IFRS 9: Initiator of Changes in Management Accounting Processes

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From 1st of January 2018 all financial and non-financial organizations (except insurance companies), which have financial instruments, such as cash, receivables, debt or equity securities, in the statements of financial positions, had to replace the accounting under IAS 39 with IFRS 9. The replacement changes and has an impact on accounting processes, accounting routines, accounting policies, decision-making, and financial statements. The impact is also on shareholder value. In research on the case study of the Pension Company in Slovenia, we anticipate the changes because of the replacement. The purpose of the article is to present the changes in processes, decision-making, and accounting. Our contribution is to the growing literature on accounting, particularly on the replacement of IAS 39 with IFRS 9 and management accounting. It is important to understand the changes that the replacement brings to the corporate governance of the organizations.

Key words: international financial reporting standards, IAS 39, IFRS 9, accounting change, accounting processes, financial statements
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Introduction

In July 2014, the IASB (International Accounting Standards Board) published the final version of international financial reporting standard IFRS 9 – Financial instruments, which replaced the standard IAS 39 on 1st January 2018. The replacement changed the accounting processes, accounting and financial statements in the organizations, which uses international financial reporting standards, all over the world because of the novelties that IFRS 9 defines.

New IFRS 9 introduced a novel approach on a principle basis and strengthens the role of management accounting. IFRS 9 requires an accounting of the expected credit loss for financial instruments in an organization with the forward-looking approach. The forward-looking approach is a novelty in accounting. The information and communication technologies of accounting systems should automatically support the calculation of expected credit losses (ECL) and should do the advanced calculations as well as present the effects of the current and future business performance that support decision making for management in advance at least on each reporting date or earlier.

The shift of accounting to a strategic level is essential because of the impact of ECL on the statement of profit and loss. In organizations, the transition from the operational to the strategic level of management accounting should occur and the accounting gains in the importance again when introducing IFRS 9. The regulators (EBA, EIOPA, and ESMA) support this transition (European Banking Authority 2017; Benston, Bromwich, and Wagenhofer 2006; Huian 2012; Onali and Ginesti 2014).

In the past, the accounting professionals and widespread 20th century's definition was that the accounting is an impartial and objective observer of independent economic facts (Solomons 1991, 28). In the 21st century, it still provides a true and fair value of financial data and upgrades the accounting to management accounting, which provides support to the managers at business planning, and preparation for business decisions in uncertain economic conditions (Horvat and Korošec 2014, 33). It participates in the planning of strategic decisions as well. With the introduction of IFRS 9, the management accounting is strengthened because of constant calculation of ECL before the decision is taken.

The purpose of the paper is to discuss the changes, which might and should occur because of the replacement of the standard and highlight the changes within the organization in its processes, structures and, in the end, in a significant impact on financial statements.

The paper is designed as a literature review and the case study of a Pension Company operating in Slovenia, one of the smaller member countries of the European Union. The paper explains changes in strategic planning and management accounting in financial institutions and recommends solutions to their management teams.

The paper is organized as followed: in section 2 we review the literature about the replacement of standard financial instruments, in section 3 we present methodology, then in section 4 we present and discuss the replacement of IAS 39 with IFRS 9, point out the key issues of implementation and stemming from the change, present the different business models of IFRS 9 and discuss the changes in accounting processes in pension company. In conclusion, we discuss replacement advantages and further possibilities of research.

Literature Review

IAS 39 was first introduced in October 1984 and reissued in December 2003 with the application in 2005 and was rule-based standard (it defined the accounting rules). It determined the accounting for financial instruments until the 31st of December 2017 except for insurers, which can postpone the accounting under IAS 39 until the 1st of January 2022, when the IFRS 17 for insurance contract will be introduced. IAS 39 determined four categories for financial instruments such as financial assets or liabilities. Each financial instrument had been classified at fair value through profit and loss (FVTPL), held to maturity (HTM), loans and receivables, and available for sale (AFS). The category of financial instrument was the basis for measurement which was at fair value through profit and loss for FVTPL category, or at fair value through other comprehensive income for AFS category or at amortized cost using effective interest method for HTM, loans and receivables categories (European Commission 2016, 272). Financial instruments should be impaired only if the objective evidence existed as a result of one or more events that had an impact on estimated cash flows (European Commission 2016, 283, 284).

After the financial crisis in 2008, the criticism of rules-based standards stresses out that IAS 39 may not be in line with environmental changes or with innovative transactions, where the rules are useless (Benston, Bromwich, and Wagenhofer 2006, 169). The new IFRS 9 is principle-based and the criticism of the principle-based standard relates to the lack of operational guidelines (Benston, Bromwich, and Wagenhofer 2006, 169). With the introduction of a principle-based standard IFRS 9, the comparison among organizations is no longer possible, because such standard requires determination of the assumptions and judgments made by the organization with the confirmation and verification from regulators and auditors (Benston, Bromwich, and Wagenhofer 2006). The same financial instrument could be measured differently in different organizations because the risk appetite of each organization is different. IFRS 9 introduced the accounting by the principles (IASB 2016, A321), although (Scapens 1994, 310) the rules allow more stable and predictable decisions that are taken in an unstable environment.

