

The Transition from US GAAP to IFRS of In- surance and Reinsurance Companies

Case study: Insurance and reinsurance Company X

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Abstract <p>Today, two accounting standards are implemented on a global scale: the United States General Accepted Accounting Principles (US GAAP) regulated by the Financial Accounting Standards Board (FASB) and the International Financial Reporting Standards (IFRS) governed by the IFRS Foundation. The former is used mainly in the US, while the latter is required to be used by more than 140 jurisdictions worldwide.</p> <p>The research aimed to study the transition from US GAAP to IFRS of insurance and reinsurance companies. The thesis studied the phenomenon from three aspects: the motivation of the transfer, the problems encountered during the transition, and the solutions to overcome those problems.</p> <p>Regarding the theoretical framework, the thesis explained the principles of (re)insurance and compares US GAAP and IFRS from a general viewpoint. Moreover, as the two most influential accounting standards of the transition are IFRS 17 – Insurance Contracts and IFRS 9 – Financial Instruments, these two standards and their comparable topics from US GAAP were explained and contrasted.</p> <p>The empirical data was collected through semi-structured interviews with three experts working in the transition from US GAAP to IFRS of a case company. The case company is a global insurance and reinsurance company that has reported under US GAAP in the past but announced adopting IFRS within 5 years ago. The qualitative data was analyzed with the Thematic Analysis approach by coding data into comprehensive codes and grouping related codes into common themes. Those themes were analysed to derive conclusions about the phenomenon.</p> <p>The study result finds that the motivation behind the transition of the case company is the benefits brought by the transition and the global usage of IFRS. Moreover, the research found five major problems and three major solutions to overcome those challenges. In summary, the case company has achieved many objectives so far and aims to finish the transition on its targeted date.</p>		
Keywords Insurance, reinsurance, US GAAP Topic 944, IFRS 9, IFRS 17, transition from US GAAP to IFRS		

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List of abbreviations

BBA – Building Block Approach

CSM – Contractual Service Margin

ECL – Expected Credit Loss

FASB – Financial Accounting Standards Board

FCF – Fulfilment Cash Flows

FVOCI – Fair Value Through Other Comprehensive Income

FVTPL – Fair Value Through Profit and Loss

GAAP – Generally Accepted Accounting Standards

GMM – General Measurement Model

IASB – International Accounting Standards Board

IASC – International Accounting Standards Committee

IFRS – International Financial Reporting Standards

IFRS 15 – Revenue from Contracts with Customers

IFRS 9 – Financial Instruments

IT – Information Technology

LDTI – Targeted Improvements for Long-Duration Contracts

LIC – Liability for Incurred Claims

LRC – Liability for Remaining Coverage

OCI – Other Comprehensive Income

P&L – Profit and Loss

PAA – Premium Allocation Approach

RA – Risk Adjustment

SEC – United States Securities and Exchange Commission

SPPI – Solely Payments of Principal and Interest

VFA – Variable Fee Approach

1 Introduction

1.1 Background

Today, two accounting standards are implemented by many countries on an international level: the International Financial Reporting Standards (IFRS) developed by the IFRS Foundation and the US Generally Accepted Accounting Principles (US GAAP) developed by the Financial Accounting Standards Board. The former is used more globally, as it is required to be used by more than 140 jurisdictions worldwide, while the latter is applied mainly in the US. However, companies based outside the U.S. also implement the U.S. GAAP as the accounting standard of their companies. (IFRS Foundation 2023f; FASB 2023a; Bansal 2022.)

As many differences exist between IFRS and U.S. GAAP, both companies and investors face problems related to consistent accounting and comparability. For example, one problem exists for insurance and reinsurance companies reporting under the US GAAP or IFRS 17 (these concepts will be explained later). If companies have headquarters in the US and subsidiaries in countries where the US GAAP is not accepted, or they have the headquarter in another country and a subsidiary in the US, it will take them more effort to comply with local laws and to integrate their financial reports (Deloitte 2019). On the other hand, different financial statements mean companies and investors must take time converting those statements, as it is challenging to compare the financial results between companies using different accounting standards (Fosbre A., Kraft, & Fosbre P. 2009, according to Bansal 2022).

Within the insurance industry, before 2017, companies could choose either to adopt IFRS or US GAAP. In this case, for the accounting of insurance contracts, those who use IFRS will apply IFRS 4 – Insurance Contracts. Although it was hoped by many stakeholders that the IFRS Foundation and the FASB would create a common framework for accounting in the insurance industry, they decided to go their separate ways (Hoshino & Hines 2019). In May 2017, the IFRS Foundation established the new accounting standard IFRS 17: Insurance Contracts which governs the accounting of the subject in its name and replaces the previous accounting standard IFRS 4 (Kakko 2022). Meanwhile, in 2018, the Accounting Standards Update (ASU) number 2018-12 for GAAP was issued by the FASB and focused on *targeted improvements to the accounting for long-duration contracts (or LDTI)* (Tuttle & Seok 2022).

However, IFRS 17 is not the only IFRS standard that requires the attention of insurers. IFRS is a set of accounting standards with many sub-standards, each of which governs a different

topic. Within the insurance industry, the two IFRS standards that affect the accounting policies of insurance companies the most are IFRS 17 – Insurance Contracts and IFRS 9 – Financial Instruments. The former governs the accounting for insurance contracts, while the latter defines accounting principles for financial instruments like financial assets, liabilities, and equity (KPMG 2021). As IFRS 9 was meant to be applied together with IFRS 17 for insurance companies, insurers could prolong the usage of IFRS 9 until the effective date of IFRS 17 which is 1 January 2023 (KPMG 2021).

1.2 Research questions

The research phenomenon is: “The transition from US GAAP to IFRS of insurance and reinsurance companies. Case study: Anonymous (re)insurance Company X”. The phenomenon will be studied holistically from three aspects, by answering three questions:

1. Why did the case insurance and reinsurance company decide to transfer from US GAAP to IFRS? (Motivation)
2. What challenges did the case company encounter during the transfer process? (Problem)
3. How did they overcome those challenges? (Solution)

As the accounting for insurance contracts of US GAAP and IFRS were updated in the near past, and as many companies are trying to overcome the difficulties of using two accounting standards simultaneously, the thesis will be helpful in many ways. Firstly, it provides useful information regarding the IFRS 9&17 and their comparable topics from US GAAP. As a result, stakeholders who are interested in this problem like insurance companies, auditors, or students will have a critical source of information. Secondly and more importantly, it studies companies that are in or have finished the transferring process from US GAAP to IFRS. Consequently, the thesis result will be a helpful source of information for companies in the future who are considering or are in the process of transferring from US GAAP to IFRS.

1.3 Theoretical framework

The theoretical framework of the thesis covers the insurance and reinsurance industry and the accounting principles of US GAAP and IFRS. For the transition from the former to the latter, the two accounting standards that influence the accounting of (re)insurance companies the most are IFRS 9 – Financial Instruments and IFRS 17 – Insurance Contracts. These two standards, along with their US GAAP comparable topics like Topic 944 for insurance entities will be discussed.

