

Transition Effects from the Initial Adoption of IFRS 9 by Italian and German Blue Chip Companies

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For the financial years from 2018, the new standard for accounting of financial instruments, IFRS 9, was applicable for the first time. Various questions arose in connection with the transition. For example, how high would the resulting transition effect be on equity? Another aspect related to the question of the extent to which the fair value measurement (through profit or loss) would increase. It is also of interest whether the previously presented IFRS 9 changes are classifiable as being material. Through the analysis of the financial statements of FTSE MIB and DAX 30 companies that were prepared for the first time in accordance with IFRS 9 in the year 2018, answers are given in this article to the aforementioned questions and a comparison is made regarding the extent to which national differences or commonalities existed. In the overall view of the absolute change in equity, for the FTSE MIB companies, a mean value of €- 3.03 million was calculated and for the DAX 30 companies, €- 34.29 million. The equity ratio (median), however, only declined marginally in percentage points with the FTSE MIB companies (-0.07), as well as with the DAX 30 companies (-0.02). With regard to the migration of financial assets, it has been shown that the accounting and measurement of more than 90% of financial assets of the FTSE MIB and DAX 30 companies have not changed. With the rest, the measurement net at fair value (through profit or loss) increased in both stock exchange segments. Nearly all changes to equity, the FTSE MIB, as well as DAX 30 companies, can be classified as immaterial. The extent to which the expansion of the measurement of financial instruments, which are measured at the fair value (through profit or loss) can be material, will ultimately depend on the individual case, in view of the future IFRS financial statements. This then depends on how high the actual change in fair value (through profit or loss) of these holdings is in a period in an individual case, in absolute and relative terms—for example, in proportion to the equity and the P&L. The latter also applies to FTSE MIB, as well as DAX 30 companies.

Keywords: IFRS 9, financial instruments, transitions effects, DAX 30, FTSE MIB

Introduction

In July 2014, the International Accounting Standards Board (IASB) published the final and complete version of International Financial Reporting Standard 9 (IFRS 9) for the accounting of financial instruments.

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This was adopted in European law on 22 November 2016.¹ IFRS 9 thereby largely replaced the previous IAS 39 and requires mandatory application by European IFRS financial statement issuers for financial years that have started on or after 1 January 2018. The global financial market and economic crisis in 2007 was decisive for the amendment to the accounting standard for financial instruments. The main objectives of the IASB were to reduce complexity, on the one hand, and to introduce more forward-looking model for the recognition of expected losses on financial assets, on the other hand. The latter were to be formed counter-cyclically and consequently earlier than was possible under the predecessor Standard IAS 39. The changes in the new IFRS 9 standard related to the following three areas: classification and measurement, impairment, and hedge accounting.²

The development of the IFRS 9 accounting standards took a good 10 years. Various questions arose in connection with the transition. For example, how high would the transition effect be on the equity, resulting from the basically retrospective application of the new standard, in the year of initial adoption for the company concerned? In addition to the level and direction of the transition effect, in this context, which of the three previously mentioned areas this results from is also of interest. Another aspect is related to the question of the extent to which the fair value measurement (through profit or loss) would increase as a result of the new IFRS 9 standard. Overall, it is also of interest whether the previously presented IFRS 9 changes are classifiable as being material. Through the analysis of the financial statements of FTSE MIB and DAX 30 companies that were prepared for the first time according to IFRS 9 in the year 2018, answers are given in this article to the aforementioned questions.³

The data underlying the study were compiled as follows. In Italy (D.Lgs. 38/2005) and Germany (315e (1) and (2) HGB [German commercial Code]), all of the so-called capital-market-oriented (parent) companies are obligated to prepare their (consolidated) financial statements according to the IAS/IFRS international accounting standards. The largest Italian and German IAS/IFRS financial statement issuers are the FTSE MIB and DAX 30 listed companies. As of the analysis reference date of 1 January 2018, these were a total of 70 companies (40 FTSE MIB and 30 DAX), of which a total of 54 companies were taken into consideration in this analysis (28 FTSE MIB and 26 DAX 30). Banks and insurance companies have significantly more financial instruments in their balance sheets than non-banks on the basis of their business model.⁴ In order to avoid possible distortions in this respect for the investigation of the annual reports, a total of 11 banks⁵ (9 FTSE MIB

¹ Cf. Commission Regulation (EU) 2016/2067 of 22 November 2016 amending Regulation (EC) No. 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No. 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 9.

² Numerous publications already exist regarding the content amendment of the three IFRS 9 areas referred to, which are referred to here; cf. to cite but a few Schmidt, Barekzai, & Huettermann, (2014, pp. 373 et seqq. and 433 et seqq.); Wuestemann & Backes (2015, pp. 299 et seqq.); Berger, Geisel, Barz, Garz, Gerlach, Hartenberger, & Kuhn (2016, pp. 964 et seqq.); Berger & Geisel (2017, pp. 619 et seqq.).

³ In advance of the initial adoption of IFRS 9, various publications were issued by regulatory authorities, auditing firms and academics, which deal with the subject of possible initial adoption effects of IFRS 9. For the most part, the focus of these was on credit institutions, as financial instruments account for the majority of the balance sheet. Regarding a detailed overview of all of these publications, see Loew, Schmidt, & Thiel (2019, pp. 4 et seqq.). Regarding additional publications on quantitative evaluations of financial statements for the year 2018 on the IFRS 9 initial adoption effects for non-banks, see Keitz & Grote (2019, pp. 126 et seqq.), Henkel & Gruber (2019, pp. 88 et seqq.), and Henkel (2020, pp. 524 et seqq.). Regarding relevant publications for banks, see Loew et al. (2019).

⁴ However, Keitz & Grote (2019, p. 126)—with reference to Barckow (in: Baetge inter alia (Publ.), Rechnungslegung nach IFRS, as of: Feb. 2018, IFRS 9 Margin Number 9)—indicates that it is also not unusual for non-banks that the proportion of financial instruments can account for more than 50% of total assets.

⁵ The companies in the FTSE MIB are Banca Generali, Banco BPM, BPER Banca, FinecoBank, Intesa Sanpaolo, Mediobanca,

and 2 DAX 30) and five insurance companies⁶ (3 FTSE MIB and 2 DAX 30) were excluded from the analysis. The transition effects were calculated as of the effective date of 1 January 2018, whereby the values before and after IFRS 9 were compared to opening balance sheet postings. In principle, the respective annual reports of the listed companies (consolidated annual financial statements) were investigated for the year 2018. If these were not available or there was a deviation from the calendar year, the interim reports were investigated. For annual reports in US dollars, the euro values were calculated using the euro reference exchange rate of the European Central Bank (ECB) as of year-end 2017.⁷ The collection of information took place by a qualified person manually looking through the IFRS financial statements and spot checks were performed by a second qualified person. The respective consolidated statements of changes in equity and notes were used as a basis for calculating the transition effects. The majority of the values in the notes were stated before deferred taxes, while the values in the consolidated statement of changes in equity already contained the implications of the deferred taxes. In this respect, certain assumptions were made in the investigation, which are shown in the respective legends.

The procedure for the investigation is as follows. In Section II, the transition effects of the FTSE MIB companies are shown. First of all, the equity effects from the IFRS 9 transition are shown in the first sub-section. The basis for this is a comprehensive overview containing the material results of the evaluation of the relevant annual reports. After this, the migration paths of the financial assets of the FTSE MIB companies are presented in a second sub-section. The procedure in Section III regarding the transition effects of the DAX 30 companies is analogous to this. The presentation of the equity effects and then the migration paths also takes place here in two sub-sections. The subject matter of Section IV is the comparison of the transition effects of the FTSE MIB and DAX 30 companies. Here, the comparison of the equity effects of the investigated companies from both of the analysed stock exchange segments also initially takes place in two sub-sections. The key assessment variable for this is the relevant balance sheet indicator of the equity ratio.⁸ In the second sub-section, the migration paths of the FTSE MIB and DAX 30 companies are then compared to one another. Based on the result of Section IV, the initially asked questions are answered as part of a summary in Section V.

Transition Effects of the FTSE MIB Companies

Equity Effects of the FTSE MIB Companies

According to the investigation results shown in Figure 1, nine of the 28 companies (32.1%) showed an equity transition effect from the IFRS 9 classification and measurement sub-area. Out of these, seven companies (25.0%) had a positive effect and two companies (7.1%) had a negative effect. The remaining 19 companies (67.9%) did not show any effect. The effects that had an impact on the equity due to the new classification and measurement requirements spanned from a minimum of €- 3.60 million (Mediaset, Figure 1 Cell C 18) up to a maximum of €650.00 million (Eni, Cell C 11) and had a range of €53.60 million. The

Poste Italiane, UBI Banca, and UniCredit. The companies in the DAX 30 are Commerzbank and Deutsche Bank.