Some authors (Huian 2012, 28; Kusano and Sanada 2019; Frèrejacque 2014, 9) summarizes that IAS 39 was one of the causes of the financial crisis in 2008. The G20, the ECOFIN COUNCIL and the Committee on Financial Stability proposed the improvements of the stan-

Category	IAS 39	IFRS 9
The purpose of the standard	Applies to all financial instruments, with a few exceptions.	
The initial recognition	When the organization becomes a party to the contractual provisions.	
Initial measurement	The fair value including transaction costs (for financial assets that are not held for trading).	
Subsequent measurement	The fair value (FVTPL). Amortized cost. Cost (for the equity instrument with no reliable, fair value measurement).	Fair value through profit or loss (FVTPL). Amortized cost (AC). Fair value through other comprehensive income (FVOCI).
Classification categories	Fair value through profit or loss (FVTPL). Held to maturity (HTM). Loans and receivables. Available for sale (AFS).	Fair value through profit or loss (FVTPL). Amortized cost (AC). Fair value through other comprehensive income (FVOCI).
Reclassification	Reclassification shall be prohibited through profit or loss after initial recognition.	Change of the business model.
Equity instruments	All equity instruments classified as available for sale, are measured at fair value through other comprehensive income. Recycling of the changes.	Irrevocable choice to designate as fair value through other comprehensive income. No recycling.
Profit and losses	Usually through profit or loss.	
Impairment	Several models of impairment. Model of incurred losses.	A unified model of impairment for all financial instruments. The expected loss model.

NOTES Adapted from Huian (2012, 35).

dard of financial instruments with the emphasis on (Huian 2012, 28):

- the complexity of the IAS 39 for financial instruments,
- the extent to which the financial instrument is subject to fair value, and
- the procedure of recognition and measurement of financial instruments.

In table 1, we present a difference between IAS 39 and IFRS 9 in the purpose of the standard, initial recognition, and measurement of the initial classification, reclassification, investments in equities, profit or loss and impairment of financial instruments.

As we presented in table 1, in the purpose of the standard, the initial recognition, and in the measurement of financial instruments there is no difference between IAS 39 and IFRS 9. The biggest modifications are in the classification of financial instruments and subsequent measurement. The change is also in the impairment which replaced several models in IAS 39 to one unified model of impairment in IFRS 9.

IFRS 9 also introduces the new accounting within different business models which are the key triggers for the classification of financial instruments. A business model is a new term in accounting (Page 2014, 684; Girella, Tizzano, and Ferrari 2019; Di Fabio and Avallone 2018; Novak 2014; Lassini, Lionzo, and Rossignoli 2016) and is determined by IFRS 9 (International Accounting Standards Board 2009, 12) as:

- the nature of the business which includes the sector of operations, the primary markets and competitive position, the important features of the legal, regulatory and macroeconomic environment, the main products and services, business processes and distribution channels, the structure of the organization and its economic model,
- management's objectives and strategies for meeting the objectives,
- the resources, risks, and relationships,
- results of operations and prospects,
- key indicators for measuring organizational performance.

A business model is defined as a fact and it is determined by the performance of organization, evaluation and reporting to the key management and it is determined by management of organization's financial assets, held within chosen business model, in relation with the risks that affect the performance of the business model, the way of managing those risks, and with the compensations of the managers (Marshall 2015, 13). Management team determines the content and number of business models in the scope of IFRS 9 that are directed by managing the organization's assets in at least three different business models (Marshall 2015, 13; Di Fabio and Avallone 2018, 26):

- to generate the cash flow with collecting contractual cash flows,
- to sell financial assets or
- both.

Onali and Ginesti (2014, 636) note that investors embraced positively the accounting reform in financial instruments, particularly in the countries with bigger differences in the implementation of accounting rules and they are sure that IFRS 9 will solve all the problems of the standard IAS 39. In another research Onali, Ginesti and Ballestra (2017) note that organizations with better information quality and lower information asymmetry have a positive impact on financial statements after adopting IFRS 9.

The IASB's Chairman in a speech he had in January 2016 to the European Parliament pointed out, that the biggest change in replacement of the standard is the introduction of a model of expected credit losses that require on-time recognition of the inevitable losses in financial statements, particularly in banks (Hoogervorst 2016).

Furthermore, IFRS 9 contributes to improvements in financial reporting, notably in the debt instruments, because of the impairment of financial assets that bring different but significant changes in accounting policies. Impairments base on the model of future losses. Consequently, the stakeholders should have information about the remarkable increase in credit risk (Marshall 2015, 1, 2). As a weakness, we can note the costs that incur due to the standard's implementation. However, Marshall (2015) estimates that the benefits outweigh the costs of the implementation. We can agree with benefits that relate to larger organizations (e.g. banks, insurers), but in small and medium-sized organizations the standard's implementation probably causes increased costs. US GAAP and IFRS 9 do not use the same principle for impairment, but the European organizations shall not have a competitive disadvantage because of the different models of impairment (Marshall 2015, 2).

The researches of IFRS 9 are rear due to the new introduction of the standard in 2018. Some authors have researched the impacts of impairments, reporting and business models (Frèrejacque 2014; Gebhardt 2015; Hashim, Li, and O'Hanlon 2016; Knežević, Pavlović, and Vukadinović 2015; Rebermark and Rydell 2013; Di Fabio and Avallone 2018; Girella, Tizzano, and Ferrari 2019; Pucci and Skærbæk 2019). Some other authors have researched the calculation of expected credit loss (ECL) with emphasis of the probability of default (PD) and loss given default (LGD) (Basel Committee on Banking Supervision 2015; Cohen and Edwards 2017; Edwards jr 2016; Hashim, Li, and O'Hanlon 2016; Kristof and Virag 2017; Novotny-Farkas 2015; Venter 2016; Seitz, Dinh, and Rathgeber 2018). The contribution of replacement of IAS 39 with IFRS 9 could also contribute to the simplification of processes and decision making (Brkovic 2017; Gornjak 2017).

In the paper, we discuss the changes due to the replacement of the standard for financial instruments in accounting, processes, structures of the organization. In the paper, we set the research question which is how the accounting processes could modify or change the organization itself.