The theoretical framework will be explained in the next four parts of the thesis. Firstly and secondly, the world of insurance and reinsurance will be covered in chapter 2, while chapter 3 will compare the two accounting standards: US GAAP and IFRS from a general perspective. Thirdly, chapter 4 explains and compares IFRS 17 and US GAAP Topic 944 which is specific for insurance contracts and insurance companies. Finally, the differences between IFRS 9 and similar topics in US GAAP will be contrasted in chapter 5. To reduce complexity, this will be done from a general rather than a specific view of the insurance industry, except when stated otherwise. The last two chapters in the list above are the centre of the theoretical framework of the thesis.

There should be some justifications for the presentation of the theoretical framework of the thesis. The thesis includes IFRS 9 and IFRS 17 because as stated before, they were the two most influential IFRS standards on insurance and reinsurance companies by the time the thesis was written. The main reasons are because they were new standards and their effective date – 1 January 2023 – was in the near past. As a result, (re)insurance companies concentrated many of their resources on the application and the impacts of these two standards. This can be seen in the accounting policies in the Notes to the consolidated financial statements of many (re)insurance companies like AXA (2023), Hannover Re (2023), Munich Re (2023), and Allianz (2023).

1.4 Research method

The research method used for the thesis is the case study approach, qualitative research method, and semi-structured interview. The data is collected through interviews with three professionals in the field from a case company, which will be analyzed with the Thematic Analysis approach. This part describes the basis of the research method implemented, but more information regarding the data collection and analysis methods will be presented in chapter 6 of the thesis.

Firstly, regarding the nature of the thesis research, the thesis is inductive rather than deductive. According to D O’Gorman & MacIntosh (2015), there are two reasons for this:

- The thesis aims to explain a phenomenon that has not been discussed deliberately before.
- It tries to achieve that from empirical data.

Secondly, the qualitative research method and case study approach were chosen for many reasons. Firstly, the research explores in-depth details of a phenomenon, which is more suitable to be executed with a qualitative rather than a quantitative method. The reason is that the former is more suitable to derive new knowledge from data, while the latter is more

commonly implemented to use data to test existing knowledge (Hoover 2021). Secondly, the phenomenon of transferring from US GAAP to IFRS conducted by insurance companies is very context-related, as the transfer cannot be separated from the context of the insurance industry and the difference between the two accounting standards. As in the definition by Ying (2009) according to D O’Gorman & MacIntosh (2015), a case study is:

...an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when... the boundaries between phenomenon and context are not clearly evident.

From the paragraph above, it can be concluded that the functions of case studies and the qualitative approach are very suitable to answer the thesis question and explore the phenomenon. Therefore, they were selected for the research.

1.5 Delimitation

Regarding the delimitation of the theoretical framework, the thesis includes only IFRS 9&17 and similar topics from US GAAP. Therefore, even though other standards from IFRS like IFRS 15 – Revenue from Contracts with Customers or IFRS 16 – Lease will not be discussed. Moreover, the explanation of these accounting standards will focus on the context of the insurance industry (except for IFRS 9 which will be analyzed from a broader perspective, but it will still focus on the discussed industry whenever possible). Therefore, companies adopting IFRS from US GAAP may not find all information regarding the transition relevant, especially if they are from a different industry.

Regarding the delimitation of empirical data, the empirical data was collected through three interviews with three IFRS experts in an anonymous (re)insurance company that was transferring from US GAAP to IFRS. As the data is specific to one company, the result will not be generalized for either the whole insurance industry or other industries.

2 Insurance and reinsurance industry

2.1 The principles of insurance and reinsurance

Insurance principles

To get protected from an uncertain event, an individual or a company can form a contract and pay money to a company that will repay them money when that uncertain event happens. This is how insurance works. In this case, the contract formed between the protected individual (the policyholder) and the company (the insurance company, or the insurer) is called an insurance contract, while the money paid to the insurer by the policyholder is called the premium. For example, an employee of a fast-food restaurant may have a policy that covers his injuries caused by a deep frier. In case an injury is caused by that machine, the employee will be compensated with claims from the insurance company. (Kagan 2023.)

To clarify it further, insurance works by transferring the insured risk from the insured to the insurer, thanks to two major factors: risk pooling and statistics/calculation of risk. Firstly, regarding risk pooling, many policyholders pay premiums for a certain insurance policy, but the number of victims to the insured risk is very small compared to the non-victim policyholders. For example, assume that policyholders are paying premiums for an insurance policy against fire accidents of houses. The number of policyholders who suffer from such fire incidents and receive a claim is relatively small compared to the rest who are safe. This works for the policyholders too, as they only pay a small amount of premium but will be compensated for a big loss (if that loss ever happens). Secondly, the value of the premium is calculated depending on the probabilities of the risk and its impact. This process is called “underwriting” which requires advanced knowledge of finance and probability. (Insurance Europe 2021.)

Regarding insurance contracts, the IFRS Foundation (2023d) defines an insurance contract as:

A contract under which one party (the issuer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.

The three common types of insurance, according to the Insurance Information Institute (2023), are:

1. Property and casualty which includes primarily auto, home, and commercial insurance

2. Life and health, which includes primarily insurance for life and annuities
3. Health insurance, produced by private health insurance companies or from governmental programs.

Reinsurance principles

In simple words, insurance for insurance companies is called reinsurance (Insurance Information Institute 2023). To protect themselves from the risks that they insured to policyholders, insurance companies can transfer those risks to another insurance company (Insurance Information Institute 2023). In this case, the former will bear the risks of the latter (the initial issuer of insurance contracts) and is called the reinsurer, while the latter is known as the primary or direct insurer, the reinsured, or the ceding office (Insurance Information Institute 2023; Cartel 2013).

If insurance companies want to be profitable while still able to pay all the claims and expenses, they must make some basic assumptions to determine premiums. Those assumptions can be that the units exposed to the insured risk are mostly homogenous and the risk conditions do not change (Cartel 2013). However, the size of some exposure units can be significantly different, while the conditions of risk do not stay constant either (Cartel 2013). Therefore, the actual loss of an insurance company can vary dramatically compared to its expectation that it needs to be protected from insolvency or high unexpected losses (Cartel 2013).

The purpose of reinsurance is to provide that protection. As stated by Cartel in 2013, reinsurance protects insurance companies from: 1 – one or more tremendous individual losses that occur randomly, or accumulated losses caused by one occurrence in relation to premium income and loss reserves; and 2 – the variation in the annual total claims encountered compared to the mean. Moreover, as reinsurance is more international than insurance in nature, it helps spread the losses globally, for example, if natural disasters like floods strike less developed nations (Cartel 2013). Consequently, insurers are more resilient to unusual impactful events and can cover a higher volume or quantity of risks with a lower amount of costs and loss reserves (Banton 2023, Cartel 2013).

Although reinsurance and insurance both share the core principle of providing protection against uncertain events, there are some critical differences.

- Firstly, an insurance contract is formed between an insurance company and a public entity like an individual person, a company, or an institution, while a reinsurance contract is signed by two insurance companies.

