCH SCREEN CONTROLLERS	L4	GENERAL MCU	P50
LASER TRANSMITTER	F9	LOGIC, STANDARD	L5	SMART CARD MCU	P6
LIGHT SENSORS	F10	CONSUMER	LS	SMART CARD MCU	P60
TOTAL OPTOELECTRONICS	F99	COMPUTER & PERIPHERALS	L5	MOS DIGITAL SIGNAL PROCESSORS	P4
ALL OTHER DISCRETE	G99	COMMUNICATION	L6	TOTAL MOS MICRO	P99
SENSORS & ACTUATORS	H99	AUTOMOTIVE	L7	TOTAL APPL SPEC IC	Q99
			L8	TOTAL SEMICONDUCTOR	UT99

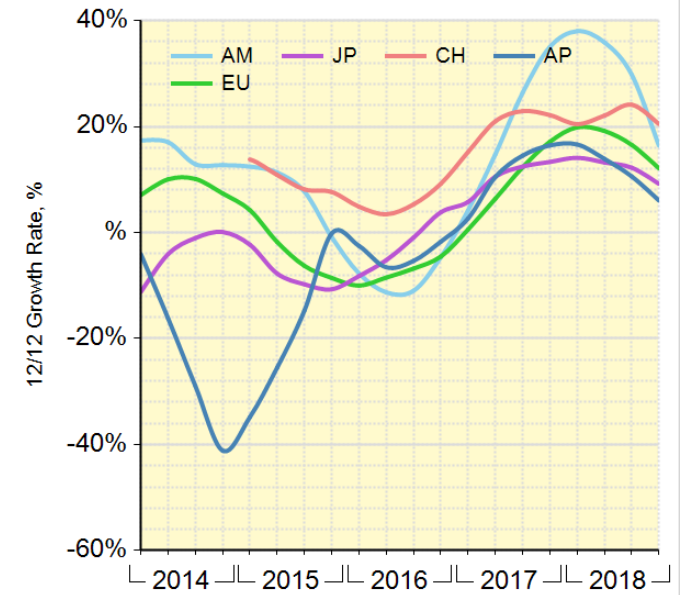
Semi Tot Geographic Billing

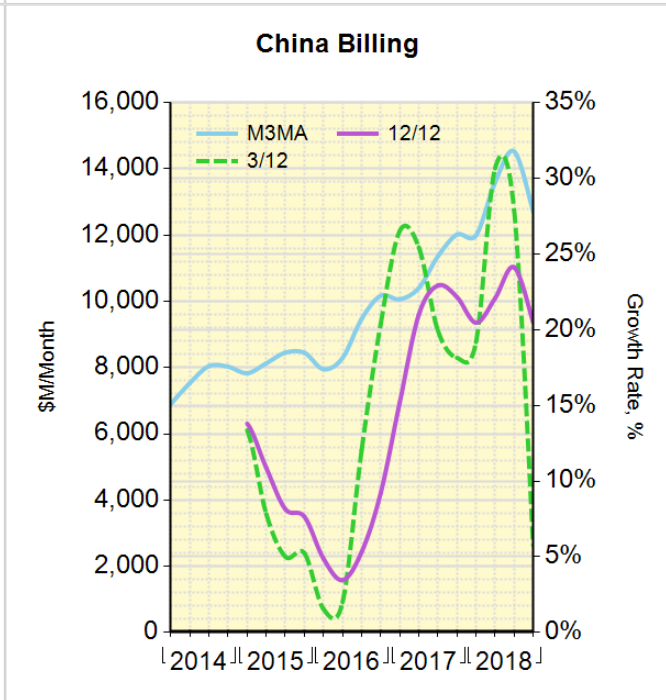
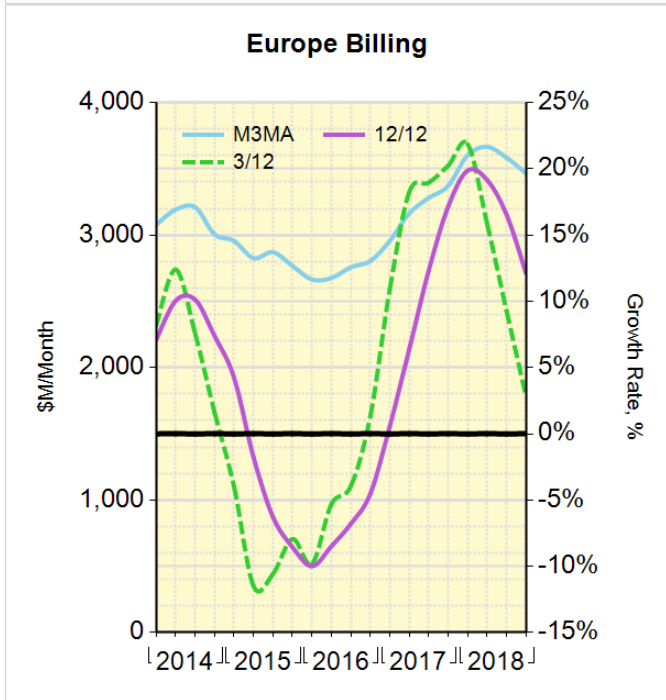
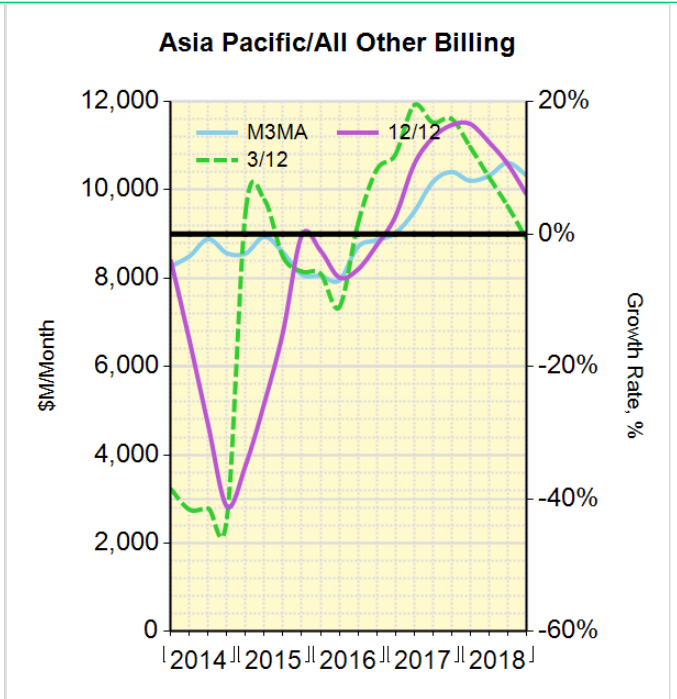
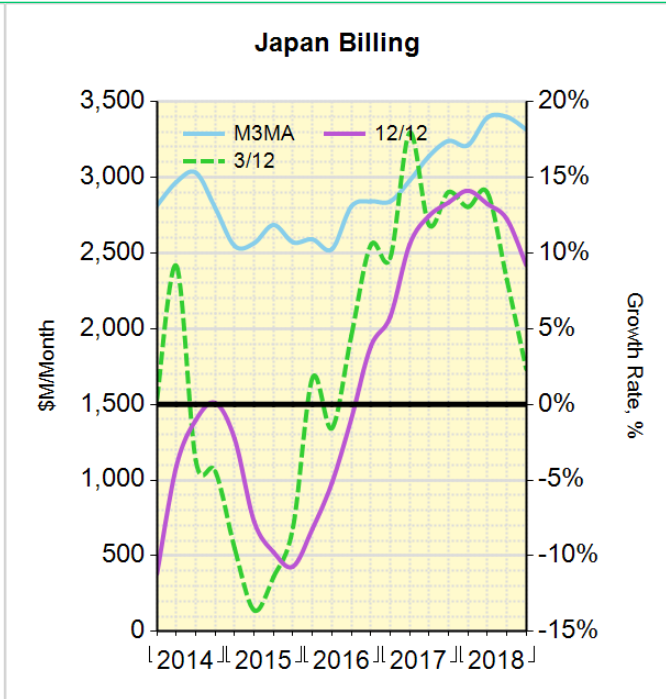
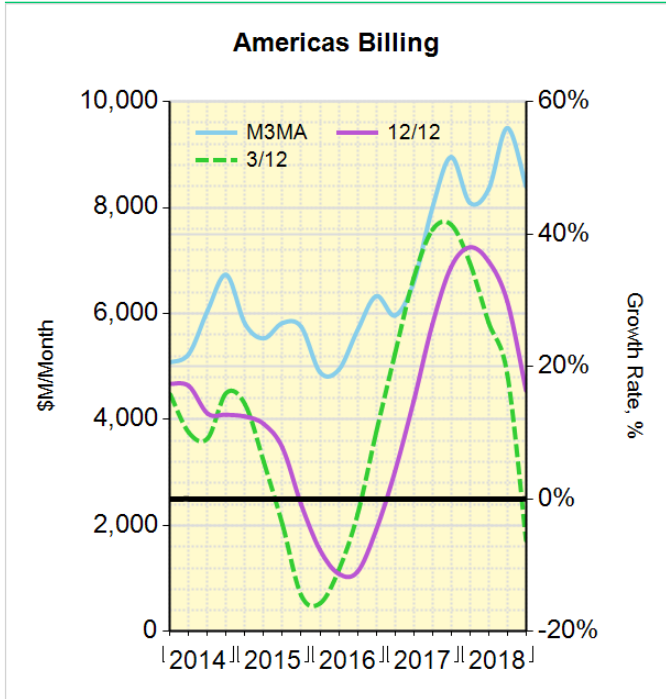