Methodology

The paper is based on a qualitative research approach with the case study as many researchers of management accounting suggest (Ahrens and Chapman 2006; Burns 2014; Kaplan 1984; Mat, Smith, and Djajadikerta 2010; Modell 2005; Schiller 2010; Siti-Nabiha and Scapens 2005; Vaivio 2008). Some of them even emphasize the use of case studies (Burns 2014; Burns and Scapens 2000; Humphrey and Scapens 1996; Kaplan 1984; Liguori and Steccolini 2012; Siti-Nabiha and Scapens 2005; Steen 2011). Vaiviu (2008, str. 64) argued that the researches base on case studies are relevant in the case when the changes are introduced into the daily practices, activities, processes, values, and norms of the employees in an organization (Siti-Nabiha & Scapens, 2005, str. 45). The adopting changes in the scope of IFRS 9 are introduced into the daily practices and processes.

The paper bases on the case study research of pension company placed in Slovenia. Pension company is a specialized insurance company that can provide only one service – additional pension insurance. The business of pension company consists of the management of funds raised for additional pension and the payment of supplementary pension annuity to policyholders at a certain age. The main assets under management are primarily financial instruments (mainly debt instruments) which were the key category of the replacement of the standard for financial instruments, so the pension company is appropriate for the research.

We discuss the changes in organizational level by studying the pension company in Slovenia and comparing the existing processes and performance with the new, modified processes because of the replacement of the standard in the fields of classification, measurement, and impairment of financial instruments. The replacement of measuring the financial instruments requires modifications in recognition, classification, and measurement, impairment of financial instruments on assets and liabilities side. Those categories are measurable and have a significant impact on the financial statements of organizations. Additionally, the changes occur also in accounting and organizational processes, structures, and decision-making which is the main topic of the paper as discussed by different authors (Brunsson and Olsen 2018, 1; Burns and Scapens 2000; Steen 2011; Mat, Smith, and Djajadikerta 2010; Chenhall and Langfield-Smith 1998).

In the next section, we introduce the theoretical background of IFRS 9 which is the basis for the case study.

IFRS 9: Replacement of IAS 39

In this chapter, we present the key changes due to the replacement of the standard for financial instruments. The changes are in the introduction and implementation of the standard, in defining business models and in modifications of accounting routines, processes, and organizational structure.

Implementation of IFRS 9

IFRS 9 introduces many modifications in operations and management in the organization. The implementation is a several month project. With the introduction of IFRS 9, organizations are facing with two key challenges (Moody's 2016, 9):

- the tactical challenge, which refers to the introduction of the new standard promptly because the replacement is demanding due to complex data by the 1st of January 2018, and
- the strategic challenge, which relates to the requirements of the standard by constant monitoring, reporting, and management of the ECL impact on business, mainly regarding the volatility of earnings.

The tactical challenge remained until the introduction of the new standard on the 1st of January 2018. After that date, the calculation of ECL and observation of impact to financial statements become the monthly routine. The strategic challenge remains because of constant monitoring, reporting and analyzing the expected credit losses on shareholders' value on a daily bases business and in future projections and simulations.

When an organization introduces IFRS 9 it has to take into account certain activities related to the timetables which are presented in figure 1 and are part of strategic challenges.

The organization, at the beginning of the introduction of IFRS 9, determines the financial investments' segmentation such as classification as equity or debt instruments, then determines sample structure for those instruments and identifies the assumptions, variables and defines the default. Then verifies the data quality and defines the data for development and validation. The development of modules for the analysis and testing is the next activity. The accounting of financial instruments is different in IAS 39 and IFRS 9, so the organization has to test and analyze the different outcomes which are the

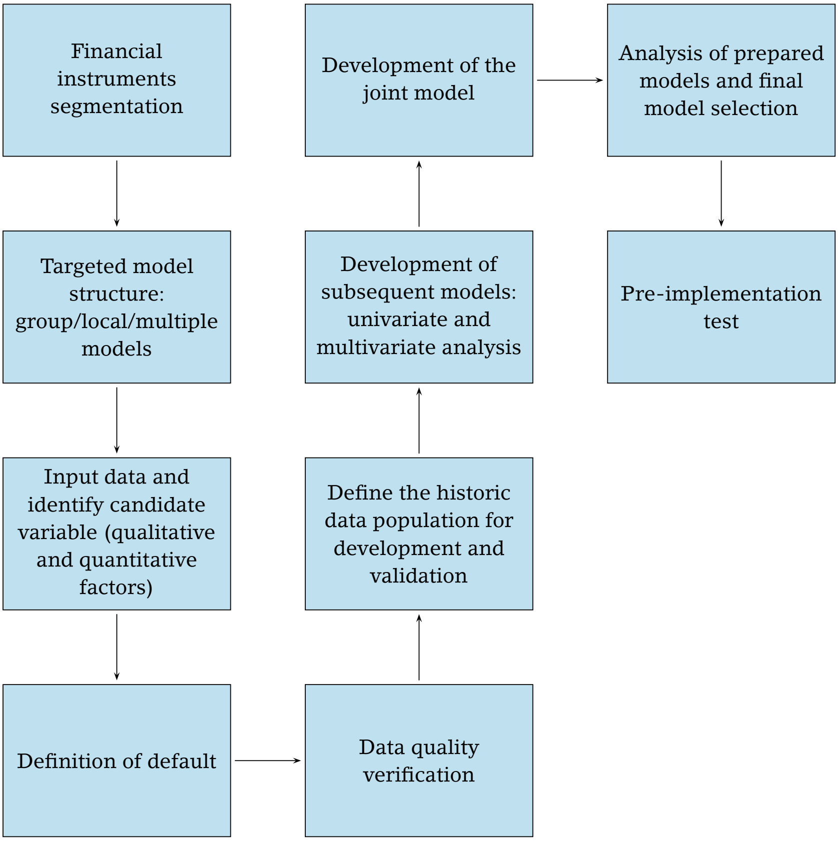

FIGURE 1 Building Activities for the Basis for IFRS 9 (adapted from Moody's 2016, 13)

result of replacement. As the testing result, the organization develops a typical model for IFRS 9 from the test module. The last activity is the selection of the final design and testing before the implementation (Moody's 2016, 13).