- Secondly, a primary insurer has direct insurance over the insured events, while the reinsurer is only indirectly concerned with those events in case it has agreed to compensate the reinsured. However, regarding accounting, the British courts and the Department of Trade require the insurance belonging to a reinsurance contract to be treated as that of direct insurance.
- The third difference lies in the principle of indemnity which means the claim paid to policyholders in case the insured event happens. Not all insurance contracts follow this principle, as some life insurance like life and health insurance are subject to benefit policies. Nevertheless, the principle of indemnity is applied to all reinsurance contracts.
- Finally, most direct insurance contracts, except for special industries like aviation and marine, are domestic, while reinsurance contracts are more international. As a result, the losses from the reinsured risk can be spread out among different nations. (Cartel 2013.)

2.2 Insurance industry

As perceived in the 1970s and 1980s, the insurance industry is considered safe and slowly advancing to be invested in. Even though this belief is less firm before, it is still generally accepted, especially when other financial sectors are compared to the insurance industry. (Beers 2023.)

Insurance companies make money from the premiums paid by policyholders and the investments made from those premiums. Insurance companies are divided into two major types: life (life and health) and non-life (property and casualty) which targets different customer base and determine different insurance terms (Kakko 2022; Beers 2023). Regarding capital structure, an insurance company can be a traditional stock company owned by external investors or a mutual company owned by policyholders. (Beers 2023.)

Table 1. Claims paid, premium received, and direct employment by the insurance industry (according to Insurance Europe 2020)

	Value	Unit
Claims and benefits paid to policyholders	1 010 billion	Euros
Premiums received	1 264 billion	Euros
Direct employment	922 000	Person

In 2020, the numbers of claims and benefits paid to customers and premiums received by the insurance industry in Europe were 1010 billion euros and 1264 billion euros, respectively. In the same year, it also directly employed more than 922 000 people which was a slight rise of 0.6% from 2019. (Insurance Europe 2020.)

3 Accounting standards: US GAAP and IFRS

3.1 Generally Accepted Accounting Principles

The Financial Accounting Standards Board

The Financial Accounting Standards Board (FASB) was founded in 1973 and is now based in Norwalk, Connecticut. It is “*an independent, private-sector, not-for-profit organization*” that issues financial accounting and reporting standards like US GAAP which is followed by US companies (both public and private) and non-profit organizations. The U.S. Security and Exchange Commission (SEC) acknowledges it as the setter of accounting standards for public companies. Moreover, many other organisations like the American Institute of Certified Public Accountants or state Boards of Accountancy also recognize the FASB as authoritative. (FASB.)

The Generally Accepted Accounting Principles

As explained above, GAAP is a common set of accounting standards set by the FASB and used by many US companies and organizations. The authoritative sources of GAAP include the FASB Accounting Standards Codification released by the FASB and rules and interpretive releases of the SEC (FASB 2023a). Other nonauthoritative sources of accounting guidance include, for example, IFRS or widely recognized practices by the general or in an industry (FASB 2023a).

Currently, US GAAP has many topics, each of which has a code for itself. For example, the code for accounting principles related to insurance is summarized in topic 944 – Insurance. Topic 944 is the comparable object of IFRS 17, while LDTI is an update of this topic which was released in 2018 (FASB).

Like other financial accounting standards, the major aim of GAAP is to regulate rules and to define accounting standards for companies to follow. As a result, these companies can establish consistent, reliable, and comparable financial statements which helps investors and the comparison of financial data among firms (Fernando 2023).

3.2 International Financial Reporting Standards

International Financial Reporting Standards Foundation

The root of the IFRS Foundation can be traced back to 1973 when accounting bodies of many countries like Australia, France, Germany, Japan, and the UK founded the International Accounting Standards Committee (IASC) (IFRS Foundation 2023f). The mission of

the IASC was to create accounting standards that could be applied worldwide (IFRS Foundation 2023f). After almost three decades of working, the IASC was restructured into the International Accounting Standards Board (IASB) in 2000 to better harmonize global accounting standards with those on national levels (Tamplin 2023). The IFRS Foundation was established in the same year and has governed the IASB ever since, together with which it creates and updates IFRS (IFRS Foundation 2023f).

International Financial Accounting Standards

IFRS, as a global accounting standard, is required to be implemented by more than 140 jurisdictions (IFRS Foundation 2023f). Today, it includes 17 Standards, each of which covers a different aspect of financial reporting and accounting. For example, the IFRS 1 – First-time adoption of IFRS ensures that the first IFRS financial statements of companies are transparent and comparable over all the presented periods, are a good starting point for accounting aligned with IFRS in the future, and generate more or equal to its cost (IFRS Foundation 2023a). Likewise, IFRS 9 covers Financial Instruments like assets and liabilities of companies, while IFRS 15 Revenue from Contracts with Customers governs information related to revenue arising from contracts with customers like the nature, amount, and uncertainty of those contracts (IFRS Foundation 2023c; IFRS Foundation 2023e).

Together, all IFRS standards and other standards set by the IFRS Foundation and IASB define what elements to be included in financial statements and how to present/disclose them for companies (Kakko 2023).

3.3 The general differences between US GAAP and IFRS

Both US GAAP and IFRS cover many aspects of accounting like the presentation of financial statements, lease accounting, and earnings per share. To distil the knowledge and provide an overview, only a few major differences will be highlighted below.

Rules-based versus principles-based

The first difference is related to the details and interpretations of these two accounting principles. The GAAP accounting system is rules-based, whereas the IFRS accounting system is principles-based. In practice, this means the IFRS theoretical framework includes fewer specific details and guidance, hence the interpretation is freer. Meanwhile, the disclosures on financial statements are usually lengthier than those under GAAP. However, as IFRS principles are more consistent and logical, the business transactions may be presented better by them. (Ross 2023.)

Local versus global

As explained before, IFRS is more global in nature, as it is implemented by more than 140 jurisdictions around the globe (IFRS Foundation 2023f). On the other hand, GAAP is used mainly by US companies. Another thing to note is that IFRS targets mainly for-profit entities, while US GAAP can be used by both for-profit and not-for-profit organizations (KPMG 2022).

The balance sheet

The way the two accounting standards organize their balance sheets is slightly different. Firstly, a balance sheet under US GAAP starts with current assets, while the first item under an IFRS balance sheet is non-current assets. Moreover, GAAP presents balance sheet items in the descending order of liquidity, or how fast cash can be converted from these items. In other words, the quicker an item can be converted into cash, the sooner it will be listed on the balance sheet. Following this order, the items will be arranged as in this flow: current assets, non-current assets, current liabilities, non-current liabilities, and owners' equity. On the other hand, IFRS arranges items in the ascending order of liquidity, which means the flow will be reversed under IFRS. (Gavin 2019.)

The cash flow statement

Table 2. Cash flow statements: GAAP vs. IFRS (as adopted from Gavin 2019)

	GAAP	IFRS
Interest paid	Operating section	Operating or Financing section
Interest received	Operating section	Operating or Investing section
Dividends paid	Financing section	Operating or Financing section
Dividends received	Operating section	Operating or Investing section

The difference between the cash flow statements under US GAAP and IFRS originates from how they classify interest and dividends. Regarding interest, under US GAAP, both interest paid and interest received should be put in the operating section of the cash flow statement. With IFRS, companies can decide whether to classify interest paid as operating or financing activities, and interest received as operating or investing activities. (Gavin 2019.)

