

September Implementation of DAX Reform 2021

Supporting Material

Frankfurt, July 19, 2021

Content

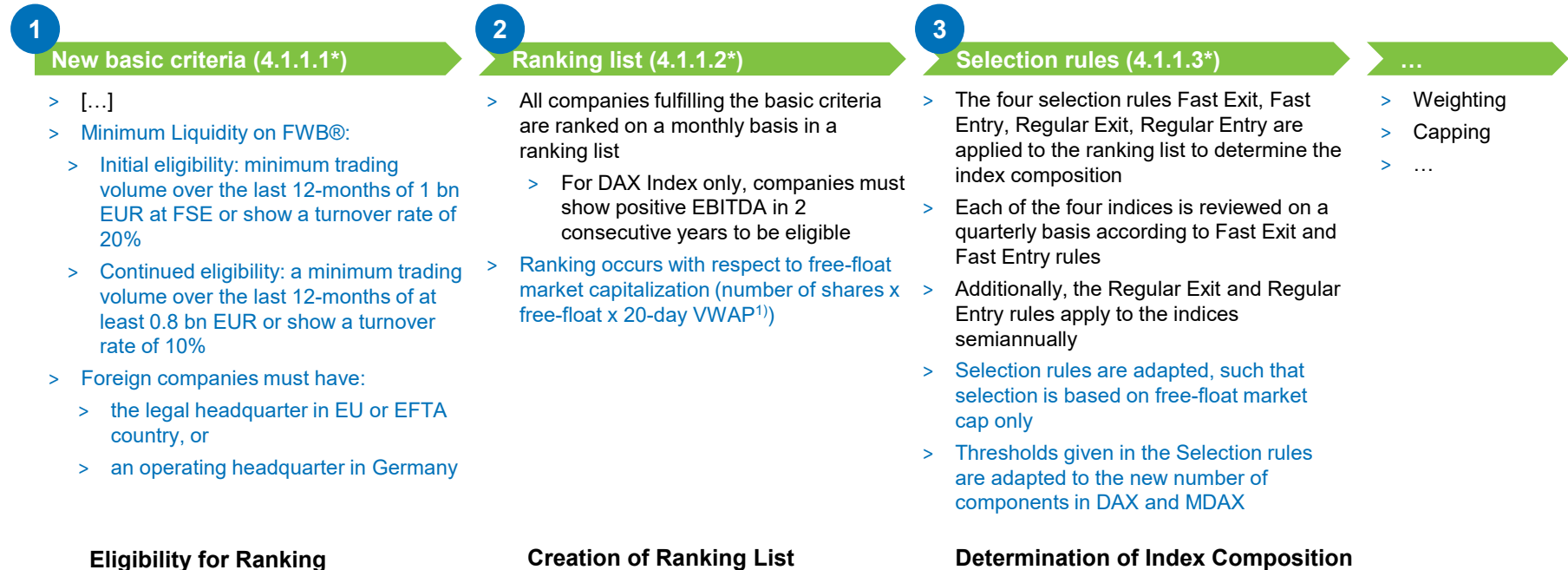
- > Summary of changes that are being implemented in September 2021
- > Description of transition process
- > Impact analysis for:
 1. Introduction Minimum Liquidity Filter as basic criteria
 2. Shift in Number of Constituents with regard to Index Market Cap and Turnover
 3. Sector Allocation of DAX and MDAX

About the Analysis

- > The analysis is based on a simulation of the following rule changes that are going to be effective with the September Review:
 - > a) changes in Number of constituents for DAX and MDAX
 - > b) selection based on market capitalization (i.e. no turnover ranking applied any longer)
 - > c) introduction of a minimum liquidity threshold

IMPORTANT NOTE: The simulated compositions are based on the most recent ranking list with cut-off date May 31, 2021 that was published June 3, 2021. These simulated compositions, however, are not indicative of future compositions of the indices that will be effective in September and only aim to illustrate the application of the rules.