At the same time, with the establishment of the basis for IFRS 9, organizations have to determine business models, which are related to the classification of financial instruments and is a novelty in organization business. Until the introduction of IFRS 9, there was no need to use business model classifications.

We complete the discussion with the key processes at the introduction of IFRS 9 (establishment, determination of business models, policies, etc.) in an organization (Chou, Vassar, and Lin 2008, 42). The process of replacing the accounting of IAS 39 to IFRS 9 may be

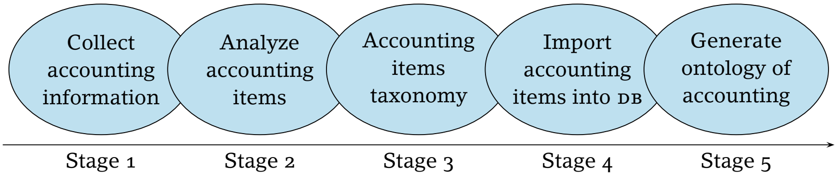

FIGURE 2 Designing Processes in Management Accounting Research (adapted from Chou, Vassar, and Lin 2008, 42)

divided into five key steps or stages, as presented in figure 3 (Chou, Vassar, and Lin 2008, 42):

1. collecting the existing accounting information (from an accounting information system or other data sources),
2. analyzing the existing accounting items (each accounting entry is distributed or classified because of the content of the items, the relationship between them and business),
3. a new accounting classification (taxonomy) of items, were using the results from analyzing and an elaborate model of interrelated items assigned taxonomy,
4. importing accounting items of IFRS 9 in the draft financial plan,
5. the creation of ontology of accounting for IFRS 9 (creates an accounting architecture that impact item).

The process of replacing the accounting within the scope of IFRS 9 is presented in figure 3.

As we presented earlier, we can summarize that the organization has to determine at least three business models for the classification of financial instruments. The process of establishing the business models according to IFRS 9 should focus on the collection of the necessary and relevant business information, such as accounting, sales, finances, etc. (stage 1), which then can be the basis for analysis and classification of financial instruments in the appropriate business model (stage 2). The organization determines how many different business models should use for the classification of financial instruments (stage 3). There should be at least three different business models for classification of financial instruments in accordance with IFRS 9 which are: (i) measured at amortized costs, (ii) measured through other comprehensive income or (iii) measured through profit and loss for debt instruments (stage 4). After setting the number and content of the business models for the existing financial instruments in the portfolio of the organization the organization creates an ontology of IFRS 9 (stage 5). This is a fundamental process because the organization can later in the future reclassify the financial instruments only if the business model is changed.

After replacing the accounting of financial instruments, the organization focuses on building or upgrading the information system (IS), that should automatically support the decisions about classification according to IFRS 9. On each purchase day of financial instrument, the decisions about the choosing business model and SPPI test has to be performed.

Automation of the process according to IFRS 9 is essential for efficient operations of the organization and shall be carried out at the level of a strategic information system. Also, the information system should take into account the time, purpose and data integration for reporting, strategic decision-making, not only for managers but for the entire organization (Odar, Kavčič, and Jerman 2015, 85).

DIFFERENT BUSINESS MODELS OF IFRS 9 AND THE MEASUREMENT OF FINANCIAL INSTRUMENTS

The replacement of the standard, as a regulation, has an impact on the changes in recognition, measurement and accounting itself, transactions, and decision-making within the organization. As we mentioned, each company has to introduced at least three business models according to IFRS 9.

Decision tree for IFRS 9 is divided into two parts; the part that is associated with the decisions when replacing the standard or later, on the purchase or acquisition of financial instruments, as well as to the part which refers to reporting date, which can be a month, a quarter, a semester or a year.

For each financial instrument, the organization should select a business model. The decision of the selected business model includes information about a financial instrument, its characteristics, as well as information about the source of funding of financial instruments, which can be short-term or long-term.

As introduced in the previous chapter, when a financial instrument is purchased, it has to be classified in one of the selected business models according to IFRS 9. There are at least three business models. The first business model is for financial assets that are held for trade and measure through profit and loss. In this case, the price is a fair value from the market. All the changes in fair values are measured in profit or loss. The second business model is for the financial asset that is held to collect cash flows and for trade. Before the financial instrument is recognized in the statement of financial position, the organization needs to do the SPPI test and check, if the