⁶ The companies in the FTSE MIB are Generali, Unipol Gruppo, and UnipolSai. The companies in the DAX 30 are Allianz and Munich Re.

⁷ These are three companies from the FTSE MIB (CNH Industrial, STMicroelectronics and Tenaris). The euro reference exchange rate of the ECB at the end of 2017 is EUR 1 = US dollar 1.1993.

⁸ Through the use of the relative “equity ratio” key performance indicator (equity/total capital) – instead of the absolute “equity” key performance indicator—the statements are extracted from the size of the company, see Baetge, Kirsch, & Thiele (2004, p. 36).

average effect on the equity amounted to €-27.90 million (mean).

The investigation of the equity effect from the IFRS 9 impairment sub-area concluded that 14 of the 28 companies (50.0%) showed an effect. Out of these, two companies (7.1%) had a positive effect and 12 companies (42.9%) had a negative effect. The remaining 14 companies (50.0%) did not show any effect. The effects that had an impact on the equity due to the new impairment requirements spanned from a minimum of € - 356.00 million (Eni, Cell E 11) up to a maximum of €+3.50 million (Tenaris, Cell E 28) and had a range of €359.50 million. The average effect on the equity amounted to €- 30.93 million (mean).

The investigation of the equity effect from the IFRS 9 hedge accounting sub-area concluded that all 28 companies (100.0%) showed no effect. Six companies (21.4%)—Campari, Leonardo, Mediaset, Saipem, Salvatore Ferragamo, and Telecom Italia—exercised the option to continue the hedge accounting requirements of IAS 39.

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
		Formula ^{a)}		C / I		E / I		G / I	C + E + G		I / J		J / L	(J + 1) / (L + 1)	(N - M) / M
2	No.	FTSE MIB companies	Delta-EQ Classification and Measurement		Delta-EQ Impairment		Delta-EQ Hedge Accounting		Delta-EQ total ^{b), c)}	EQ in 31.12.2017	Delta-EQ	Total assets 31.12.2017	EQ ratio IAS 39 31.12.2017	EQ ratio IFRS 9 01.01.2018 ^{d)}	Delta-EQ ratio
			€ million	%	€ million	%	€ million	%	€ million	€ million	%	€ million	%	%	%
3	1	A2A	0.00 ^{e, k)}	0%	-4.00 ^{e)}	100%	0.00 ^{e, k)}	0%	-4.00 ^{e)}	3,013	-0.13%	9,949	30.28%	30.26%	-0.09%
4	2	Atlantia	31.65	100%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	31.65	11,762	0.27%	40,057	29.36%	29.42%	0.19%
5	3	Azimut Holding	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	612	0.00%	8,106	7.55%	7.55%	0.00%
6	4	Brembo	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	1,064	0.00%	2,299	46.28%	46.28%	0.00%
7	5	Buzzi Unicem	2.78 ^{f)}	100%	0.01 ^{f)}	1%	0.00 ^{k)}	0%	2.79	2,852	0.10%	5,783	49.32%	49.34%	0.05%
8	6	Campari	2.30	153%	-0.80	-53%	0.00 ^{k)}	0%	1.50	1,942	0.08%	4,419	43.95%	43.97%	0.04%
9	7	CNH Industrial	0.00 ^{g, k)}	0%	-10.01 ^{g)}	100%	0.00 ^{g, k)}	0%	-10.01 ^{g)}	5,573	-0.18%	42,356	13.16%	13.14%	-0.16%
10	8	Enel	89.87 ^{h)}	-92%	-187.87 ^{h)}	192%	0.00 ^{k)}	0%	-98.00	52,161	-0.19%	155,641	33.51%	33.47%	-0.12%
11	9	Eni	650.00	221%	-356.00	-121%	0.00 ^{k)}	0%	294.00	48,079	0.61%	114,928	41.83%	41.98%	0.35%
12	10	Exor	0.00 ^{k)}	0%	-19.00	100%	0.00 ^{k)}	0%	-19.00	31,186	-0.06%	163,775	19.04%	19.03%	-0.05%
13	11	Ferrari	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	783	0.00%	4,141	18.91%	18.91%	0.00%
14	12	Fiat Chrysler Automobiles	0.00 ^{k)}	0%	-9.00	100%	0.00 ^{k)}	0%	-9.00	20,987	-0.04%	96,299	21.79%	21.79%	-0.03%
15	13	Italgas	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	1,185	0.00%	5,844	20.28%	20.28%	0.00%
16	14	Leonardo	-2.26 ^{f)}	2%	-144.74 ^{f)}	98%	0.00 ^{k)}	0%	-147.00	4,213	-3.49%	24,711	17.05%	16.55%	-2.91%
17	15	Luxottica	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	5,813	0.00%	10,064	57.76%	57.76%	0.00%
18	16	Mediaset	-3.60	100%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	-3.60	2,382	-0.15%	5,780	41.21%	41.17%	-0.09%
19	17	Moncler	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	923	0.00%	1,380	66.88%	66.88%	0.00%
20	18	Pirelli & C.	0.00 ^{k)}	0%	-1.02	100%	0.00 ^{k)}	0%	-1.02	4,177	-0.02%	12,733	32.80%	32.80%	-0.02%
21	19	Prysmian	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	1,675	0.00%	6,743	24.84%	24.84%	0.00%
22	20	Recordati	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	1,027	0.00%	2,056	49.95%	49.95%	0.00%
23	21	Saipem	0.00 ^{k)}	0%	-28.00	100%	0.00 ^{k)}	0%	-28.00	4,599	-0.61%	12,590	36.53%	36.39%	-0.39%
24	22	Salvatore Ferragamo	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	0.00	748	0.00%	1,182	63.28%	63.28%	0.00%
25	23	Snam	8.00	100%	0.00 ^{k)}	0%	0.00 ^{k)}	0%	8.00	6,188	0.13%	21,816	28.36%	28.39%	0.09%
26	24	STMicroelectronics	0.00 ^{g, k)}	0%	0.00 ^{g, k)}	0%	0.00 ^{g, k)}	0%	0.00 ^{g)}	4,854	0.00%	9,065	53.55%	53.55%	0.00%
27	25	Telecom Italia	0.00 ^{k)}	0%	-107.00	100%	0.00 ^{k)}	0%	-107.00	23,783	-0.45%	68,783	34.58%	34.47%	-0.29%
28	26	Tenaris	2.60 ^{g)}	43%	3.50 ^{g, i)}	57%	0.00 ^{k)}	0%	6.10 ^{g)}	9,656	0.06%	12,005	80.43%	80.44%	0.01%
29	27	Terna	0.00 ^{k)}	0%	-2.20	100%	0.00 ^{k)}	0%	-2.20	3,829	-0.06%	16,916	22.64%	22.63%	-0.04%
30	28	YOOX Net-a-Porter Group	0.00 ^{j, k)}	0%	0.00 ^{j, k)}	0%	0.00 ^{j, k)}	0%	0.00 ^{j)}	1,922	0.00%	3,007	63.92%	63.92%	0.00%

Legend:

EQ = Equity, AR = Annual report, S1 = Semi-annual report, ECB = European Central Bank

red Number = lowest value in a column; green Number = highest value in a column

a) The formulas indicate how the values in the respective column were calculated.

b) Initial adoption effect as of 01.01.2018.

c) Delta-EQ total = Consolidated equity capital including corresponding EQ share on possibly existing non-controlling interests; net after deferred taxes.

d) In the absence of data availability, the total assets as of 01.01.2018 were not used according to the opening balance sheet, but rather, those as of 31.12.2017.

e) S1 2018 values were supplementally consulted.

f) Split of the aggregated amount of deferred taxes across the individual IFRS 9 sub-areas in proportion to the gross values.

g) Published values in US dollars. Euro values have been calculated using the euro reference rate of the ECB as of year-end 2017.

h) Split of the effects of IFRS 9 across non-controlling interests to the individual IFRS 9 sub-areas in proportion to the net values.

i) This value is the residual amount and was calculated from the other Delta-EQ values.

j) Values originate from AR 2017.

k) First-time effect is immaterial, not relevant or non-existent and is therefore indicated with "0".