The matter of dividends is of no difference. A company following GAAP will classify dividends paid as financing activities and the dividends received as operating activities. Meanwhile, IFRS users can account for dividends paid in the operating or financing section, while they can place dividends received in the operating or investing section. (Gavin 2019.)

Revaluation of assets

If, because of market or technological reasons, the value of an asset is reduced which lowers it below the current value written in the account of a company, a loss on impairment is recorded. However, if the reasons causing the loss are no longer valid, the value of that asset can still increase after the recognition of the loss. With GAAP, companies cannot recover the value of an asset once it has been impaired. However, under IFRS, revaluation of an asset back to its original value and adjusting for depreciation are possible. (Gavin 2019.)

Inventory valuation methods

Under both GAAP and IFRS, the first-in, first-out (FIFO) and weighted average-cost inventory accounting methods are allowed. While GAAP allow the use of the last-in, first-out (LIFO) method, this method is not permitted under IFRS. Meanwhile, inventory reversals are prohibited by GAAP but are allowed by IFRS if specific conditions are fulfilled. (Ross 2023.)

4 The differences between IFRS 17 and US GAAP Topic 944

This session is the centre of the theoretical framework where the concepts of US GAAP and IFRS 17 are explained and compared. Each aspect of two accounting standards will be analyzed in one sub-section. On one hand, if readers want to compare the differences between them, they can follow the order of the sub-sections written in this part. On the other hand, if readers are new to accounting concepts or want to have deep knowledge of one accounting standard before moving to the other one, it is advisable to read the parts only for IFRS 17 or US GAAP and go back to the other later.

4.1 Overview and scope

IFRS 17

The effective date of IFRS 17 was 1 January 2023, but early adoption is possible if a company also adopts the new financial instruments standard IFRS 9. IFRS 17 governs both insurance and reinsurance contracts that an entity issues and reinsurance contracts that it holds. If an entity issues investment contracts with discretionary participation features, the IFRS 17 is also applied if that entity also forms insurance contracts. (IFRS Foundation 2023d.)

US GAAP Topic 944

The targeted improvements for long-duration contracts (LDTI) were released by FASB in August 2018 which targeted the financial reporting of long-duration contracts issued by insurance entities. For companies that file regulatory documents like financial statements and disclosures to the US Security and Exchange (SEC), these improvements were effective for annual periods which start after 15 December 2022, whereas the effective time is two years later for other companies. It is possible to adopt the standards earlier. (FASB, according to KPMG 2022.)

Unlike IFRS 17, the subjects of Topic 944 are not insurance contracts but insurance entities to which this Topic issues industry-specific accounting principles. For entities that are not insurance entities, the contracts they issue that might be classified as insurance contracts under IFRS 17 will be governed by different topics of US GAAP like the topics on financial instruments, provisions, or revenue from contracts with customers. (FASB, according to KPMG 2022.)

The definition for insurance contracts might differ for IFRS and US GAAP. Under US GAAP, a contract that *provides economic protection from identified risks occurring or discovered within a specified period* is classified as an insurance contract (FASB 2023b). An insurance

contract is further categorized as a short- or long-duration contract (FASB, according to KPMG 2022). The categorization of insurance contracts is also based on its insurance risk on which the accounting method for it is applied (FASB, according to KPMG 2022). There are five types of long-duration contracts (FASB 2023b):

- Traditional fixed and variable annuity and life insurance contracts
- Universal life-type contracts
- Non-traditional fixed and variable annuity and life insurance contracts
- Participating life insurance contracts
- Group participating pension contracts.

Other contracts are mostly short-termed and feature mostly property and liability insurance contracts (FASB, according to KPMG 2022).

4.2 Separation of components of insurance contracts

One insurance contract might include different components than insurance components like investment component or a component for services different from insurance services. Separation of contracts means each component of an insurance contract will be separated and treated differently accounting-wise.

IFRS 17

Under IFRS, firstly, an entity must determine embedded derivatives and apply IFRS 9 for those derivatives. More technically, under IFRS 9, the IFRS Foundation (2023e) defines a derivative as a financial instrument or other contract within the scope of IFRS 9 and has all three following characteristics:

- *its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (sometimes called the 'underlying');*
- *it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors;*
- *it is settled at a future date.*

With this definition, an embedded derivative is a component belonging to a hybrid contract which also has a non-derivative component. However, the embedded derivative will generate cash flows similar to a stand-alone derivative (IFRS Foundation 2023e). To make it more comprehensible, some embedded derivatives under an insurance contract can be, for example, financial derivatives like interest rate options or options linked to an equity index (KPMG 2020).

Secondly, distinct investment components are separated from a host insurance contract, which will then be accounted under IFRS 9. Investment components are distinct when the interrelation between the investment component and the insurance component is low, and that investment components can be sold in equivalent terms separately by an insurance or non-insurance entity. After all embedded derivatives and distinct investment components have been removed, the next component to be separated is a promise to deliver distinct goods or services (which are different from insurance contract services) to a policyholder. An entity shall apply IFRS 15 – Revenue from contracts with customers to this type of promise. Only when all components listed above are separated shall an entity use IFRS 17 to the remaining components of the original insurance contract (IFRS Foundation 2023d).

US GAAP Topic 944

Like IFRS, there are more components beside insurance components in insurance contracts which are also governed by US GAAP. These components can be accounted using topics like Revenue Codification or financial instrument Codification Topic. However, a difference between US GAAP and IFRS 17 is that there is no specific separation for investment components of an insurance contracts under US GAAP. Under US GAAP, the contributions of contract holders for certain types of contracts like investment contracts or universal-life contracts can be treated as deposits like financial instrument. Nevertheless, an entity cannot use deposit accounting for contracts that transfer significant insurance risk. (FASB, according to KPMG 2022.)

4.3 Recognition of insurance contracts

IFRS 17

Recognition is the time a group of insurance contracts is accounted under the profit or loss statement and other financial statements of an entity. Under IFRS 17 (IFRS Foundation 2023d), a group of insurance contracts is realized by the entity that issue it from the earliest of:

- When the coverage period of the group of contracts starts,

- When the initial payment from a policyholder is due,
- When a group of contracts becomes onerous (this will be explained later).

US GAAP Topic 944

Recognition is another difference between US GAAP and IFRS 17, as the former applies different accounting depending on whether an insurance contract is short-duration, long-duration, or financial guarantee. If it is a long-duration contract, the sub-category type is also considered: whether it is whole-life, guaranteed renewable term life, universal life, or another type. (FASB, according to KPMG 2022.)

4.4 Level of aggregation

To account for profits or losses of insurance contracts, insurance entities can estimate the cash flows (both the inflows – the premiums, and the outflows – claims and expenses) in an explicit, unbiased, and probability-weighted way. If, at the date when an insurance contract is first recognized in the financial statements (or the date of initial recognition), the total cash flows that contract generates is a negative number, that contract is onerous (IFRS Foundation 2023d). In other words, onerous contracts are unprofitable insurance contracts, whereby the profits/losses are estimated by an insurance entity.