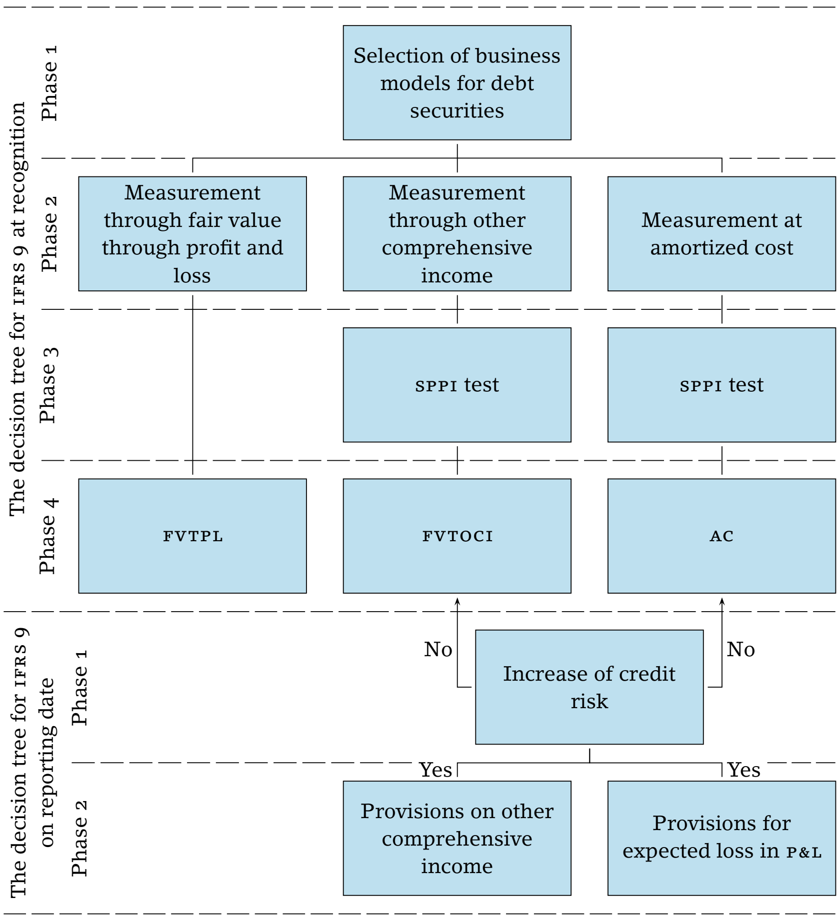

FIGURE 3 Decision Tree According to IFRS 9 at Recognition and Reporting Day

future cash flows are only payment of principal and interests. In this business model, the fair value is measured, but changes are reflected in other comprehensive income in the statement of financial position. The third business model is the valuation at amortized cost. The check of the SPPI test is necessary, and if the financial instrument passes the test, it means, that the future cash flows are only payment of principal and interest. If an instrument pays something else than just the interests (for example, conversion into shares), then it cannot be valued at amortized cost, but only through profit or loss because it fails the SPPI test. It is further necessary, that for a financial instrument, which passes both two tests, that the organization calculates the ECL, with the previous calculations of PD, determination of LGD and calculation of EAD (exposure at default), with the use of the effective rate from the day of purchase. IFRS 9 introduced three stages of subsequent measurement of financial instruments at each reporting date. Usually, the financial instruments on recognition are measured at amortized cost and classified in stage 1 according to IFRS 9, which means the calculation of 12 months ECL. The 12 months ECL is provisioning on the obligation side in the statement of financial position, as well as the expense in the profit and loss account is recognized. With the accounting in the scope of IFRS 9, the organizations evaluate the credit risk twice, once within the purchase (the credit risk is included in the price of the financial instrument) and second with the calculation of ECL and the provisioning. At each reporting date, the check of credit risk and calculation of ECL is necessary due to IFRS 9. If credit risk increases significantly, the financial instrument is moved from stage 1 to stage 2. In stage 1 the 12 months ECL is calculated, while in stage 2 the lifelong ECL is calculated, which, in the long maturities, multiplies the 12 months ECL. If there is evidence of default the financial instrument is moved to stage 3 where the impairment is recognized. As we can assume, the increased credit risk is expressed in the accounting losses of financial instruments and includes a forward-looking approach.

The organization writes the criteria that define the changes in credit risk in accounting policy or regulation. Determining changes in the credit risk is based on reasonable and supporting information to the future (IASB 2016, A342). The organization, with defining the triggers for changes in credit risk, takes into account the assessment, that if the default risk has changed throughout the maturity of financial instruments, there is the change in ECL (IASB 2016, A343). In other words, it is necessary to check the PD, and from changes in PD, the new ECL is calculated with discounting future cash flows.

As we mentioned, in the process of determining the measurement of financial instruments, we do the SPPI test if the financial instrument is in the business model at amortized cost or through other comprehensive income. The SPPI test is performed for debt instruments. The standard specifies that a financial asset can be measured at amortized cost if both conditions are met (IASB 2016, A336):

- the financial asset is held within a business model, whose objective is to hold financial assets to collect contractual cash flows, and
- the contractual terms of the financial asset give rise on specified

dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

SPPI test covers an overview of the prospectus and the characteristics of debt security. The checklist is a part of the process of recognition of financial instruments and is part of the financial information system and an automated process, except in part, where it is necessary to perform the qualitative and quantitative assessment to determine, whether there is a contract payment of solely principal and interests.

Before the purchase of a financial instrument, the organization has to check all possible scenarios, do the SPPI test and determine the impact on future profit or loss. Only well-supported accounting systems allow all the testing and checking, so it is necessary to verify the adequacy of internal accounting systems and the calculations at the time of implementation of IFRS 9.

Accounting Processes Change within an Organization

Because of the introduction of IFRS 9, accounting is changing and the change is usually related to accounting systems, regulations and norms (Liguori and Steccolini 2012, 27). Factors affecting the accounting changes, in theory, can be grouped into (Liguori and Steccolini 2012, 49–52):

- environmental factors – external factors,
- intra-organizational factors – factors within the organization and
- the organizational filtering of environmental factors affecting change.

Enivormantal or external factors are determined by regulative pressure (Liguori and Steccolini 2012, 49) that is in our research the regulation of IFRS 9. They are the first and primary triggers for radical and incremental changes in an organization. Any change in legislation can directly affect the introduction of new systems and structures. (Liguori and Steccolini 2012, 49) In the case of the replacement of the IFRS 9, the regulation of financial instruments in IFRS 9 triggers changes in the financial structures, processes, and systems, because the classification and measurement of financial instruments are changed completely.

External factors, however, are not sufficient to change the performance of the organization, so it is necessary to organize a group of employees within the organization to implement changes. The group has to have the support of the managers and suitable communication tools to communicate the changes, innovations and new approaches (Liguori and Steccolini 2012, 50). The intra-organizational introduction of external factors is also the key factor of the accounting change, which dictates the of speed and the introduction of the modification. The introduction of change is more effective if it includes the whole organization and all key employees from various organizational units, not just accounting or finance (Liguori and Steccolini 2012, 52).