Figure 1. Change in equity due to the initial adoption of IFRS 9 by FTSE MIB companies (N=28)

The total effect on the equity and the equity ratio across all three of the IFRS 9 sub-areas presented above show that 17 out of the 28 companies (60.7%) indicated an effect. Out of these, six companies (21.4%) had a positive effect and 11 companies (39.3%) had a negative effect. The remaining 11 companies (39.3%) did not show any effect. The effects that had an overall impact on the equity due to the transition from IAS 39 to IFRS

9 spanned from a minimum of €- 147.00 million (Leonardo, Cell I 16) up to a maximum of €+294.00 million (Eni, Cell I 11) and had a range of €441.00 million. The average effect on the equity amounted to €- 3.03 million (mean). In most cases, the majority of the total change in equity came from the adoption of the new impairment requirements (Column D, F and H).

The largest percentage reduction of the equity as a consequence of the transition effects amounted to -3.49% (Leonardo, Cell K 16), which led to a percentage decline in the equity ratio by -2.91% (Leonardo, Cell O 16). The largest percentage increase of the equity amounted to +0.61% (Eni, Cell K 11), which led to a percentage increase in the equity ratio by +0.35% (Eni, Cell O 11).

Migration Paths of Financial Assets of FTSE MIB Companies

In addition to the initial equity effects that occurred with the transition from IAS 39 to IFRS 9, the migration paths of financial assets were also analysed for the investigated FTSE MIB companies. The starting points for the investigation of the migration paths are the respective measurement methods and carrying amounts of the financial assets, which results after the migration of the IAS 39 measurement categories to the IFRS 9 measurement categories. In total, 13 out of the 28 investigated companies (46.4%) have published a detailed table of the information about the migration of financial assets in the respective annual report or interim report. The remaining 15 companies (53.6%) did not provide any, or no sufficient, detailed information to make an analysis of the migration possible.⁹

According to the investigation results presented in Figure 2, the accounting and measurement have not changed for 90.41% of the transferred financial assets of the FTSE MIB companies investigated here in the amount of €140,819 million¹⁰ (no migration). Of these 90.41%, 74.77% remain in measurement category AC¹¹ (Figure 2 No. 1), 14.36% in measurement category FVTPL¹² (No. 2) and 1.28% in measurement category FVTOCI¹³ (No. 3). With the remaining 9.59% of the transferred financial assets, the new classification and measurement requirements led to a different measurement that with the application of IAS 39 (migration) due to the business model and cash flow characteristics. Of these 9.59%, 7.37% were allocated to measurement category AC (No. 7 and 9), 1.27% to measurement category FVTPL (No. 4 and 5) and 0.93% to measurement category FVTOCI (No. 6 and 8).

The respective inward and outward migrations, as well as the difference (net migration movements) of the migration between the respective measurement categories due to the transition from IAS 39 to IFRS 9 are the subject matter of Figure 3. According to this, there was inward migration into the FTVPL measurement category of +1.28% of the total volume of €140,819 million and outward migration of -7.47%, so that net outward migration out of this measurement category was determined in the amount of the difference of -6.19%. In the FVTOCI measurement category, there was a net inward migration of +0.47% of the analysed total volume due to the transition from IAS 39 to IFRS 9. As a consequence of this, in respect of measurement

⁹ These companies are A2A, Brembo, Buzzi Unicem, Exor, Ferrari, Italgas, Leonardo, Mediaset, Moncler, Recordati, Saipem, Salvatore Ferragamo, Snam, STMicroelectronics and YOOX Net-a-Porter Group.

¹⁰ The volume of €140,819 million also comprises the derivatives volume; however, the classification according to IAS 39 and IFRS 9 remained unchanged here.

¹¹ According to IAS 39, this comprises the categories LaR = Loans and Receivables and HtM = Held to Maturity. Regarding details on the IAS 39 categories LaR and HtM, see Henkel (2009, pp. 152 et seqq.).

¹² IAS 39/IFRS 9: FVTPL = Fair Value through Profit and Loss. Regarding details on the IAS 39 category FVTPL, see Henkel (2009, pp. 152 et seqq.).

¹³ According to IAS 39, this comprises the categories AfS = Available for Sale. Regarding details on the IAS 39 category AfS, see Henkel (2009, pp. 152 et seqq.).

category AC, net inward migration of +5.72%¹⁴, i.e., in the total amount of €8,054 million, was proven.

No.	Category IAS 39	Measurement IAS 39	Category/ measurement IFRS 9	Proportion	Change in accounting	Change in carrying amount
1.	LaR/HtM	Amortised costs	AC	74.77%	No	No
2.	HfT/FV-Option	Fair value through profit or loss	FVTPL	14.36%	No	No
3.	AfS	Fair value through other comprehensive income	FVTOCI	1.28%	No	No
No migration				90.41%		
4.	LaR/HtM	Amortised costs	FVTPL	0.81%	Yes	Yes
5.	AfS	Fair value through other comprehensive income	FVTPL	0.46%	Yes	No
6.	LaR/HtM	Amortised costs	FVTOCI	0.84%	Yes	Yes
7.	AfS	Fair value through other comprehensive income	AC	0.00%	Yes	Yes
8.	HfT/FV-Option	Fair value through profit or loss	FVTOCI	0.09%	Yes	No
9.	HfT/FV-Option	Fair value through profit or loss	AC	7.37%	Yes	Yes
Migration				9.59%		
Legend:						
LaR = Loans and Receivables			AC = Amortised Cost			
HtM = Held to Maturity			FVTPL = Fair Value through Profit or Loss			
HfT = Held for Trading			FVTOCI = Fair Value through Other Comprehensive Income			
FV-Option = Fair-Value-Option						
AfS = Available for Sale						

Figure 2. Migration paths of the FTSE MIB companies (N=13, total volume €140,819 million)

¹⁴ In principle, 5.72% corresponds to the 9.59% referred to in Figure 2; however, without the opposing effects still contained in the last number referred to.

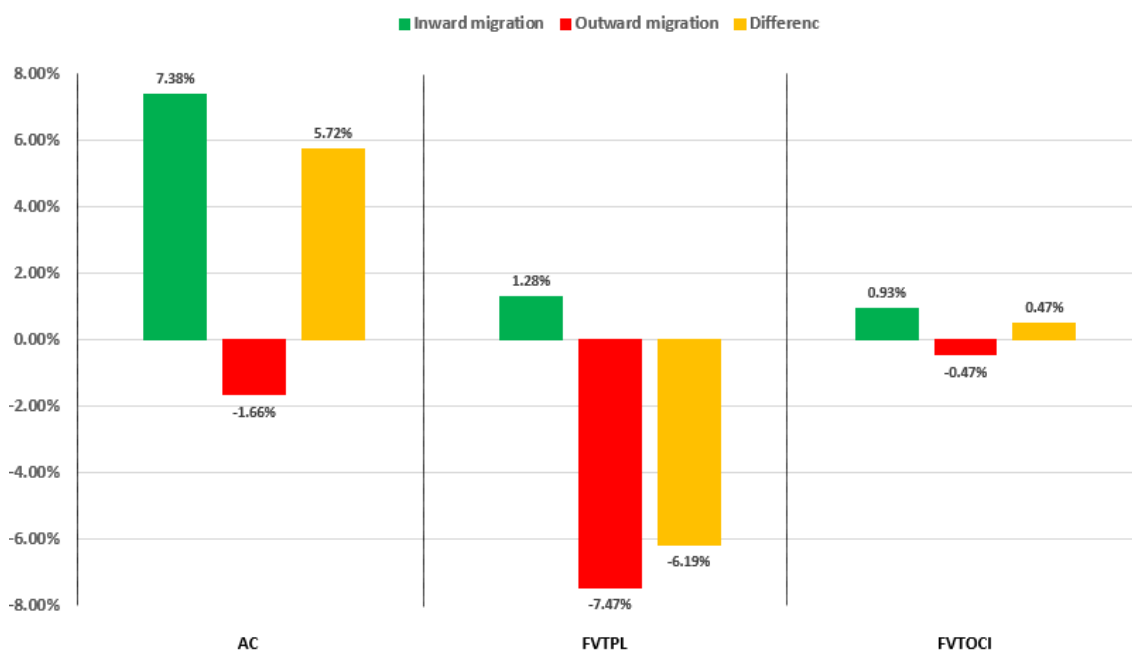


Figure 3. Inward and outward migration of financial assets of FTSE MIB companies based on the three IFRS 9 categories (N=13, total volume €140,819 million)

However, the result is distorted significantly by the outlier, Fiat Chrysler Automobiles (FCA). This distortion is a result of the migration of “cash at banks” and “money market securities”, which were transferred from the FVTPL measurement category to the AC measurement category. If the result is analysed without FCA, the total effects of the migrations would be marginal, at 2.40% (total carrying amount €18,659 million). As a consequence of this, there would be a net inward migration into the FVTPL measurement category of +0.41% (carrying amount €486 million) and into the FVTOCI measurement category of +0.56% (carrying amount €644 million), which results from the net outward migration of measurement category AC of -0.97%.¹⁵

Transition Effects of the DAX 30 Companies

Equity Effects of the DAX 30 Companies

According to the investigation results shown in Figure 4, 13 of the 26 companies (50.0%) showed an equity transition effect from the IFRS 9 classification and measurement sub-area. Out of these, seven companies (26.9%) had a positive effect and six companies (23.1%) had a negative effect. The remaining 13 companies (50.0%) did not show any effect. The effects that had an impact on the equity due to the new classification and measurement requirements spanned from a minimum of €- 57.7 million (Volkswagen, Figure 4 Cell C 27) up to a maximum of €+50.24 million (Thyssenkrupp, Cell C 26) and had a range of €107.94 million. The average effect on the equity amounted to €+0.18 million (mean).