Semi Tot Geographic Billing Growth Rate



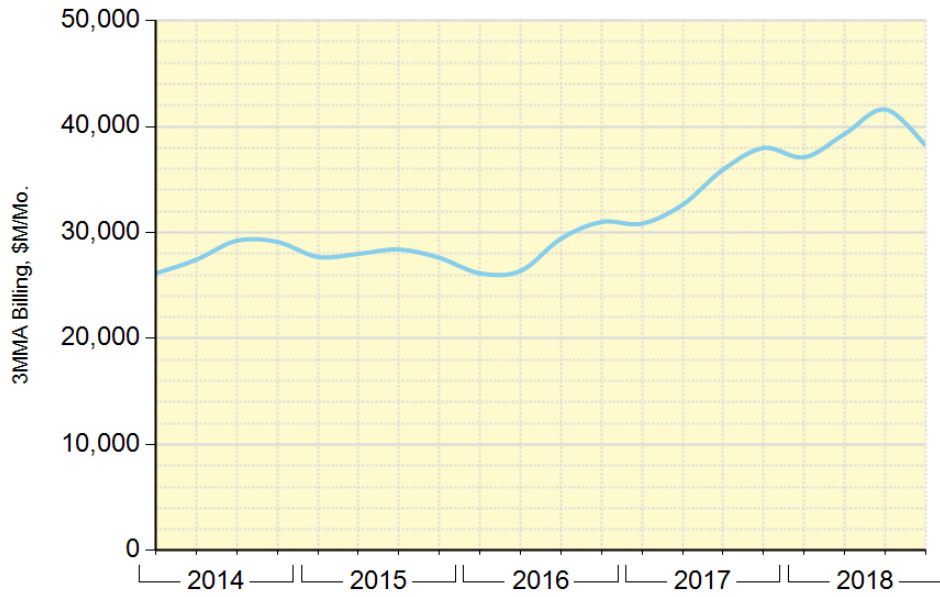
Semi Tot Geographic Billing Growth Rate



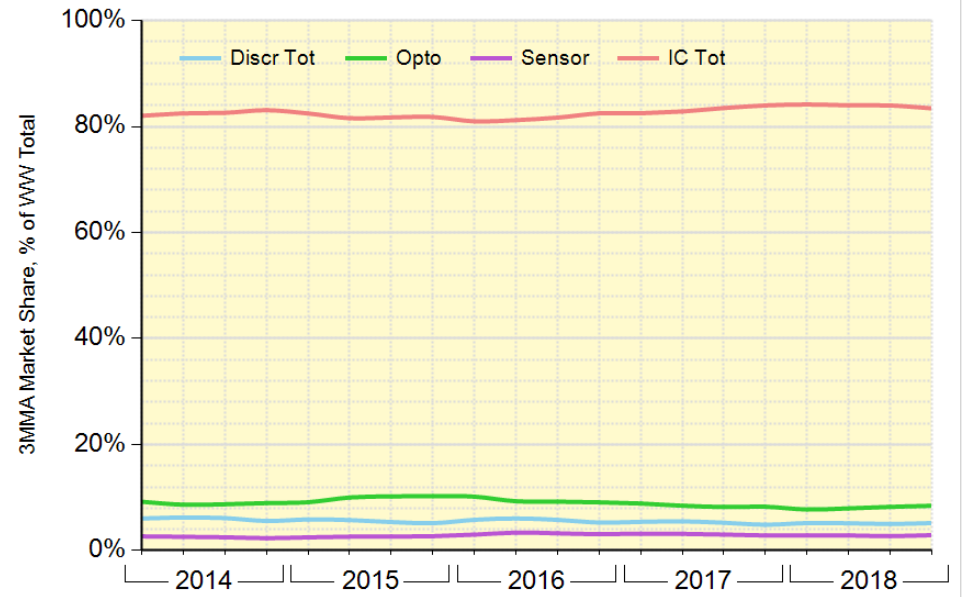