Accounting changes are usually closely related to the change of accounting routines which are recorded in adopted manuals, instructions or policies. Usually, the accounting routines are more associated with financial stability than with change. (Steen 2011, 532, 536). In accounting, the replacement of a standard for a financial instrument is a huge change with the impact on the routines.

In 2000, the author of the Burns and Scapens (2000) published a framework for institutional changes of routines used by the management accounting, and they define the routines as (Steen 2011, 502, 506): 'how things are actually carried out and as processes that are typically in use.'

As we have already noted, IFRS 9 is based on principles which do not coincide with the definition of the routines in the performing tasks of the management accounting. Routines will be part of the business process in the bookkeeping, while management (strategic) accounting is becoming more complex, as it is more complex the measurement of the data in the financial statements because the expectations in the future are incorporated in measurements.

Successful implementation of IFRS 9 is associated with changes in all areas of the organization (strategy, objectives, current business, finance, accounting, sales). For a successful implementation, it is necessary to define clearly and communicate the changes because of the replacement of the standard, to set up an efficient organizational structure that supports all the changes in business processes (Suran 2002, 31).

Because of the new standard, the organizations change their business processes that are associated with the decisions making, as well as with accounting. Organizations take into account the different business models and measurement of financial instruments in the process of preparing the new strategy. The new strategy is required because the IFRS 9 changes the data in the financial statements. Before the formal replacement, new rules and strategy documents should be defined (strategic plan) as well as operational documents (business plan, policies, regulations, etc.). As a result of organizational changes in the formal processes (strategic plan, operational plan, policies, regulations, guidelines) the organizations achieve better financial results and also improve business communication and have better control of processes (Valančiene and Gimžauskiene 2007, 16). Improvement of the processes focuses on attempts to change practices to be more responsive to customers and to improve performance in quality, time, speed and reliability while reducing production costs (Armistead 1999, 143). As recorded by Valančiene and Gimžauskiene (2007, 21), the importance of management accounting is a shift from the orientation on the shareholders to the focus on customers-employees-shareholders, where is constant monitoring, measuring and managing the strategic advantages of the organization and future results.

In the case study of Pension Company, we researched the changes in the business process in the scope of IFRS 9. The company has business processes divided into several partial sequence processes. As we added the processes related to IFRS 9 we acknowledge, that the business processes changed and expanded. we present business processes according to the existing and new accounting. The partial sequence business processes are:

- the beginning of the business process (the process begins with the payment of premiums for pension insurance and the allocation of assets to the personal accounts) – existing process,
- the allocation process (the process involves the analysis of the paid-in premiums, depending on the age of the insured people and the type of insurance) – new process,
- the testing process (the process involves a test of the business model for IFRS 9 and SPPI test) – new process,
- the process of investing (process includes investments of the premium in a variety of financial instruments as the result of the allocation and testing process) – existing process,
- support process (process includes all the supporting activities for recognition of financial instruments, such as bookkeeping, calculating the ECL) – existing and new process,
- the process of finalizing (is the process that takes place at each reporting date and covers the calculation of PD, EAD, ECL, allocating financial instruments from the stage 1 to stage 2, or from stage 2 to stage 3, or vice versa, etc.) – existing and new process.

If we connect business processes that are in place in the pension company, we can extract three main processes (Dvoršak 2014, 156):

- fundamental processes, in which the principal activity is carried out and include the beginning of the business process and the allocation process,

- supporting processes that support the implementation of core activities and to include the testing process, support and finalizing and
- the management process covering the entire business regarding governance, management, and control of the business.

The business processes in the Pension Company had changed or supplemented with two additional processes because of the new standard: analysis of the allocation of premiums and the testing process of the selection of the business model and SPPI test. Additionally, the supporting process and the process of finalizing are expanded with more data and calculations of the PD, EAD, and ECL.

The renewal of the business processes, which we have discussed in this chapter, we can define as business process management. Business process management covers a broader view than just the renovation of business processes, especially if the changes refer to the entire business cycle and introduce new or renewed business processes gradually, comprehensively and in real-time (Žabjek 2011, 67, 68).

With the implementation of IFRS 9, the organization (Kovačič and Bosilj-Vukšić 2005, 379):

- defines the new business models and business processes,
- establishes appropriate and effective strategies and mechanisms for change management,
- simultaneously solves the problems,
- builds an adequate system and mechanisms for continuous improvement and
- defines the strategy and methods of analysis, measurement and risk management.

Conclusions

Regulation of financial instruments in IFRS 9 triggers the changes in financial structures, processes, systems and decision making. Successful implementation is associated with changes in all areas of the organization such s strategy, objectives, current business, finance, accounting, sale, purchase. The new strategy is required because IFRS 9 changes the data in financial statements. As a result of organizational change in the formal processes such as strategic and operational plans, policies, and guidelines, the organization achieves better control on the variation of financial results that are reflected in financial statements.

Organizations apply the replacement of the standard as an external factor, and radically change the business processes and information systems. Replacement of the standard changes current business in fields of accounting, finance, management, sales, purchase, information systems, and management. The organization classifies the financial instruments as equity of debt securities. Furthermore, it is necessary for the debt securities to determine at least three new business models according to IFRS 9: the collection of cash flows, the collection of cash flow and sales or collection for sale. Depending on the chosen business model, the financial instruments are measured at amortized cost or at fair value through the other comprehensive income or at fair value through profit or loss. Further, the measurement at amortized cost and through other comprehensive income requires the SPPI test which tests if the cash flows are solely payments of principal and interests. In each reporting date, the organization has to check the increase or decrease of credit risk and calculates the new ECL. ECL affects the financial result, so the decision about the financial instrument has to be made before the instrument is purchased.