The investigation of the equity effect from the IFRS 9 impairment sub-area concluded that 24 of the 26 companies (92.3%) showed an effect. Out of these, four companies (15.4%) had a positive effect and 20 companies (76.9%) had a negative effect. The remaining two companies (7.7%) did not show any effect. The effects that had an impact on the equity due to the new impairment requirements spanned from a minimum of €- 333.30 million (Volkswagen, Cell E 27) up to a maximum of €+84.00 million (BMW, Cell E 7) and had a

¹⁵ Refer to Figure 9.

range of €17.30 million. The average effect on the equity amounted to €- 35.35 million (mean).

The investigation of the equity effect from the IFRS 9 hedge accounting sub-area concluded that only one company (3.8%) showed an effect. This company is BMW, which showed a positive effect of €+23.00 million (Cell G 7) on the equity from new hedge accounting requirements according to IFRS 9, due to the partially retrospective adoption. The remaining 25 companies (96.2%) did not show any effect from the prospective application. Furthermore, four companies (15.4%)—Deutsche Post, Linde, ProSiebenSat.1 Media and Vonovia—exercised the option to continue the hedge accounting requirements of IAS 39.

The total effect on the equity and the equity ratio across all three of the IFRS 9 sub-areas presented above show that 24 out of the 26 companies (92.3%) indicated an effect. Out of these, five companies (19.2%) had a positive effect and 19 companies (73.1%) had a negative effect. The remaining two companies (7.7%) did not show any effect. The effects that had an overall impact on the equity due to the transition from IAS 39 to IFRS 9 spanned from a minimum of €- 391.00 million (Volkswagen, Cell I 27) up to a maximum of €+101.00 million (BMW, Cell I 7) and had a range of €92.00 million. The average effect on the equity amounted to €- 34.29 million (mean). In most cases, the majority of the total change in equity also came from the adoption of the new impairment requirements (Column D, F and H) for the DAX 30 companies.

The largest percentage reduction of the equity as a consequence of the transition effects amounted to -1.51% (E.ON, Cell K 14), which led to a percentage decline in the equity ratio by -1.33% (E.ON, Cell O 14). With a value of +0.19% (BMW, Cell K 7), the maximum percentage increase of equity was calculated. The largest percentage increase of the equity ratio was +0.14% (Thyssenkrupp, Cell O 26).

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	Formula ^{a)}		C / I		E / I		G / I	C + E + G		I / J		J / L	(J + I) / (L + I)	(N - M) / M	
2	No.	DAX 30 companies	Delta-EQ Classification and Measurement		Delta-EQ Impairment		Delta-EQ Hedge Accounting		Delta-EQ total ^{b), c)}	EQ in 31.12.2017	Delta-EQ	Total assets 31.12.2017	EQ ratio IAS 39 31.12.2017	EQ ratio IFRS 9 01.01.2018 ^{d)}	Delta-EQ ratio
			€ million	%	€ million	%	€ million	%	€ million	€ million	%	€ million	%	%	%
3	1	Adidas	7.00	233%	-4.00	-133%	0.00	0%	3.00	6,017	0.05%	14,019	42.92%	42.93%	0.03%
4	2	BASF	0.00	0%	-30.00	100%	0.00	0%	-30.00	34,756	-0.09%	78,768	44.12%	44.10%	-0.05%
5	3	Bayer	7.59	e)	-13%	-67.59	e)	113%	0.00	36,861	-0.16%	75,087	49.09%	49.05%	-0.08%
6	4	Beiersdorf	0.00	0%	0%	-2.00	100%	0.00	0%	5,125	-0.04%	8,205	62.46%	62.45%	-0.01%
7	5	BMW	-6.00	-6%	84.00	83%	23.00	23%	101.00	54,107	0.19%	195,506	27.68%	27.71%	0.13%
8	6	Continental	-0.71	b)	-13%	6.21	f)	113%	0.00	16,290	0.03%	37,440	43.51%	43.52%	0.02%
9	7	Daimler	16.00	0%	-47%	-50.00	147%	0.00	0%	65,159	-0.05%	255,345	25.52%	25.51%	-0.04%
10	8	Deutsche Börse	-4.87	f)	116%	0.67	f)	-16%	0.00	4,959	-0.08%	135,141	3.67%	3.67%	-0.08%
11	9	Deutsche Lufthansa	0.00	0%	0%	-8.00	100%	0.00	0%	9,110	-0.09%	35,778	25.46%	25.45%	-0.07%
12	10	Deutsche Post	0.00	0%	0%	-44.00	100%	0.00	0%	12,903	-0.34%	38,672	33.37%	33.29%	-0.23%
13	11	Deutsche Telekom	-13.00	h)	8%	-159.00	h)	92%	0.00	42,470	-0.40%	141,334	30.05%	29.96%	-0.28%
14	12	E.ON	-34.26	f)	34%	-66.74	f)	66%	0.00	6,708	-1.51%	95,950	11.99%	11.83%	-1.33%
15	13	Fresenius	25.00	i)	-132%	-44.00	232%	0.00	0%	21,720	-0.09%	53,133	40.88%	40.86%	-0.05%
16	14	Fresenius Medical Care	0.00	0%	0%	-5.07	100%	0.00	0%	10,828	-0.05%	24,025	45.07%	45.06%	-0.03%
17	15	HeidelbergCement	2.70	0%	-40%	-9.40	140%	0.00	0%	15,987	-0.04%	34,558	46.26%	46.25%	-0.02%
18	16	Henkel	0.00	0%	0%	-13.00	100%	0.00	0%	15,647	-0.08%	28,339	55.21%	55.19%	-0.04%
19	17	Infineon Technologies	0.00	i, k, p)	0%	0.00	100%	0.00	0%	6,446	0.00%	10,879	59.25%	59.25%	0.00%
20	18	Linde	0.00	l, p)	0%	9.00	0%	0%	0%	9.00	0%	15,041	0.06%	45.03%	0.03%
21	19	Merck	0.00	0%	0%	-15.00	100%	0.00	0%	14,066	-0.11%	35,621	39.49%	39.46%	-0.06%
22	20	ProSiebenSat.1 Media	0.00	0%	0%	-1.00	100%	0.00	0%	1,252	-0.08%	6,569	19.06%	19.05%	-0.06%
23	21	RWE	12.67	e)	-67%	-31.67	e)	167%	0.00	11,991	-0.16%	69,059	17.36%	17.34%	-0.13%
24	22	SAP	0.00	0%	0%	-25.00	100%	0.00	0%	25,515	-0.10%	42,484	60.06%	60.03%	-0.04%
25	23	Siemens	0.00	i, k, p)	0%	-65.00	100%	0.00	0%	48,046	-0.14%	138,915	34.59%	34.56%	-0.09%
26	24	ThyssenKrupp	50.24	j, m, n)	1005%	-45.24	j, m, n)	-905%	0.00	3,203	0.16%	34,426	9.30%	9.32%	0.14%
27	25	Volkswagen	-57.70	o)	15%	-333.30	o)	85%	0.00	109,077	-0.36%	422,193	25.84%	25.77%	-0.27%
28	26	Vonovia	0.00	0%	0%	0.00	0%	0%	0%	16,691	0.00%	37,516	44.49%	44.49%	0.00%

Legend:

EQ = Equity, RE = Retained Earnings, OCI = Other Comprehensive Income, AR = Annual report, S1 = Semi-annual report, Q1 = Quarterly report for the 1st quarter

red Number = lowest value in a column; green Number = highest value in a column

a) The formulas indicate how the values in the respective column were calculated.

b) Initial adoption effect as of 01.01.2018.

c) Delta-EQ total = Consolidated equity capital including corresponding EQ share on possibly existing non-controlling interests; net after deferred taxes.

d) In the absence of data availability, the total assets as of 01.01.2018 were not used according to the opening balance sheet, but rather, those as of 31.12.2017.

e) Published values before deferred taxes. The deferred tax rate has been calculated on the basis of the entire IFRS 9 net and gross effect.

f) Split of the aggregated amount of deferred taxes across the individual IFRS 9 sub-areas in proportion to the gross values.

g) This value is the residual amount and was calculated from the other Delta-EQ values.

h) Values were not stated so explicitly in the report; but appear to be the most plausible.

i) Assumption that € 6 million of deferred taxes exclusively apply to the IFRS 9 Classification and Measurement sub-area.

j) The company has a financial year that deviates from the calendar year and prepared the IFRS 9 opening balance sheet as of 01.10.2018.

k) S1 2019 and AR 2019 values were supplementally consulted.

l) Values originate from Q1 2018 and S1 2018.

m) AR 2018/2019 values were supplementally consulted.

n) Split of the effects of IFRS 9 across non-controlling interests to the individual IFRS 9 sub-areas in proportion to the net values.

o) Classification and Measurement -57.7 (RE ((230+9) × 0,7) - OCI 225); Hedge Accounting 0 (RE -119 + OCI 119 (63 + 56)); Impairment -333.3 (-391 - (-57.7) + 0).

p) First-time effect is immaterial, not relevant or non-existent and is therefore indicated with "0".

Figure 4. Change in equity due to the initial adoption of IFRS 9 of DAX 30 companies (N=26)

Migration Paths of Financial Assets of DAX 30 Companies

In addition to the initial equity effects that occurred with the transition from IAS 39 to IFRS 9, the migration paths of financial assets were also analysed for the investigated DAX 30 companies. The starting points for the investigation are also the respective measurement methods and carrying amounts of the financial assets, which results after the migration of the IAS 39 measurement categories to the IFRS 9 measurement categories. In total, 25 out of the 26 investigated companies (96.2%) have published a detailed table of the information about the migration of financial assets in the respective annual report or interim report. Only Deutsche Post did not provide any sufficiently detailed information to make an analysis of the migration possible.

According to the investigation results presented in Figure 5, the accounting and measurement have not changed for 94.14% of the transferred financial assets of the DAX 30 companies investigated here in the amount of €751,287 million¹⁶ (no migration). Of these 94.14%, 75.62% remain in measurement category AC¹⁷

¹⁶ The volume of €751,287 million also comprises the derivatives volume; however, the classification according to IAS 39 and

(Figure 5 No. 1), 14.85% in measurement category FVTPL¹⁸ (No. 2) and 3.67% in measurement category FVTOCI¹⁹ (No. 3). With the remaining 5.86% of the transferred financial assets, the new classification and measurement requirements led to a different measurement that with the application of IAS 39 (migration) due to the business model and cash flow characteristics. Of these 5.86%, 0.59% were allocated to measurement category AC (No. 7 and 9), 4.39% to measurement category FVTPL (No. 4 and 5) and 0.88% to measurement category FVTOCI (No. 6 and 8).

No.	Category IAS 39	Measurement IAS 39	Category/ measurement IFRS 9	Proportion	Change in accounting	Change in carrying amount
1.	LaR/HtM	Amortised costs	AC	75.62%	No	No
2.	HfT/FV-Option	Fair value through profit or loss	FVTPL	14.85%	No	No
3.	AfS	Fair value through other comprehensive income	FVTOCI	3.67%	No	No
No migration				94.14%		
4.	LaR/HtM	Amortised costs	FVTPL	0.52%	Yes	Yes
5.	AfS	Fair value through other comprehensive income	FVTPL	3.87%	Yes	No
6.	LaR/HtM	Amortised costs	FVTOCI	0.87%	Yes	Yes
7.	AfS	Fair value through other comprehensive income	AC	0.59%	Yes	Yes
8.	HfT/FV-Option	Fair value through profit or loss	FVTOCI	0.01%	Yes	No
9.	HfT/FV-Option	Fair value through profit or loss	AC	0.00%	Yes	Yes
Migration				5.86%		
Legend:						
LaR = Loans and Receivables			AC = Amortised Cost			
HtM = Held to Maturity			FVTPL = Fair Value through Profit or Loss			
HfT = Held for Trading			FVTOCI = Fair Value through Other Comprehensive Income			
FV-Option = Fair-Value-Option						
AfS = Available for Sale						

Figure 5. Migration paths of the DAX 30 companies (N=25, total volume €751,287 million)

The respective inward and outward migrations, as well as the difference (net migration movements) of the migration between the respective measurement categories due to the transition from IAS 39 to IFRS 9 are the subject matter of Figure 6. According to this, there was inward migration into the AC measurement category of

IFRS 9 remained unchanged here.

¹⁷ According to IAS 39, this comprises the categories LaR = Loans and Receivables and HtM = Held to Maturity. Regarding details on the IAS 39 categories LaR and HtM, see Henkel (2009, pp. 152 et seqq.).

¹⁸ IAS 39/IFRS 9: FVTPL = Fair Value through Profit and Loss. Regarding details on the IAS 39 category FVTPL, see Henkel (2009, pp. 152 et seqq.).

¹⁹ According to IAS 39, this comprises the categories AfS = Available for Sale. Regarding details on the IAS 39 category AfS, see Henkel (2009, pp. 152 et seqq.).

+0.59% of the total volume of €751,287 million and outward migration of -1.39%, so that net outward migration out of this measurement category occurred in the amount of the difference of -0.80%. In the FVTOCI measurement category, there was a net outward migration of -3.58% of the analysed total volume due to the transition from IAS 39 to IFRS 9. As a consequence of this, in respect of measurement category FVTPL, net inward migration of +4.38%²⁰, i.e., in the total amount of €2,906 million, was proven.

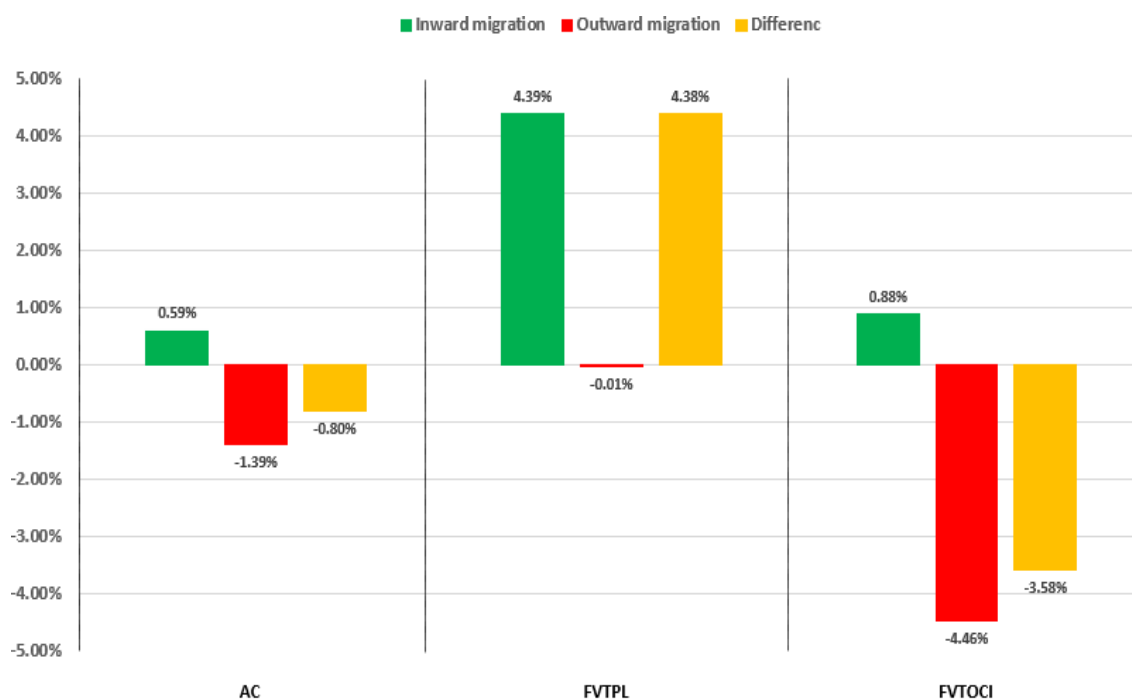


Figure 6. Inward and outward migration of financial assets of DAX 30 companies based on the three IFRS 9 categories (N=25, volume €751,287 million)

However, at the individual company level, there were partly significant deviations from the mean values presented here. For example, Infineon Technologies and RWE migrated approx. 16% and 18% of their financial assets from AfS to FVTPL and HeidelbergCement, approx. 10% from LaR/HtM to FVTPL. In contrast, Thyssenkrupp and Deutsche Telekom migrated approx. 12% and 22% of their financial assets from LaR/HtM to FVTOCI.