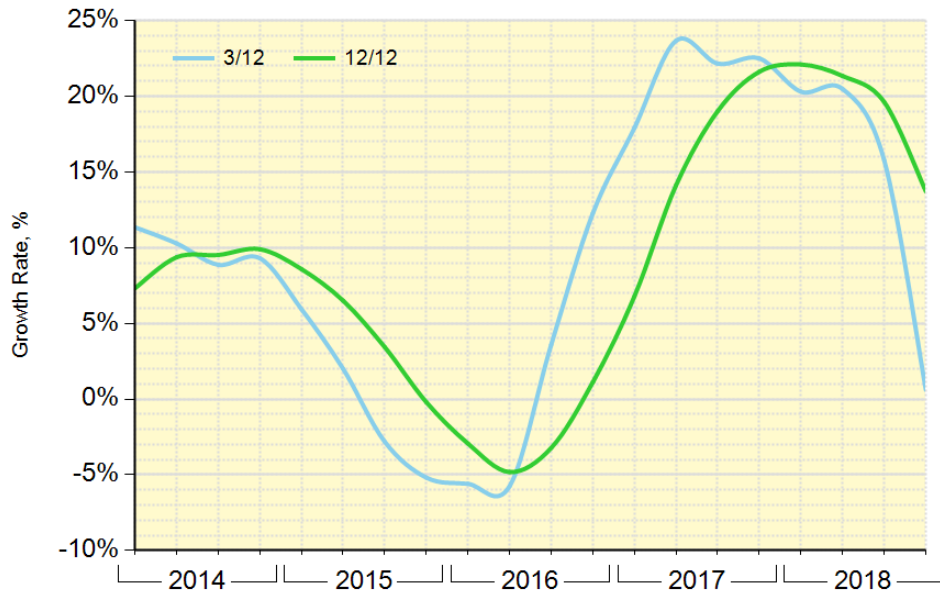
Semi Tot World Billing



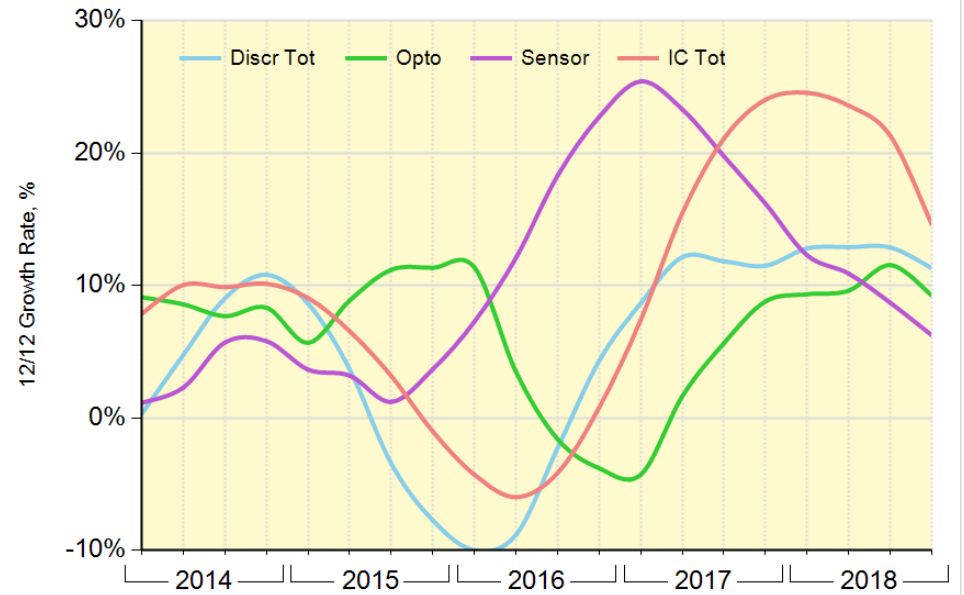
WW Market Share



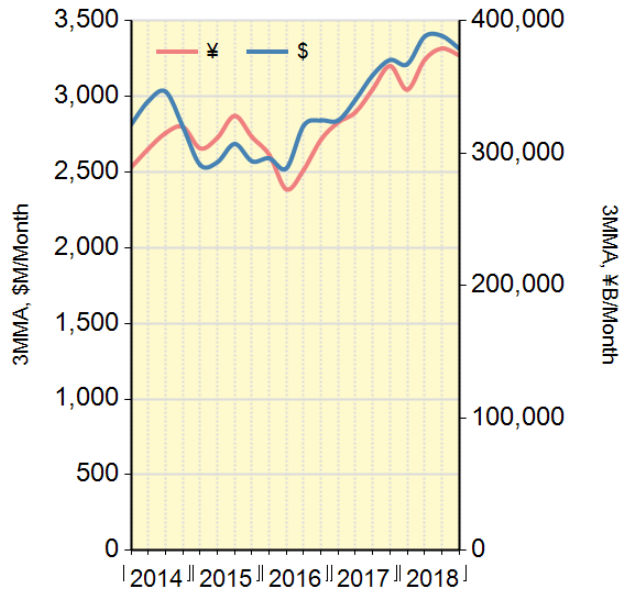
World Billing Growth Rate