September 2021 — Illustration of new Selection Process: 1.) Minimum Liquidity as New Basic Criteria, 2.) Ranking and Selection Solely based on FF-Market Cap, 3.) Adjusted Number of Constituents DAX and MDAX

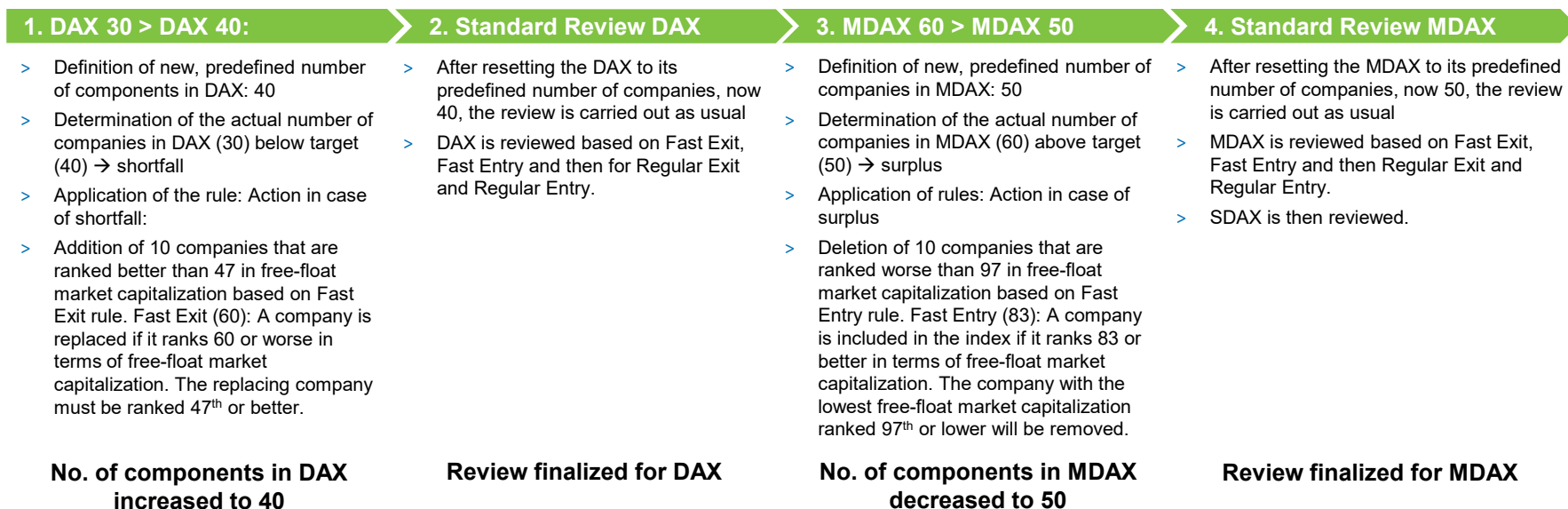


* Chapter numbers refer to the „Guide to the DAX Equity Indices“, in its current version 11.2 https://www.dax-indices.com/document/Resources/Guides/Guide_to_the_DAX_Equity_Indices.pdf

1) 20-days VWAP: volume weighted average price over 20 days

Transition Process for Change in Number of Constituents Based on Standard Selection Rules

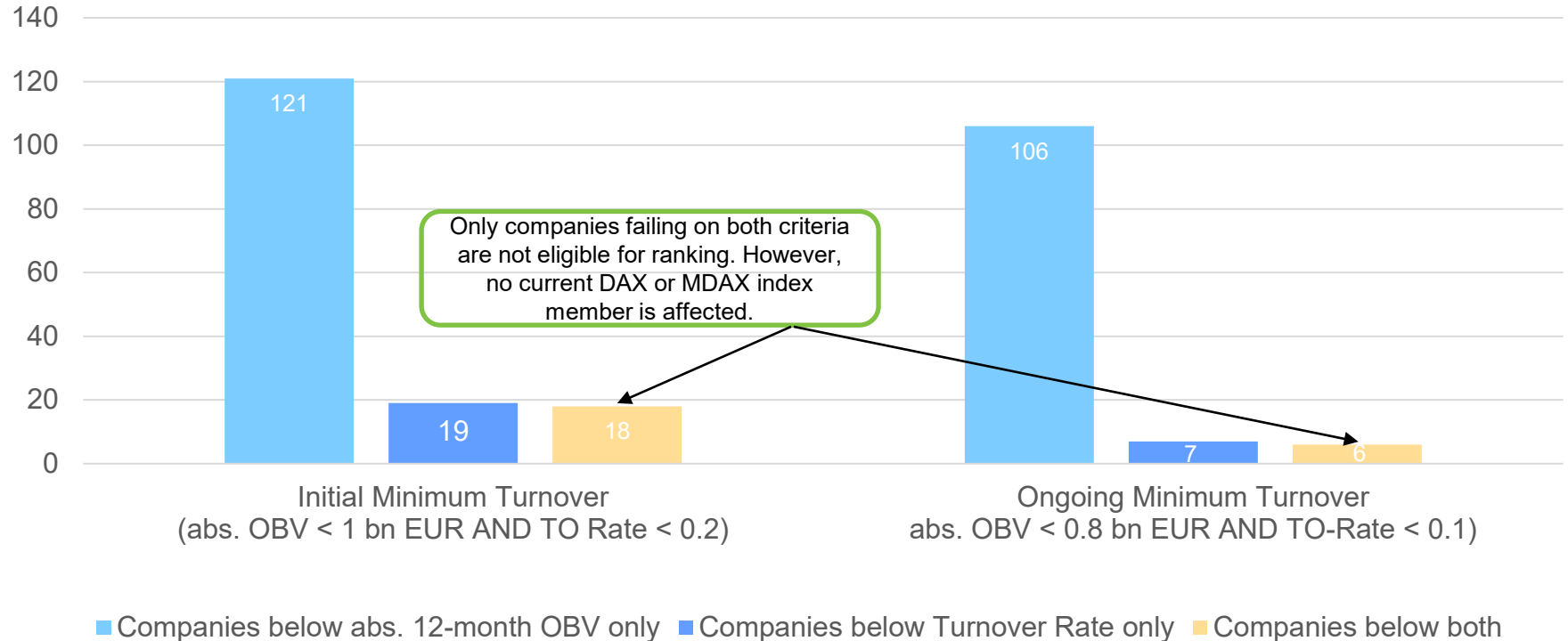
- > Before creating the new ranking list, the rules applicable in case of Shortfall and Surplus of constituents are artificially triggered by changing the target number of constituents to 40 for DAX and 50 for MDAX, so that, in a second step, the standard review rules are executed according to the new index sizes.