The article contributes to management accounting science because the replacement of the standard never happened until 2018. The change at the organization and its structure was presented with the changes in the business processes. Business processes are added and expended. Further research could be performed after the implementation of a new IFRS 9. The further qualitative or quantitative research should analyze the effectiveness of the replacement to organizational processes, decision-making and impact on financial statements.

References

Ahrens, T., and C. S. Chapman. 2006. 'Doing Qualitative Field Research in Management Accounting: Positioning Data to Contribute to Theory.' *Accounting, Organizations and Society* 31 (8): 819–41.

Armistead, Colin. 1999. 'Knowledge Management and Process Performance.' *Journal of Knowledge Management* 3 (2): 143–57.

Basel Committee on Banking Supervision. 2015. *Guidance on Credit Risk and Accounting for Expected Credit Losses.* Basel: Basel Committee on Banking Supervision.

Benston, G. J., M. Bromwich, and A. Wagenhofer. 2006. 'Principles- versus Rules-Based Accounting Standards: The FASB's Standard Setting Strategy.' *Abacus* 42 (2): 165–88.

Brkovic, M. 2017. 'IFRS 9 Implementation in Banks and Macroeconomic Scenarios: Some Methodological Aspects.' *Bankarstvo* 46 (3): 36–51.

Brunsson, N., and J. P. Olsen. 2018. *The Reforming Organization.* London: Routledge.

Burns, J. 2014. 'Qualitative Management Accounting Research in QRAM: Some Reflections.' *Qualitative Research in Accounting & Management* 11 (1): 71–81.

Burns, J., and R. W. Scapens. 2000. 'Conceptualizing Management Accounting Change: An Institutional Framework.' *Management Accounting Research* 11 (1): 3–25.

Chenhall, R., and K. Langfield-Smith. 1998. 'Factors Influencing the Role of Management Accounting in the Development of Performance Measures within Organizational Change Programs.' *Management Accounting Research* 9 (4): 361–86.

Chou, T.-H., J. A. Vassar, and B. Lin. 2008. 'Knowledge Management via Ontology Development in Accounting.' *Kybernetes* 37 (1): 36–48.

Cohen, B. H., and G. A. Edwards. 2017. 'The New Era of Expected Credit Loss Provisioning.' BIS *Quarterly Review* (March): 39–56.

Di Fabio, C., and F. Avallone. 2018. 'Business Model in Accounting: An Overview.' *Journal of Business Models* 6 (2): 25–31.

Dvoršak, J. 2014. 'Proces notranjega poročanja v zavarovalnici.' Presented at the 4th Konferenca o notranjem poročanju, Ljubljana, 27 November.

Edwards, Jr, G. A. 2016. 'Supervisors' Key Roles as Banks Implement Expected Credit Loss Provisioning.' SEACEN *Financial Stability Journal* 7:1–25.

European Banking Authority. 2017. 'EBA Report on the Results from Second EBA Impact Assessment of IFRS 9.' https://www.eba.europa.eu/-/eba-updates-on-the-impact-of-ifrs-9-on-banks-across-the-eu-and-highlights-current-implementation-issues.

European Commission. 2016. '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 (Text with EEA Relevance).' *Official Journal of the European Union,* L 323/1–164.

Frèrejacque, P. 2014. 'From IAS 39 to IFRS 9.' http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/3/524961426611752780/Pascal-Frerejacque-From-IAS-39-to-IFRS-9-An-overview.pptx

Gebhardt, G. 2015. *Impairments of Greek Government Bonds under IAS 39 and IFRS 9: Study for the ECON Committee.* Brussels: Directorate-General for Internal Policies, Policy Department A, Economic, and Scientific Policy.

Girella, L., R. Tizzano, and E. Rita Ferrari. 2019. 'Concepts Travelling across Disciplinary Fields: The Case of the Business Model.' *Journal of Management and Governance* 23 (2): 373–402.

Gornjak, M. 2017. 'Comparison of IAS 39 and IFRS 9: The Analysis of Replacement.' *International Journal of Management, Knowledge and Learning* 6 (1): 115–30.

Hashim, N. A., W. Li, and J. O'Hanlon. 2016. 'Expected-Loss-Based Accounting for Impairment of Financial Instruments: The FASB and IASB Proposals 2009–2016.' SSRN *Electronic Journal*. https://doi.org/10.2139/ssrn.2803173.

Hoogervorst, H. 2016. 'Introductory Comments to the European Parliament.' http://www.ifrs.org/Alerts/Conference/Documents/2015/Hans-Hoogervorst-speech-Jan-2016.pdf

Horvat, R. and B. Korošec. 2014. 'The Role of Accounting in a Society: Only a Techn(olog)ical Solution for the Problem of Economic Measurement or Also a Tool of Social Ideology?' *Naše gospodarstvo* 61 (4): 32–40.

Huian, M. C. 2012. 'Accounting for Financial Assets and Financial Liabilities According to IFRS 9.' *Annals of the Alexandru Ioan Cuza University: Economics* 59 (1). https://doi.org/10.2478/v10316-012-0002-0

Humphrey, C., and R. W. Scapens. 1996. 'Methodological Themes: Theories and Case Studies of Organizational Accounting Practices: Limitation or Liberation?' *Accounting, Auditing & Accountability Journal* 9 (4): 86–106.

IASB. 2016. 'IFRS 9 Financial Instruments.' http://eifrs.ifrs.org/eifrs/bnstandards/en/2016/ifrs09.pdf

International Accounting Standards Board. 2009. *Exposure Draft Management Commentary*. London: International Accounting Standards Board.

Kaplan, R. S. 1984. 'The Evolution of Management Accounting.' *The Accounting Review* 59 (3): 390–418.