Comparison of the Transition Effects of the FTSE MIB and DAX 30 Companies

Comparison of the Equity Effects of the FTSE MIB and DAX 30 Companies

In the comparison between the investigated companies from both stock exchange segments, it appears that a larger proportion of the FTSE MIB companies (67.9%, 19 out of 28) do not show any equity transition effect due to the new classification and measurement requirements of IFRS 9, in comparison to the DAX 30 companies (50.0%, 13 out of 26). However, the companies in both stock exchange segments had a positive transition effect on the equity for the most part (FTSE MIB: 25.0%, seven out of 28 and DAX 30: 26.9%, seven out of 26). A negative transition effect was only generated with 7.1% (two out of 28) of the FTSE MIB companies and 23.1% (six out of 26) of the DAX 30 companies. The mean (the range) with the FTSE MIB companies amounted to

²⁰ In principle, 4.38% corresponds to the 5.86% referred to in Figure 5; however, without the opposing effects still contained in the last number referred to.

€-27.90 million (~~€~~53.60 million) and €-0.18 million (~~€~~07.94 million) with the DAX 30 companies.

A comparison of the implications of the new impairment requirements of IFRS 9 between the investigated companies from both stock exchange segments shows that on the basis of the retrospective transition to the 3-stage model, a larger proportion of the DAX 30 companies (76.9%, 20 out of 26) in comparison to the FTSE MIB companies (42.9%, 12 out of 28) showed a negative transition effect on the equity. The biggest difference is shown between the companies in both stock exchange segments, in which there was not equity transition effect (DAX 30: 7.7%, two out of 26 and FTSE MIB: 50.0%, 14 out of 28). A positive transition effect was only generated with 15.4% (four out of 26) of the DAX 30 companies and 7.1% (two out of 28) of the FTSE MIB companies. The mean (the range) with the FTSE MIB companies amounted to ~~€~~+30.93 million (~~€~~359.50 million) and €- 35.35 million (~~€~~17.30 million) with the DAX 30 companies.

The majority of the DAX 30 companies (84.6%, 22 out of 26) and the FTSE MIB companies (78.6%, 22 out of 28) adopted the new hedge accounting requirements of IFRS 9. In total, only one company showed an equity transition effect (BMW, €+23.00 million) due to the partially retrospective adoption of the hedge accounting according to IFRS 9.

An overview of the equity transition effects across all three of the previously presented IFRS 9 sub-areas shows that a larger proportion of the DAX 30 companies (73.1%, 19 out of 26) showed a negative total equity transition effect than the proportion of the FTSE MIB companies (39.3%, 11 out of 28). In contrast to this, it is shown that a larger proportion of the FTSE MIB companies (39.9%, 11 out of 28) did not have a total equity transition effect in comparison to the DAX 30 companies (7.7%, two out of 26). A positive total equity transition effect was only generated with 21.4% (six out of 28) of the FTSE MIB companies and 19.2% (five out of 26) of the DAX 30 companies.

As the total change in equity, with the FTSE MIB companies, a mean (a range) of € - 3.03 million (~~€~~41.00 million) and with the DAX 30 companies, a mean of € - 34.29 million (~~€~~92.00 million) was calculated. With the FTSE MIB companies, as well as the DAX 30 companies, in most cases, the largest proportion of the total change in equity comes from the adoption of the new impairment requirements of IFRS 9. However, it appears that the DAX 30 companies had a larger number of effects in comparison to the FTSE MIB companies.

In respect of the equity ratio (refer to Figure 7), which is an important key performance indicator for balance sheet analysis and consequently also for refinancing, the transition to IFRS 9 has a minimum (maximum) effect of -2.91% (+0.35%) on the FTSE MIB companies and a minimum (maximum) effect of -1.33% (+0.14%) on the DAX 30 companies. The mean (the range) with the FTSE MIB companies was at -0.12% (3.27%) and with the DAX 30 companies, it was at -0.10% (1.47%).

The extent to which the calculated transition effects as of 1 January 2018 are classifiable as being material in relation to the change of equity/equity ratio ultimately depends on the underlying definition of materiality. Even if the materiality limit of 1% of equity calculated by McKee and Eilifsen²¹ is used as a basis, nearly all changes to the equity that occurred within the companies investigated here due to the transition from IAS 39 to IFRS 9 can be classified as being immaterial. The only two exceptions are Leonardo in FTSE MIB (Delta-EQ: -3.49% and Delta-EQ ratio: -2.91%) and E.ON in DAX 30 (Delta-EQ: -1.51% and Delta-EQ ratio: -1.33%), which are above

²¹ Regarding the materiality limit of 1% of equity, see McKee & Eilifsen (2000, p. 55) and already Leslie (1985, pp. 20 et seq.). On the basis of 42 studies on this topic, Toebe & Lørsen (2012, p. 1205) in conclusion, a range (in %) of 0.5 to 3.0 for the materiality of the equity.

1% limit.

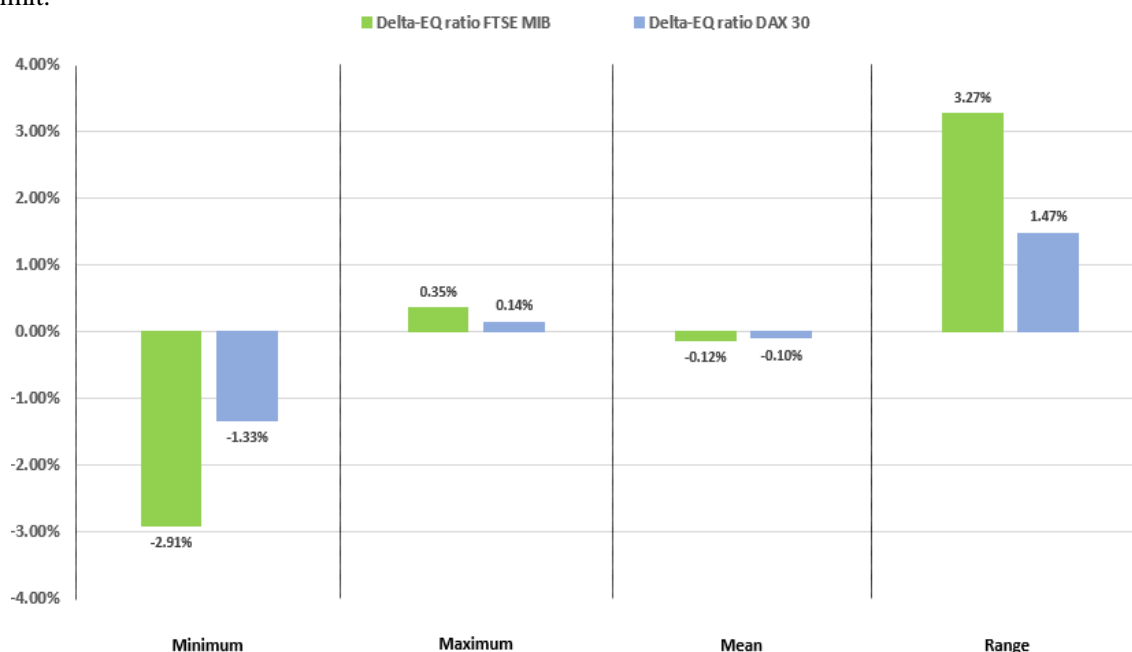


Figure 7. Comparison of the change to the equity ratios (in %) on the basis of the initial adoption of IFRS 9 of the FTSE MIB companies (N=28) and DAX 30 companies (N=26)

Comparison of the Migration Paths of Financial Assets of FTSE MIB and DAX 30 Companies

A comparison of the implications of the migration paths of financial assets between the investigated companies from both stock exchange segments shows that a larger proportion of the DAX 30 companies (96.2%, 25 out of 26) in comparison to the FTSE MIB companies (46.4%, 13 out of 28) has published a detailed table of the information about the migration paths in the respective annual report or interim report. Overall, the transferred financial assets of the DAX 30 companies showed a total carrying amount of €751,287 million in comparison to €140,819 million with the FTSE MIB companies.