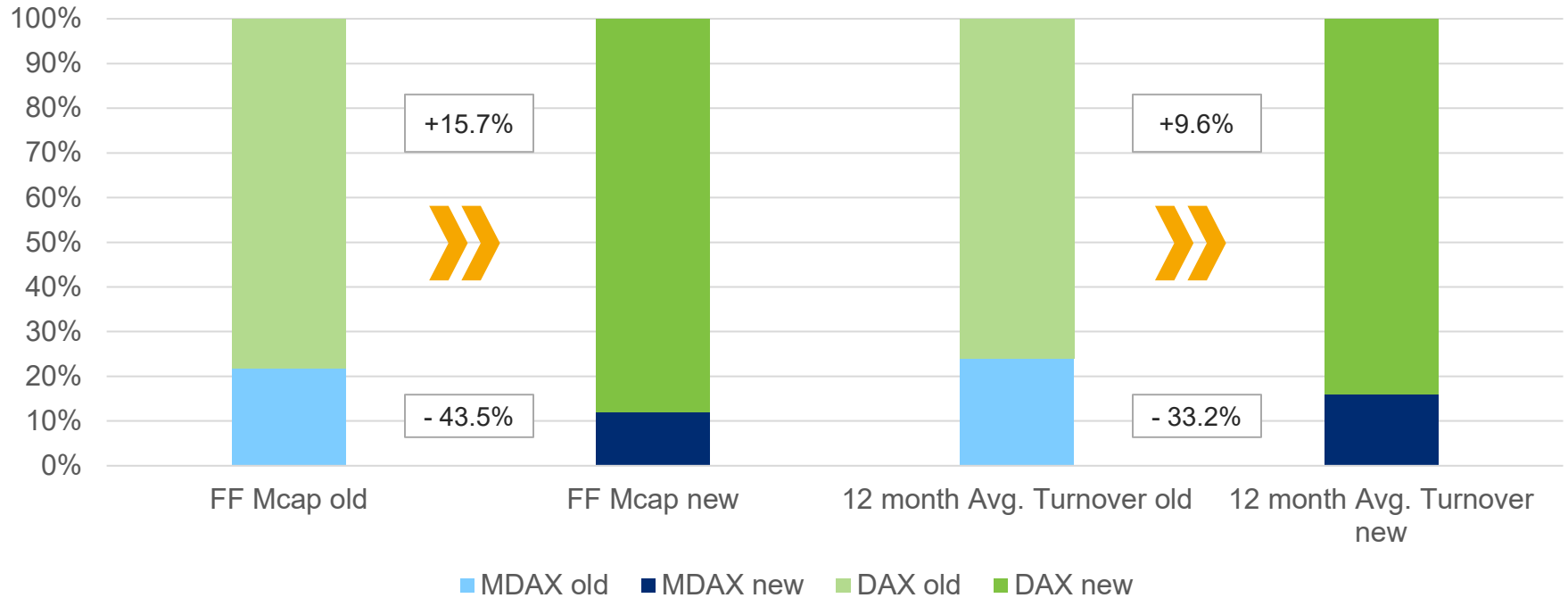
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Number of Previously Ranked Companies not Fulfilling the New Minimum Liquidity Requirement