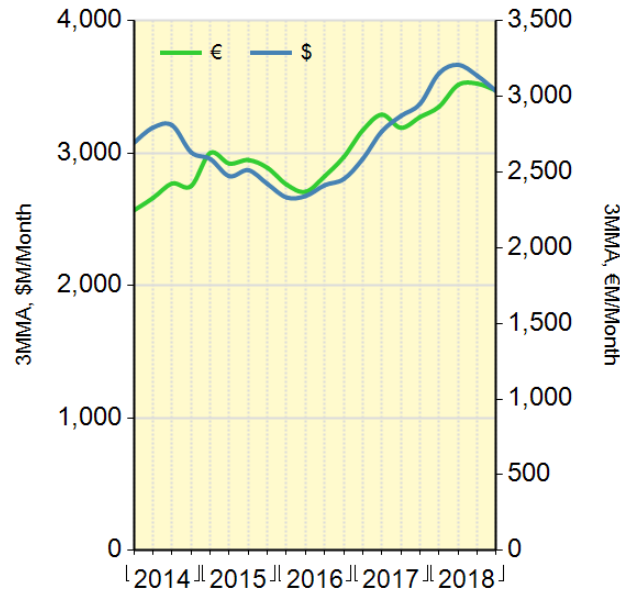
WW Growth Rate



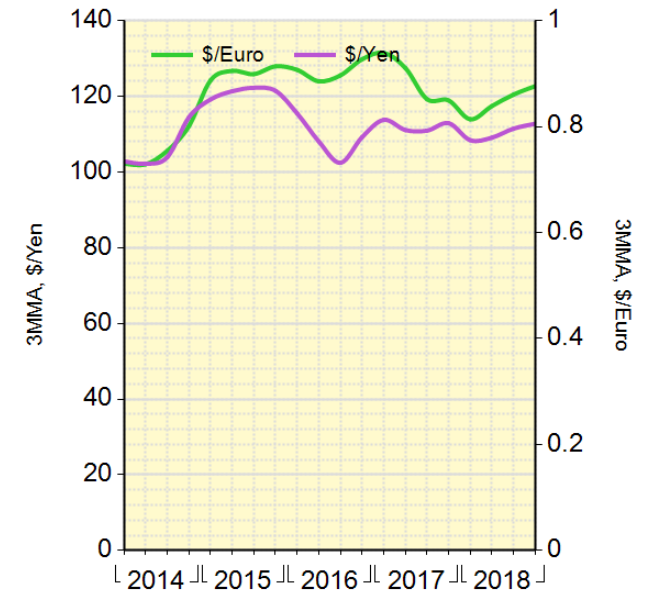
Japan Billing, \$ and Yen



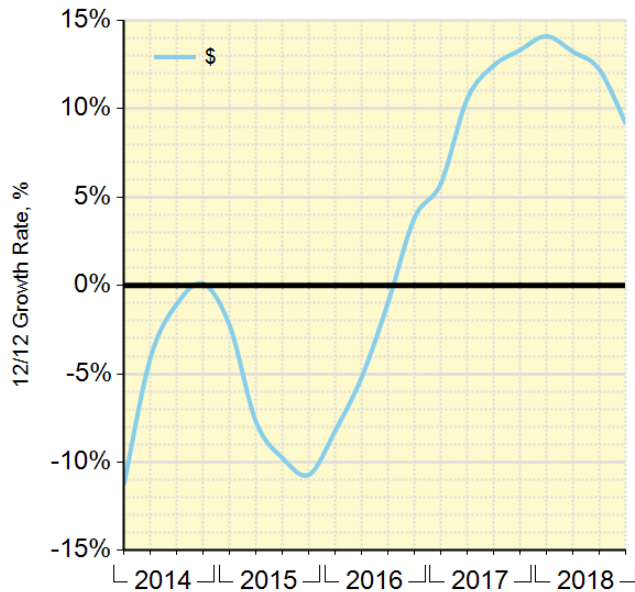