Onerousness is a difference between the two accounting standards. Specifically, IFRS 17 has a method of grouping insurance contracts based on onerousness, while US GAAP does not.

IFRS 17

IFRS 17 allows the grouping of insurance contracts that have similar risks and are managed together. These groups of insurance contracts are called portfolios. Normally, as contracts under the same product line are subject to similar risks, they are expected to be in the same portfolio if they are managed together. However, contracts whose issue date are different by more than one year cannot be included in the same group. It is compulsory for all contracts to be aggregated into groups under IFRS 17. (IFRS Foundation 2023d; IFRS Foundation, according to KPMG 2022.)

According to IFRS Foundation (2023d), a portfolio of insurance contracts is divided into the minimum of group of:

- Contracts that are onerous at initial recognition, if there is any;
- Contracts that have no significant possibility of becoming onerous subsequently at initial recognition;

- Remaining contracts in the portfolio if there is any left.

US GAAP Topic 944

Unlike IFRS, there is no requirement for level of aggregation under US GAAP, although some long-duration contracts subject to targeted improvements can still be aggregated. The concept "onerousness" is not used by GAAP either. Instead, entities following US GAAP must conduct premium deficiency testing to examine if the liabilities they reported are sufficient. This can be done by using current estimates of future cash flows. However, like IFRS 17, it is not possible to group contracts that were issued more than one year apart to calculate liability for future policyholder benefits. (FASB, according to KPMG 2022.)

4.5 Measurement of profit and loss

IFRS 17

The measurement of profits or losses of insurance contracts is a core of the new accounting standards. IFRS 17 uses three different measurement models: the General Measurement Model (GMM) or the Building Block Approach (BBA), the Premium Allocation Approach (PAA), and the Variable Fee Approach (VFA). Among them, the GMM can be used for all groups of insurance contracts governed by IFRS 17, while the only exception is those measured using the PAA (IFRS Foundation, according to KPMG 2022). According to PwC (2017a), the GMM is also the default model for all insurance contracts. Therefore, the GMM will be analysed first before moving to other models.

The General Measurement Model is also called Building Block Approach because companies must follow different blocks to calculate the cash flows from groups of insurance contracts (based on the level of aggregation above). Firstly, in Block 1, insurance companies must estimate the value of future cash inflows (the premiums) and cash outflows (claims and expenses) generated by them. The estimation is done in an explicit, unbiased, and probability-weighted way, and the output of this process is the Best Estimate of Future Cash Flows. Next, in Block 2, the future cash flows are discounted to present value using a discount rate. Discount rates reflect the time value of money which shows how much a dollar in the future is worth today (normally a dollar in the future is less than a dollar today, or that it takes more money to buy the same good in a store in a future than now). The result of the calculation is the present value of the future cash flows. (IFRS Foundation 2023d; IFRS Foundation, according to KPMG 2022; IFRS Foundation, according to KPMG 2020.)

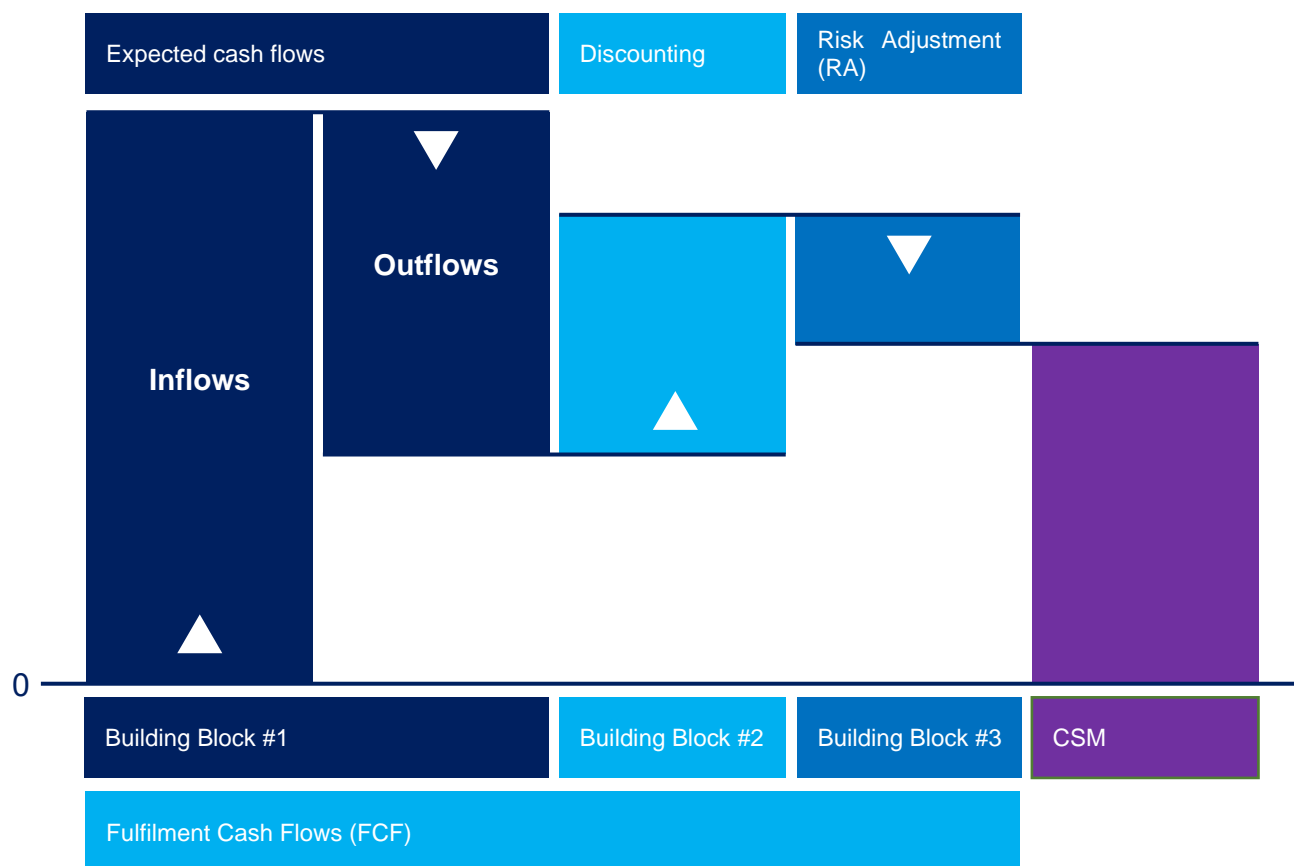


Figure 1. Building Blocks Approach, as adopted from KPMG (2020) and Blijlevens & Beijering (2016), according to Kakko (2022)

The next building block features Risk Adjustment (RA) which is the compensation for non-financial risks caused by the uncertainty of the amount and timing of the cash flows under IFRS 17. By adding the present value of Risk Adjustment into the equation, the Contractual Service Margin (CSM) will be calculated as a result. The cash flows that include all three blocks: the cash inflows and outflows, the discount rate, and RA is called the Fulfilment Cash Flows (FCF). (Kakko 2022; IFRS Foundation, according to KPMG 2020.)