No current Index components affected: the best-ranked affected company has rank #123



Impact of Changes in Number of Constituents on Index Market Capitalization¹⁾ and 12-month Average Turnover²⁾



Analysis based on Market Cap data as of May 31, 2021 and live Index compositions as of June 21, 2021 compared to data of SIMU Index compositions based on SIMU Ranking List as of May 31, 2021
 Turnover data used are as of June 30, 2021

Please see https://www.dax-indices.com/document/Resources/Market_Consultation/Client_Information_DAX_Index_ENG.pdf for more detail on companies moving from MDAX to DAX

Scenario Analysis: Impact of Considered Rule Change on Free-float Market Cap per Index — Actual vs. Simulated Composition

Impact Analysis ¹⁾		Free-float Market Capitalization in Index (in mn EUR) ²⁾				
		Min	Max	Sum	Median	Average
DAX	Before	10,272	121,026	1,206,002	20,754	40,200
	After	90,75	125,305	1,395,547	20,347	34,888
MDAX	Before	1,389	33,490	336,100	4,919	5,601
	After	1,735	8,864	190,018	3,120	3,800
SDAX ³⁾	Before	372	2,659	69,603	661	994
	After	376	1,838	66,854	823	955
TecDAX ³⁾	Before	612	12,433	122,709	2,306	4,090
	After	630	12,772	126,097	2,484	4,203

1) Simulation of the September 2021 Review based on cut-off date May 31, 2021. Market Cap data as of June 21, 2021

2) Market Cap Values are based on capped no. of shares. Capping can differ for the same security if total no. of components in Index changes

3) Effect on compositions of SDAX and TecDAX are mainly based on revocation of selection by turnover rank.

Scenario Analysis: Impact of Considered Rule Change on Orderbook Volume per Index — Actual vs. Simulated Composition

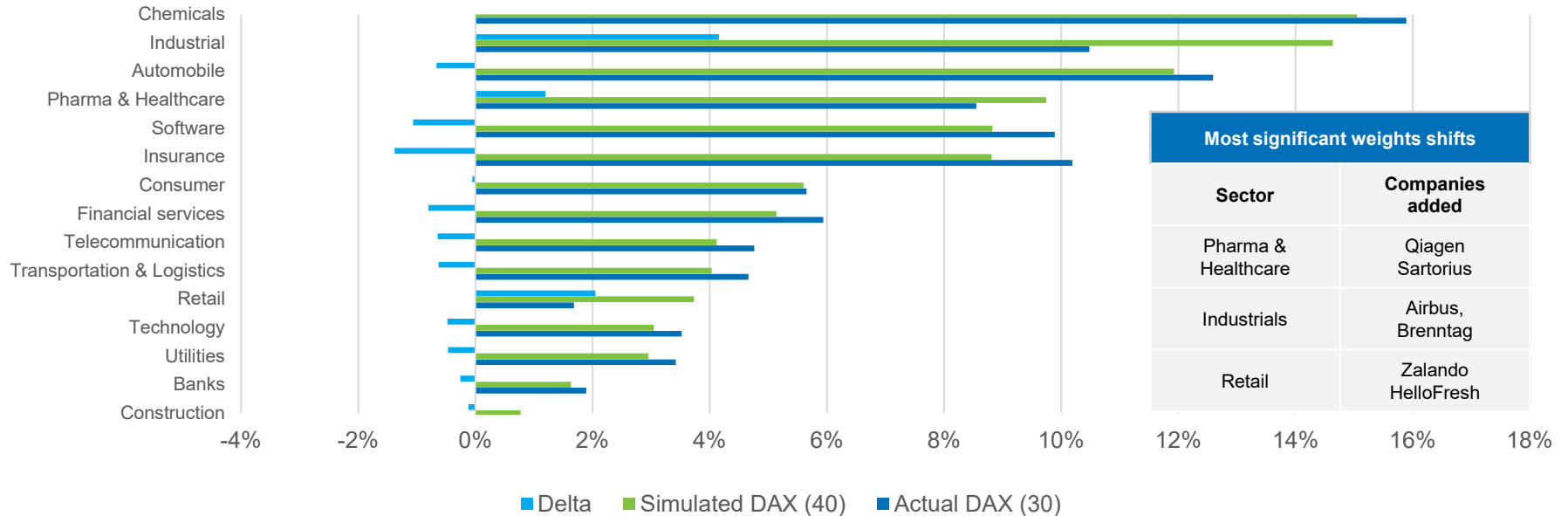
Impact Analysis ¹⁾		Orderbook Volume (in mn EUR)				
		Min	Max	Sum	Median	Average
DAX	Before	10,476	76,849	886,634	19,227	29,554
	After	3,833	76,849	972,184	17,543	24,304
MDAX	Before	1,344	13,854	279,521	4,285	4,658
	After	631	12,111	186,820	3,161	3,736
SDAX	Before	121	2,920	55,858	354	797
	After	101	3,401	61,744	857	882
TecDAX	Before	188	76,849	245,842	3,138	8,194
	After	188	76,849	245,580	3,138	8,185