According to Figure 8, the accounting and measurement of the companies investigated here in both stock exchange segments of more than 90.0% of the transferred financial assets have not changes (no migration). These values show a similar percentage structure (Figure 8 No. 1-3).

A comparison of the implications of the migrations of financial assets in both stock exchange segments shows that a larger proportion of the FTSE MIB companies (9.59%) in comparison to the DAX 30 companies (5.86%) led to a different measurement. However, the net inward and outward migrations between the respective categories in both stock exchange segments, which occurred due to the transition from IAS 39 to IFRS 9, show different percentage changes, as shown in Figure 9 below. As a consequence of this, the initial adoption of IFRS 9 led to a larger average increase in the measurement of financial assets, which are measured at the fair value through profit or loss (FVTPL),²² with the DAX 30 companies in comparison to the FTSE MIB companies (without the outlier FCA²³). Furthermore, with the FTSE MIB companies the transition from

²² In general, this measurement method leads to an increase in the volatility of the result, as all changes to the fair value must be posted directly in the P&L, see Henkel (2010, p. 147); Schmitz & Huthmann (2012, p. 73).

²³ In particular, the result of the Italian lead index is distorted significantly by Fiat Chrysler Automobiles (FCA). If the result is analysed without the outlier FCA, the total effects of the migrations would be marginal, at 2.40% (total carrying amount €18,659 million). As a consequence of this, there would be a marginal net inward migration into the measurement category FVTPL of

IAS 39 to IFRS 9 also resulted in an inward migration for the measurement of financial assets, which are measured at the fair value through other comprehensive income (FVTOCI). In absolute numbers, for the investigated DAX 30 companies, which means growth of €2,906 million of financial assets measured at fair value through profit or loss. And with the investigated FTSE MIB companies, growth of €486 million of financial assets measured at fair value through profit or loss and €644 million of financial assets measured at fair value through other comprehensive income. However, at the individual company level, there were partly significant deviations from the mean values presented here in both of the stock exchange segments.

No.	Category IAS 39	Measurement IAS 39	Category/ measurement IFRS 9	Proportion FTSE MIB	Proportion DAX 30	Change in accounting	Change in carrying amount
1.	LaR/HtM	Amortised costs	AC	74.77%	75.62%	No	No
2.	HfT/FV-Option	Fair value through profit or loss	FVTPL	14.36%	14.85%	No	No
3.	AfS	Erfolgsneutral zum beizulegenden Zeitwert	FVTOCI	1.28%	3.67%	No	No
No migration				90.41%	94.14%		
4.	LaR/HtM	Amortised costs	FVTPL	0.81%	0.52%	Yes	Yes
5.	AfS	Fair value through other comprehensive income	FVTPL	0.46%	3.87%	Yes	No
6.	LaR/HtM	Amortised costs	FVTOCI	0.84%	0.87%	Yes	Yes
7.	AfS	Fair value through other comprehensive income	AC	0.00%	0.59%	Yes	Yes
8.	HfT/FV-Option	Fair value through profit or loss	FVTOCI	0.09%	0.01%	Yes	No
9.	HfT/FV-Option	Fair value through profit or loss	AC	7.37%	0.00%	Yes	Yes
Migration				9.59%	5.86%		
Legend:							
LaR = Loans and Receivables			AC = Amortised Cost				
HtM = Held to Maturity			FVTPL = Fair Value through Profit or Loss				
HfT = Held for Trading			FVTOCI = Fair Value through Other Comprehensive Income				
FV-Option = Fair-Value-Option							
AfS = Available for Sale							

Figure 8. Comparison of the migration paths of the FTSE MIB companies (N=13, total volume €140,819 million) and DAX 30 companies (N=25, total volume €751,287 million)

The extent to which the measurement of financial instruments, which are measured at fair value through profit or loss (FVTPL) can be material in view of the future IFRS financial statements, ultimately depends on how high the actual change in value through profit or loss of these holdings is in a period in absolute and relative terms, in proportion to the equity and the P&L. This, in turn, depends on the amount of the holding of these financial instruments, whether and to what extent this holding is economically hedged and how strong the fair value change is in a reporting period.

For example, if Scenario 1 below were assumed, according to which the financial instruments to additionally be measured through profit or loss were all shares that were purchased in December 2010 at the highest level, then

+0.41% and into the measurement category FVTOCI of +0.56%, which results from the net outward migration of measurement category AC of -0.97% (Figure 9 FTSE MIB (without FCA)).

these would have lost value of approx. 30% in the first quarter of 2020, due to the COVID-19 pandemic. It is furthermore assumed that this decline in the share price would not have been hedged by share derivatives, for example, and thereby reduces the net profit for the year to the full extent. If it is also assumed that an equity ratio of 10% is generated, this Scenario 1 would have the following average effects on the investigated holdings. The effects on the tax balance sheet and P&L are analogous to this, so that no deferred taxes are incurred.

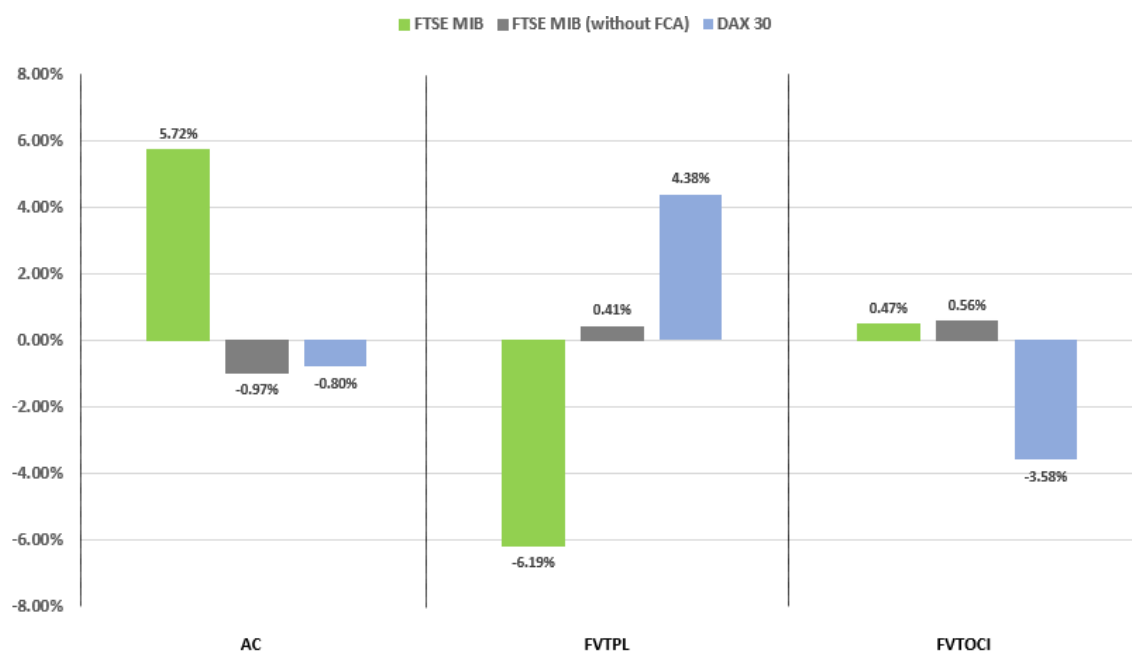


Figure 9. Comparison of the migration paths of the net inward and outward migration of financial assets of the FTSE MIB companies (N=13, total volume €140,819 million) and DAX 30 companies (N=25, total volume €751,287 million) on the basis of the three IFRS 9 categories

FTSE MIB: The identified additional holding of financial instruments that are measured at the fair value through profit or loss, amounts to an aggregate sum of €486 million (+0.41% of €118,659 million).²⁴ The corresponding aggregated equity amounts to €69,061 million²⁵ and the net profit for the year would amount to €6,906.1 million, with an assumed return on equity of 10%. An assumed price drop of 30% on €486 million corresponds to an amount of €145.8 million. This would result in a change to the aggregated equity of 0.08% (145.8/169,061) and the net profit for the year of 0.86% (145.8/16,906.1).