The Contractual Service Margin (CSM) is a new concept issued by IFRS Foundation which represents the unearned profit from a group of insurance contracts. The profit is unearned, because although the premiums might be received at the issuance of a group of insurance contracts (year 0), it is only recognized when the insurance contract services are delivered to a policyholder by the insurance entity (which might happen in year 1 or 2 or 3). The CSM is accounted as assets or liabilities of a group of contracts (IFRS Foundation 2023d). The CSM is floored at zero. In case the Fulfilment Cash Flows of a group of contracts is negative, that group is onerous, and the loss is recognized immediately in the Income Statement (IFRS Foundation, according to KPMG 2020).

Regarding the liability for a group of insurance contracts, there are two types of liabilities. The first type is Liability for Remaining Coverage (LRC). Under this type of liability, insurance companies are obliged to pay valid claims for insured events that have not yet occurred. On the other hand, Liability for Incurred Claims (LIC) – the second type of liability – represents the obligation to investigate and make payments for insured events that have already happened. The sum of these two types of liability is called the Total liability for a group of insurance contracts. (IFRS Foundation, according to KPMG 2020.)

The GMM can be understood better through an example adopted from that of Kakko (2022). Assume that an insurer issues a portfolio of a 100 similar health insurance contracts with the characteristics as below:

- The length of contracts is 3 years, while all policyholders pay a premium of 150 euros only once at the beginning of the insurance contracts.
- The annual discount rates for each year are 2.19%, 2.05%, and 2.45% separately from year 1 to year 3.
- In case the insured event occurs, the insurer will pay claims of 225 euros. Assumed that the insurers pay claims to 10 policyholders per year.
- The risk adjustment is defined as 10% of the expected cash outflows (or the claims) of each year and is calculated at the present value.

Table 3. An example of GMM, as adopted from Kakko (2022)

	Time			
	Present/Year 0 (€)	Year 1 (€)	Year 2 (€)	Year 3 (€)
Premiums (+)	15000			
Claims (-)		-2250	-2250	-2250
Discount rate		2.19%	2.05%	2.45%
Present values of claims (-)		-2201.78	-2157.55	-2105.96
Risk adjustment (-)	10%	-220.18	-215.76	-210.60
Present Value of Liabilities (-)	-7111.82	-2421.96	-2373.31	-2316.55
CSM	7888.18	N/A	N/A	N/A

A summary table for the cash flows of this portfolio is presented. From the information, the total premium will equal 15000 euros which is the multiplication of 150 euros and 100 insurance contracts. The claims paid each year is 2250 euros which is the multiplication of 225 euros for claims and 10 policyholders per year. The value of discount rates and risk adjustments are also presented in the table.

To calculate the CSM which is the profits or losses of the portfolio, firstly, the value of claims for each year is discounted to their present value based on the annual discount rate. As a result, the present value of claims annually from year 1 to year 3 is 2201.78 euros, 2157.55 euros, and 2105.96 euros respectively. Secondly, from the present value of claims, the risk adjustment for each year can be identified by determining 10% of the claims. Thirdly, by combining both the present values of claims and RA, the insurer can define the present value of liabilities. In this example, the total present value of liabilities is 7111.82 euros which is the total amount the insurer needs to pay the policyholders.

Finally, the CSM is calculated by subtracting the Present Value of Liabilities from the Premiums which is 7888.18 euros. As the CSM is not a negative number, it will be recorded in the Balance Sheet as liabilities instead of a loss in the Income Statement. The profit will be released and recognized overtime when the insurance contract services are performed by the insurance entity.

The second model that an insurance company can practice is the Premium Allocation Approach (PAA). It is considered as a simplified measurement model that can be applied to both insurance contracts and reinsurance contracts held (IFRS Foundation, according to KPMG 2022). An entity can apply the PAA to a group of insurance contracts if one in two conditions is satisfied: if each contract in the group covers a duration less than one year or less; or the measurement of the Liability for Remaining Coverage (LRC) calculated by using the PAA would not be materially different from that produced by the GMM (IFRS Foundation, according to KPMG 2022). However, Kakko (2022) states that if a group of contracts satisfies those conditions, they can be measured with the GMM which will bring more consistency to the accounting result. It is not necessary for insurance companies to calculate CSM under the PAA (Kakko 2022).

Finally, the last measurement model under IFRS 17 is the Variable Fee Approach (VFA) which is a modified version of the GMM (IFRS Foundation, according to KPMG 2022). It is applied mostly to insurance contracts with direct participation features (or direct participating contracts), not to reinsurance contracts features and reinsurance contracts held (IFRS Foundation 2023d; IFRS Foundation, according to KPMG 2022). The IFRS Foundation (2023d) defines an insurance contract with direct participation features as:

An insurance contract for which, at inception:

- a) the contractual terms specify that the policyholder participates in a share of a clearly identified pool of underlying items;*
- b) the entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns on the underlying items; and*
- c) the entity expects a substantial proportion of any change in the amounts to be paid to the policyholder to vary with the change in fair value of the underlying items.*

In summary, the VFA is a modification of the GMM used mainly for investment-related service insurance contracts. The CSM is also calculated like under the GMM.

US GAAP Topic 944

The section above describes three measurement models of IFRS 17: the GMM applied generally to all groups of insurance contracts; the PAA applied to short-term contracts; and the VFA applied to insurance contracts with direct participation features (or direct participating contracts or contracts with investment-related services). Moreover, in IFRS 17, there are new concepts like the estimation of future cash flows, discounting, risk adjustment, and CSM. This part of the thesis examines whether there are similar models and concepts of IFRS 17 in US GAAP and what are the differences between them.

The measurement models in US GAAP will be analyzed first in this paragraph. Firstly, regarding a general model that can be applied to all insurance contracts, different from IFRS 17, companies reporting under US GAAP need to apply different accounting model based on the classification of the contracts: whether they are financial guarantees, short-duration, or long-duration. The type of the long-duration contracts also needs to be considered like if they are whole-life, universal life, annuity, or other types. Secondly, however, there is a model to measure short-duration insurance contracts under US GAAP like the PAA under IFRS 17. In this case, when an insurable event occurs, companies will recognize the liability for unpaid claims and expenses for claim adjustments. Moreover, the accounting for participating insurance contracts is also addressed in US GAAP. The focus topic of US GAAP in this case is dividends to policyholders which are the distributable amounts to policyholders of any participating insurance contract. The insurer determines this amount and treat these participating insurance contracts as insurance contracts. (FASB, according to KPMG 2022.)

Comparable to IFRS 17, US GAAP has concepts or principles like the estimation of future cash flows and discounting, but there are no similar concepts to risk adjustment or CSM

under US GAAP. Firstly, regarding the estimation of future cash flows, insurers can estimate the future cash flows within the duration of a contract or a group of contracts to measure their liabilities. The amount, uncertainty, and timing of the cash flows are considered like under IFRS. However, one difference is that under US GAAP, the classification of insurance contracts affects how the liabilities are measured, like whether they are short-duration, long-duration, or annuity. (FASB, according to KPMG 2022.)