1) Simulation of September 2021 Review based on cut-off date May 31, 2021. Turnover data as of June 30, 2021.

Number of Constituents: Increase for DAX from 30 to 40 and Reduce for MDAX from 60 to 50

Impact on DAX

Changes in Sector Allocation: actual DAX (30) vs. simulated DAX (40)

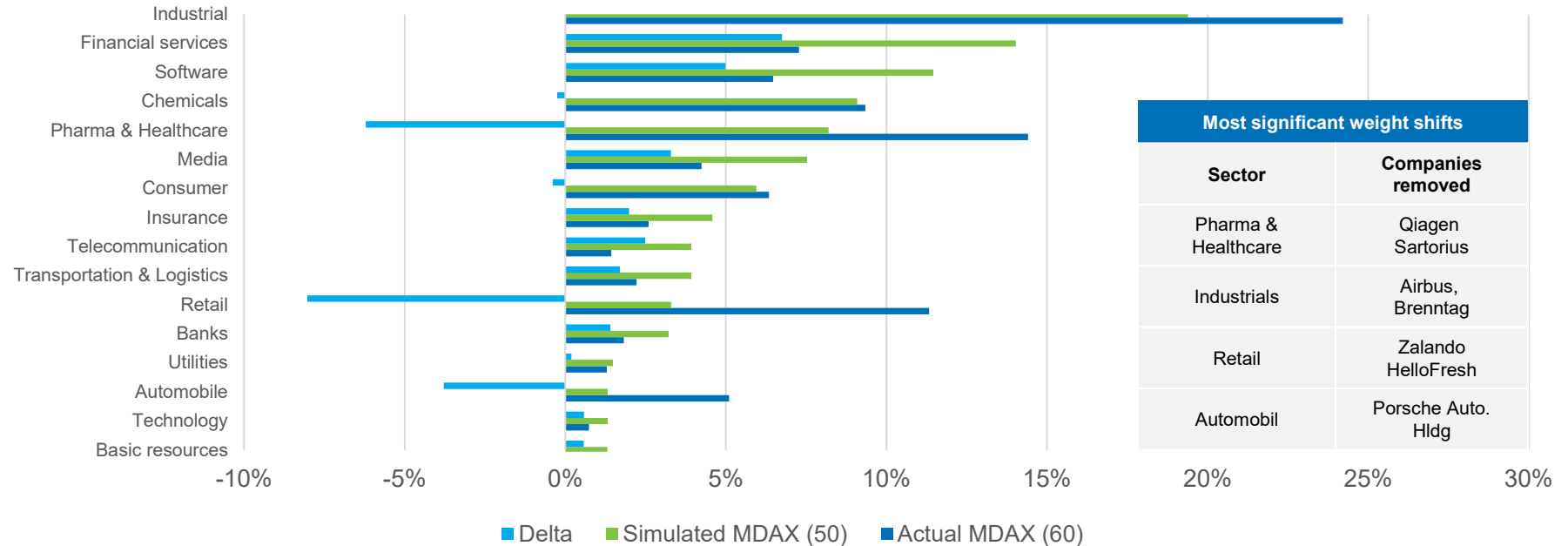


1) Simulation of the September 2021 Review based on cut-off date May 31, 2021. Component weightings based on data as of June 21, 2021
 2) Market Cap Values are based on capped no. of shares

Number of Constituents: Increase for DAX from 30 to 40 and Reduce for MDAX from 60 to 50

Impact on MDAX

Changes in Sector Allocation: actual MDAX (60) vs. simulated MDAX (50)



1) Simulation of the September 2021 Review based on cut-off date May 31, 2021. Component weightings based on data as of June 21, 2021

2) Market Cap Values are based on capped no. of shares

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