Knežević, G., V. Pavlović, and P. Vukadinović. 2015. 'IFRS 9 and Implications of "Business Model vs. Management Intent" Criteria on the Quality of Accounting Information.' Paper presented at FINIZ 2015 – Contemporary Financial Management, Belgrade, 4 December.

Kovačič, A., and V. Bosilj-Vukšić. 2005. *Management poslovnih procesov: prenova in informatizacija poslovanja s praktičnimi primeri*. Ljubljana: GV založba.

Kristof, T., and M. Virag. 2017. 'Lifetime Probability Of Default Modeling For Hungarian Corporate Debt Instruments.' Paper presented at the 31st European Conference on Modelling and Simulation, Budapest, 23–26 May.

Kusano, M., and M. Sanada. 2019. 'Crisis and Organizational Change: IASB's Response to the Financial Crisis.' *Journal of Accounting & Organizational Change* 15 (2): 278–301.

Lassini, U., A. Lionzo, and F. Rossignoli. 2016. 'Does Business Model Affect Accounting Choices? An Empirical Analysis of European Listed Companies.' *Journal of Management & Governance* 20 (2): 229–60.

Liguori, M., and I. Steccolini. 2012. 'Accounting Change: Explaining the Outcomes, Interpreting the Process.' *Accounting, Auditing & Accountability Journal* 25 (1): 27–70.

Marshall, R. 2015. *Adoption of IFRS 9 Financial Instruments.* Brussles: European Financial Reporting Advisory Group.

Mat, T. Z. T., M. Smith, and H. Djajadikerta. 2010. 'Management Accounting and Organisational Change: An Exploratory Study in Malaysian Manufacturing Firms.' *Journal of Applied Management Accounting Research* 8 (2): 51–80.

Modell, S. 2005. 'Triangulation between Case Study and Survey Methods in Management Accounting Research: An Assessment of Validity Implications.' *Management Accounting Research* 16 (2): 231–54.

Moody's. 2016. *Risk Chartis Market Report: IFRS 9.* https://www.moodysanalytics.com/-/media/article/2016/ifrs9-risk-chartis-market-report.pdf

Novak, A. 2014. 'Business Model Literature Overview.' *Financial Reporting,* no. 1: 79–130.

Novotny-Farkas, Z. 2015. 'The Significance of IFRS 9 for Financial Stability and Supervisory Rules.' http://www.europarl.europa.eu/RegData/etudes/STUD/2015/563461/IPOL_STU(2015)563461_EN.pdf

Odar, M., S. Kavčič, and M. Jerman. 2015. 'The Role of a Management Accounting System in the Decision-Making Process: Evidence from a Post-Transition Economy.' *Engineering Economics* 26 (1): 84–92.

Onali, E., and G. Ginesti. 2014. 'Pre-Adoption Market Reaction to IFRS 9: A Cross-Country Event-Study.' *Journal of Accounting and Public Policy* 33 (6): 628–37.

Onali, E., G. Ginesti, and L. Vincenzo Ballestra. 2017. 'Investor Reaction to IFRS for Financial Instruments in Europe: The Role of Firm-Specific Factors.' *Finance Research Letters* 21:72–77.

Page, M. 2014. 'Business Models as a Basis for Regulation of Financial Reporting.' *Journal of Management & Governance* 18 (3): 683–95.

Pucci, R., and P. Skærbæk. 2019. 'The Co-Performation of Financial Economics in Accounting Standard-Setting: A Study of the Translation of the Expected Credit Loss Model in IFRS 9.' *Accounting, Organizations and Society.* https://doi.org/10.1016/j.aos.2019.101076

Rebermark, I., and E. Rydell. 2013. 'Från IAS 39 till IFRS 9: En förenklad och förbättrad standard?' http://mdh.diva-portal.org/smash/record.jsf;jsessionid=77c3154b3e2a2383da37aba47c54?pid=diva2:589108&searchId=

Scapens, R. W. 1994. 'Never Mind the Gap: Towards an Institutional Perspective on Management Accounting Practice.' *Management Accounting Research* 5 (3–4): 301–21.

Schiller, S. 2010. 'Management Accounting in a Learning Environment.' *Journal of Accounting & Organizational Change* 6 (1): 123–48.

Seitz, B., T. Dinh, and A. Rathgeber. 2018. 'Understanding Loan Loss Reserves under IFRS 9: A Simulation-Based Approach.' *Advances in Quantitative Analysis of Finance and Accounting* 16:311–357.

Siti-Nabiha, A. K., and R. W. Scapens. 2005. 'Stability and Change: An Institutionalist Study of Management Accounting Change.' *Accounting, Auditing & Accountability Journal* 18 (1): 44–73.

Solomons, D. 1991. 'Accounting and Social Change: A Neutralist View.' *Accounting, Organizations and Society* 16 (3): 287–95.

Steen, M. van der. 2011. 'The Emergence and Change of Management Accounting Routines.' *Accounting, Auditing & Accountability Journal* 24 (4): 502–47.

Suran, S. 2002. 'How to Implement Change Effectively.' *Journal of Corporate Accounting & Finance* 14 (2): 31–38.

Vaivio, J. 2008. 'Qualitative Management Accounting Research: Rationale, Pitfalls and Potential.' *Qualitative Research in Accounting & Management* 5 (1): 64–86.

Valančiene, L., and E. Gimžauskiene. 2007. 'Changing Role of Management Accounting: Lithuanian Experience Case Studies.' *Engineering Economics* 55 (5): 16–23.

Venter, E. S. 2016. 'Probability of Default Calibration for Low Default Portfolios: Revisiting the Bayesian Approach.' Doctoral dissertation, University of Stellenbosch.

Žabjek, D. 2011. 'Vpliv managementa poslovnih procesov in drugih ključnih dejavnikov na uspešnost uvajanja celovitih programskih rešitev v podjetjih.' Doctoral dissertation, University of Ljubljana.