Secondly, regarding the discounting of future cash flows to their present value, only discounting the liabilities for short-duration contracts is allowed under US GAAP. Moreover, this is allowed only when the payment has a fixed or reliably determinable pattern. Thirdly, the risks of insurance contracts are calculated in the risk adjustment under IFRS 17, while there is no similar concept under US GAAP. Finally, there is no concept similar to CSM under US GAAP. (FASB, according to KPMG 2022.)

In summary, even though there are similarities between IFRS 17 and US GAAP Topic 944 like the measurement model for short-duration or direct participating contracts and the estimation of future cash flows, the differences remain more significant. Additionally, under US GAAP, the classification of the insurance contracts play an important role in determining the measurement model and the factors used to calculate the liabilities of insurance companies.

5 The differences between IFRS 9 and US GAAP comparable topics

There is no single topic from US GAAP that can be compared to IFRS 9. Therefore, this section includes information from different comparable topics under US GAAP such as Topic 321, Topic 326, and other topics and sub-topics (FASB, according to KPMG 2022). Because it is not in the scope of this thesis to discuss these standards in detail, it will only include important information like the classification and measurement of financial assets and liabilities, impairment, and hedge accounting. It will not discuss in detail the accounting of, for example, financial guarantee contracts or embedded derivatives.

To make this section more comprehensible, the first sub-section will explain basic accounting concepts crucial to understand these accounting standards. Readers that are familiar with these concepts may skip the first sub-section and start with the comparison of IFRS 9 and comparable topics from US GAAP. This explanation and comparison start from the second sub-section.

5.1 Crucial accounting concepts

In IFRS 9 and comparable topics from US GAAP, several accounting concepts are used repeatedly and important to understand these standards deeply: fair value, other comprehensive income, impairment, amortised cost, and hedge accounting. However, the accounting standards themselves do not elaborate the meaning of these concepts which is a challenge for readers not familiar with accounting. This section was written to solve this problem by offering a basic understanding of these concepts.

Fair value

IFRS 13 – Fair Value Measurement – defines fair value as:

the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

There are several factors that should be elaborated from this definition. The first factor is the price which must occur from the characteristic of an asset or a liability and is measured under current market conditions (IFRS Foundation 2023b). Therefore, it does not include transaction costs or transportation costs of the asset or liability. Secondly, orderly transaction means a transaction that is not a force transaction and have exposed to the market for a duration before the measurement date. This allows marketing activities around the transaction. Finally, market participants are independent of each other and are knowledgeable

of the asset or liability and the transaction. Furthermore, they can participate in the transaction and do it on their own will, which mean they are not forced to do so. (IFRS Foundation 2023b.)

To sum up, fair value is the price to sell an asset or paid to transfer a liability whereas the seller and buyer are independent of each other and do it voluntarily. Meanwhile, the price occurs from the nature of the asset/liability and the transaction should have exposed to the market for a period before being measured. US GAAP has a similar definition for fair value as IFRS (FASB, according to KPMG 2022).

Other comprehensive income (OCI)

Under IFRS, the total change in equity during an accounting period which excludes changes brought by transactions with owners in their capacity as owners is called “comprehensive income”. It includes profit or loss and other components of “other comprehensive income” (OCI). The components of OCI are other items accounted as income or expense that are unrecognized by companies in their profit or loss. To present profit or loss and OCI, companies can either present them in one single statement or two separate statements: a statement of profit or loss and a statement of comprehensive income. In case of the former, all items of profit or loss and OCI must be presented in two sections, while the latter requires the statement of comprehensive income to follow immediately after the statement of profit or loss. (IFRS Foundation, according to KPMG 2022.)

The US GAAP has a similar definition for comprehensive income and OCI. However, some specific items classified under OCI of US GAAP are different from those of IFRS. Moreover, US GAAP used the term “accumulated OCI” (AOCI) to mention the cumulative amount remaining in OCI at a specific time which is not a practice under IFRS. The format of the statement of profit or loss and OCI under US GAAP is like that under IFRS. (FASB, according to KPMG 2022.)

Under IFRS 9, financial assets can be classified as measured at amortised cost, Fair Value Through Profit and Loss (FVTPL), or Fair Value Through Other Comprehensive Income (FVOCI). Similar classifications might be used for the classification of financial liabilities under IFRS 9 or the classification of financial assets and liabilities under US GAAP. Therefore, it is necessary to understand fair value and OCI in advance. The concept amortised cost will be explained in in this sub-section below.

Impairment

Impairment is another important accounting concept of this Section that has been previously explained in Section 3.3 of this thesis. In general, permanently reducing the value of an

asset is an impairment (Tuovila 2023). Assume that a company has booked an asset which brings an amount of profits, cash flows, or other benefits. When the company tests the future value of that amount, or the future cash flow of that asset, and discovers that the future cash flow is lower compared to the current booked value, impairment occurs. In this case, the impairment loss will be recorded in the income statement, while the value of the impaired asset will be reduced in the balance sheet (Tuovila 2023). The difference between impairment and depreciation is that the loss from impairment is unexpected, whereas the cost of depreciation has been considered in advance (Tuovila 2023).

Under IFRS 9 and US GAAP, the impairment is measured by a model called “expected credit loss” model which allows the recognition of the impairment before the occurrence of the loss event (IFRS Foundation and FASB, according to KPMG 2022). Consequently, there will be a certain loss allowance for, for example, expected credit losses on financial assets.

Amortised cost

Amortised cost is a cost of a financial asset or financial liability and is measured in a specific way. Firstly, the principal repayments of a financial asset/liability will be deducted from its value at the initial measurement (the value when that financial asset/liability was measured for the first time). Secondly, a specific method called the effective interest method of any difference between the initial amount and the amount when the financial asset/liability matures will be used to combine the cumulative amortisation with the calculation result of the first step. Finally, for financial assets, the loss allowance explained above will be accounted in the calculation of the amortised cost. (IFRS Foundation 2023e.)

Hedge accounting

A company might possess several items (assets or liabilities) that are exposed to exogenous risks (risks that the entity cannot control by its own will) due to its business operation or investments. As a result, the company might face losses, especially in the value or the cash flow of those items. To protect itself from those losses, the company can designate one or several derivatives or non-derivatives to a specific item. When a pre-specified risk happens and causes a loss (or gain) to the value or cash flow of that specific item, the risk will also cause a change in the value of those derivatives. As a result, the change in the value of that specific item will be offset by the change in the value of those derivatives, hence reduces the income volatility of the company. In this case, the asset/liability chosen to be protected is called “hedge item”, while the derivative or non-derivative designated to reduce the volatility is called “hedge instrument”. (Singh 2017.)

To sum up, Silvia explains hedge accounting as:

designating one or more hedging instruments so that their change in fair value offsets the change in fair value or the change in cash flows of a hedged item.

Silva also listed some risks that a company might face like foreign currency risk, price risk, inflation risk, and credit risk. An example of hedge accounting can be found in their article in the list of references.

In summary, some concepts necessary for the understanding of IFRS 9 and its comparable topics under US GAAP are fair value, OCI, impairment, amortised cost, and hedge accounting. After absorbing all the knowledge in this sub-section, the readers might have equipped themselves with sufficient understanding to begin reading the explanation and comparison of these accounting standards which start immediately from sub-section 5.2.