DAX 30: The identified additional holding of financial instruments that are measured at the fair value through profit or loss, amounts to an aggregate sum of €32,906 million (+4.38% of €751,287 million). The corresponding aggregated equity amounts to €597,072 million²⁶ and the net profit for the year would amount to €9,871.8 million, with an assumed return on equity of 10%. An assumed price drop of 30% on €32,906 million corresponds to an amount of €9,871.8 million. This would result in a change to the aggregated equity of 1.65% (9,871.8/597,072) and the net profit for the year of 16.53% (9,871.8/59,707.2).

²⁴ Analysis of the result without the outlier Fiat Chrysler Automobiles (FCA). Refer to Figure 9.

²⁵ Refer to Figure 1, Total Column J, however, without A2A (Cell J 3), Brembo (Cell J 6), Buzzi Unicem (Cell J 7), Exor (Cell J 12), Ferrari (Cell J 13), Italgas (Cell J 15), Leonardo (Cell J 16), Mediaset (Cell J 18), Moncler (Cell J 19), Recordati (Cell J 22), Saipem (Cell J 23), Salvatore Ferragamo (Cell J 24), Snam (Cell J 25), STMicroelectronics (Cell J 26), YOOX Net-a-Porter Group (Cell J 30) and the outlier Fiat Chrysler Automobiles (Cell J 14).

²⁶ Refer to Figure 4, Total Column J, however, without Deutsche Post (Cell J 12).

With a materiality limit of, e.g., 1%²⁷ on the equity and 10% (Kuetting, Weber, Keßler, & Metz, 2007) on the net profit for the year, in this Scenario 1 it would be concluded that the result in respect of the FTSE MIB would be classified as immaterial and the DAX 30 as material.

In Scenario 2, it is assumed that the additional financial instruments to be measured at fair value through profit and loss are all fixed-interest bonds with the following basic parameters: term 10 years, coupon 0.75%, current market interest rate 0.75%, price 100%, modified duration 9.6, market interest rate increase by 100 basis points to 1.75%. In this case, the financial instrument would fall by 9.6%.²⁸ It is furthermore assumed that this decline in the bond price would not have been hedged by interest derivatives, for example, and thereby reduces the net profit for the year to the full extent. If it is also assumed that an equity ratio of 10% is generated, this Scenario 2 would have the following average effects on the investigated holdings. The effects on the tax balance sheet and P&L are also analogous to this, so that no deferred taxes are incurred.

FTSE MIB: The identified additional holding of financial instruments that are measured at the fair value through profit or loss, amounts to an aggregate sum of €486 million (+0.41% of €18,659 million). The corresponding aggregated equity amounts to €169,061 million and the net profit for the year would amount to €16,906.1 million, with an assumed return on equity of 10%. An assumed price drop of 9.6% on €486 million corresponds to an amount of €45.656 million. This would result in a change to the aggregated equity of 0.02% (46.656/169,061) and the net profit for the year of 0.27% (46.656/16,906.1).

DAX 30: The identified additional holding of financial instruments that are measured at the fair value through profit or loss, amounts to an aggregate sum of €32,906 million (4.38% of €751,287 million). The corresponding aggregated equity amounts to €597,072 million and the net profit for the year would amount to €59,707.2 million, with an assumed return on equity of 10%. An assumed price drop of 9.6% on €32,906 million corresponds to an amount of €3,158.976 million. This would result in a change to the aggregated equity of 0.52% (3,158.976/597,072) and the net profit for the year of 5.29% (3,158.976/59,707.2).

With a materiality limit of, e.g., 1% on the equity and 10% on the net profit for the year, in this Scenario 2 it would be concluded that the result in both stock exchange segments would be classified as immaterial.

These examples are only intended to serve the purpose of obtaining a “feeling” for the possible volatility of the additional holding of financial instruments, which are measured at the fair value through profit or loss. It is also noteworthy that the selected scenarios have disproportionately strong price movements. A with hedging strategies and/or consideration of deferred taxes (with price movements over the acquisition costs), the results are also lower, *ceteris paribus*. As previously demonstrated, the assessment of the material in an individual case depends on numerous factors and a generally applicable statement cannot be made.

Summary

For the financial years from 2018, the new standard for accounting of financial instruments, IFRS 9, was applicable for the first time. The changes related to the classification and measurement, impairment and hedge accounting. In summary and in view of the initially asked questions, the following can be stated.

In the overall analysis of the absolute change in equity across all of the three IFRS 9 sub-areas presented above, with the FTSE MIB companies, a mean (a range) of €- 3.03 million (€441.00 million) and with the

²⁷ Refer to Footnote 21.

²⁸ A modified duration of 9 indicates that a debt capital instrument loses value of 9 percentage points with a market interest rate increase of 100 basis points (equal to 1 percentage point).

DAX 30 companies, a mean of €- 34.29 million (€492.00 million) was calculated. The new classification and measurement requirements in both stock exchange segments, for the most part, led to a positive equity transition effect, if this occurred on the basis of the business model and cash flow characteristics. In contrast to this, the new impairment requirements, as intended by the IASB, led to an increase in the impairment due to the introduction of the new impairment model, which led to a negative equity transition effect in most cases and accounts for a majority of the effects overall. From the adoption of the new hedge accounting requirements, only marginal effects were observed. However, the DAX 30 companies had significantly greater effects in the individual IFRS 9 sub-areas overall than the FTSE MIB companies. The median equity ratio (the mean) declined marginally in percentage points with the FTSE MIB companies -0.07 (-0.02), as well as with the DAX 30 companies -0.02 (-0.02).²⁹

With regard to the migration of financial assets, it has been shown that the measurement of more than 90% of financial assets of the FTSE MIB and DAX 30 companies have not changed as a result of the transition from IAS 39 to IFRS 9. In both stock exchange segments, the measurement net at fair value (through profit or loss) increased (FTSE MIB companies: FVTPL +0.41% and FVTOCI +0.56%;³⁰ DAX 30 companies: FVTPL +4.38%).³¹

The extent to which the calculated transition effects as of 1 January 2018 are classifiable as being material in relation to the change of equity/equity ratio ultimately depends on the underlying definition of materiality. Even if the materiality limit of 1%³² of equity calculated by McKee and Eilifsen is used as a basis, nearly all changes to the equity that occurred within the companies investigated here due to the transition from IAS 39 to IFRS 9 can be classified as being immaterial.³³ The extent to which the measurement of financial instruments, which are measured at their fair value through profit or loss (FVTPL) can be material in view of the future IFRS financial statements, ultimately depends on how high the actual change in value through profit or loss of these holdings is in a period in absolute and relative terms, in proportion to the equity and the P&L. This, in turn, depends on the amount of the holding of these financial instruments, whether and to what extent this holding is economically hedged and how strong the fair value change is in a reporting period.³⁴ Further analyses will be required for this in the future.

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²⁹ An investigation among 26 SDAX companies concluded that 57.7% (15 out of 26) showed a decline and 42.3% (11 out of 26) showed an increase in equity. The average equity effect (mean) amounted to 0.04%, see Keitz & Grote (2019, pp. 131 and 136). An investigation among 54 MDAX companies concluded that 44.4% (24 out of 54) showed a decline and 27.8% (15 out of 54) showed an increase of equity. The average equity effect (mean) amounted to -0.33%, see Henkel (2020, p. 524). In most cases, the majority of the total equity transition effect in the SDAX and MDAX results from the IFRS 9 impairment sub-area. An investigation of 78 European banks concluded that the average effect on the equity (mean) amounted to -3.6% and for the most part, is due to the IFRS 9 impairment sub-area, see Loew et al. (2019, p. 63).

³⁰ Analysis of the result without the outlier Fiat Chrysler Automobiles (FCA).

³¹ The investigation of the SDAX and MDAX concluded that out of the migrated financial assets, on average, more are value at FVTPL, see Keitz & Grote (2019, p. 133) and Henkel (2020, p. 529). The investigation of 78 European banks concluded that most of the 6.5% migrated financial assets were transferred from AC to FVTPL, see Loew et al. (2019, p. 64).

³² Refer to Footnote 21.

³³ The only two exceptions are Leonardo in FTSE MIB (Delta-EQ: -3.49% and Delta-EQ ratio: -2.91%) and E.ON in DAX 30 (Delta-EQ: -1.51% and Delta-EQ ratio: -1.33%), which are above 1% limit.

³⁴ Regarding the simulation results of two alternative scenarios, refer to Section "Comparison of the Migration Paths of Financial Assets of FTSE MIB and DAX 30 Companies".

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