Europe Billing, \$ and Euro



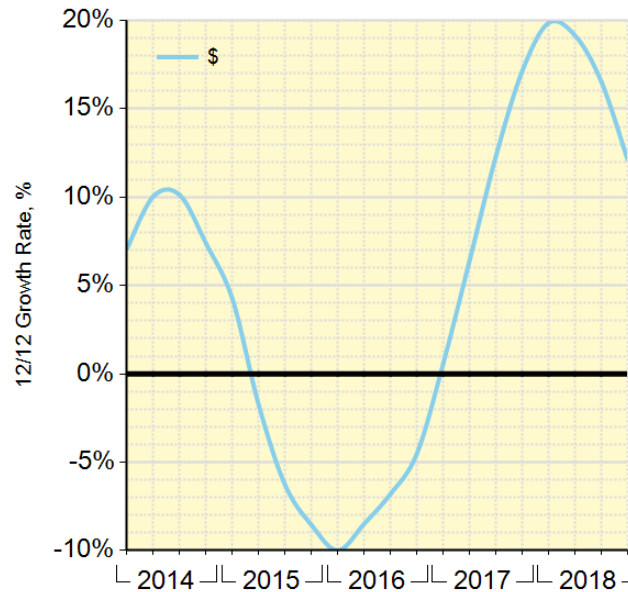
Yen, Euro Exchange Rates



Japan Billing Growth Rate



Europe Billing Growth Rate



Exchange Rate Growth Rate