5.2 Overview and scope

IFRS 9

IFRS 9 was created to replace its predecessor IAS 39 – Financial Instruments. The latter was complained by its users to be too complex, inconsistent with their management of business and risks, and too late in recognizing the credit losses on some financial instruments. IFRS 9 is the response to these criticisms. The effective date of IFRS 9 is on or after 1 January 2018, while it is possible to defer the implementation until 1 January 2023 simultaneously with the adoption of IFRS 17 for insurers and reinsurers. (PwC 2017b.)

Regarding the scope, IFRS 9 governs all financial instruments except for those which are specifically excluded from the scope of this standard. Any contract that increases both a financial asset of one entity and a financial liability or equity instrument possessed by another entity is classified as a financial instrument. Many financial assets and financial liabilities are considered financial instruments, from primary financial instruments like cash, receivables, and shares in other entities to derivative financial instruments like options, currency swaps, futures, or forwards. Readers interested can look at the definition of “a financial asset”, “a financial liability”, and “an equity instrument” in the document provided by KPMG 2022. (IFRS Foundation, according to KPMG 2022.)

US GAAP comparable topics

According to KPMG (2022), there is no single topic from US GAAP that can be comparable to IFRS 9 and its predecessor IAS 39. Several topics and sub-topics considered to be relevant to these two standards from IFRS are Subtopic 320-10, Topic 321, Topic 326, Subtopic 505-10, and Topic 860 (FASB, according to KPMG 2022).

The scope of all those topics and subtopics is similar to that of IFRS 9: all the financial instruments excluding specifically those outside of the scope. The definition of a financial instrument is the same as under IFRS 9, while financial instruments also include a wide range of financial assets and liabilities like its IFRS counterpart. However, one difference is that while IFRS 9 classifies a contract that will or may be settled in the own equity instrument of an entity as a financial asset or financial liability, US GAAP does not address this problem. Moreover, although both IFRS and US GAAP mention residual interest rate in the definition of equity instruments, the specific details of what comprise a residual interest rate are different under these two global accounting standards. Another difference in the scopes of the two accounting standards is that IFRS 9 is applied to all financial instruments, no matter a financial instrument is a security or not, while US GAAP has a specific definition and accounting principles for a “security”. (IFRS Foundation and FASB, according to KPMG 2022.)

5.3 Classification of financial assets

IFRS 9

IFRS 9 uses three measurement categories to classify financial assets on initial recognition: amortised cost, fair value through other comprehensive income (FVOCI), and fair value through profit or loss (FVTPL). The classification is based on two factors: the nature of the contractual cash flows of the financial assets and their business model. (IFRS Foundation 2023e.)

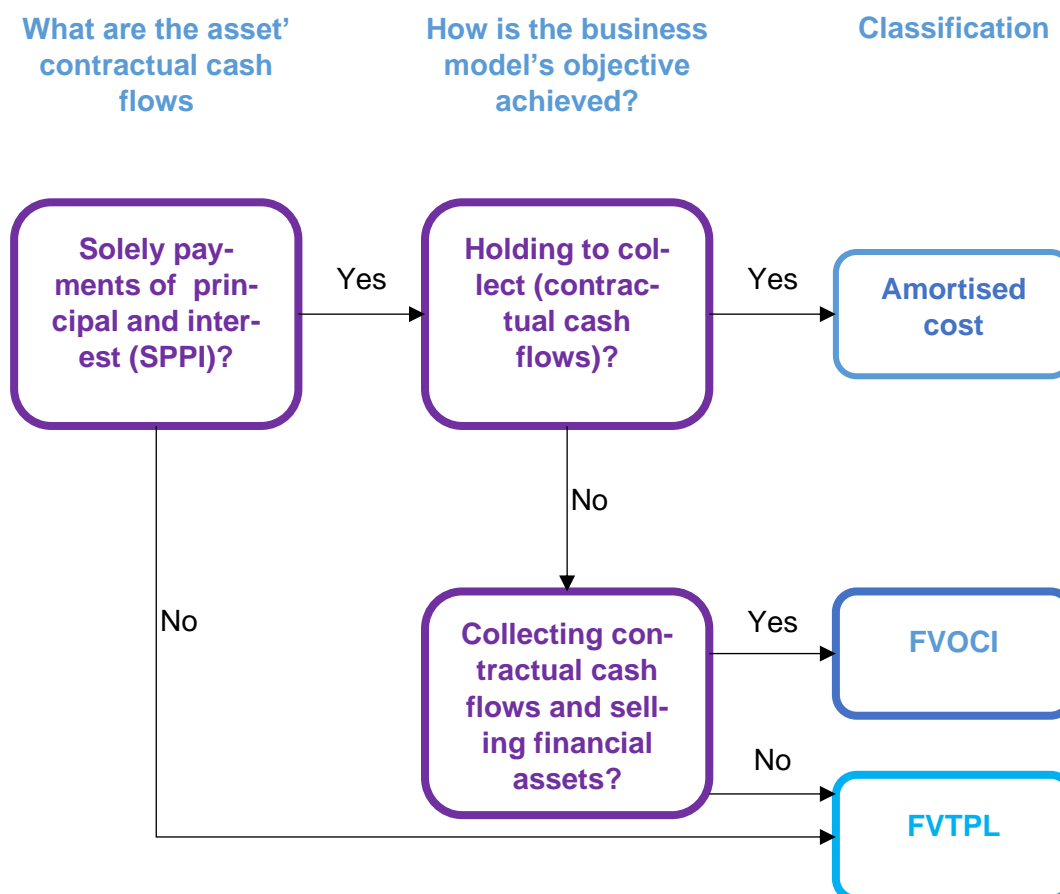


Figure 2. IFRS 9 criteria for the classification of financial assets (KPMG 2021)

The figure above illustrates the criteria used to classify financial assets. Although the result does not change regardless of which criterion is used first, these criteria will be analysed according to the order presented in the figure, from left to right. Firstly, on the first column on the left, a financial asset is assessed based on the nature of its contractual cash flows with a model called Solely Payments of Principal and Interest (SPPI). In other words, this model determines whether the cash flows generated from the contractual terms of a financial asset on a specific date are solely payments of principal and interest. The IFRS Foundation defines “principal” as the fair value of a financial asset when it is recognized for the first time (initial recognition), while “interest” reflects credit risk and the time value of money. While changes of the former might be witnessed over time, the consideration for other risks and costs for lending and a profit margin can be included in the latter. (IFRS Foundation, according to KPMG 2021.)

Secondly, the business model which reflects the way a financial asset is managed to generate cash flows is identified. In other words, the business model determines if a company manages its financial assets by holding to collect the cash flows, or both holding to collect the cash flows and selling the financial assets, or other methods. If the business model is

held-to-collect, the main objective is to collect cash flows, while selling them to make a profit is low in frequency and volume. On the other hand, the business model both-held-to-collect-and-for-sale considers both holding a financial asset to collect cash flows and selling it to make profits primary aims of management. Finally, other business models include trading, managing assets on a fair value basis, and maximizing the profits from sell. (IFRS Foundation, according to KPMG 2021.)

Looking at the figure above, firstly, the SPPI test will be used to classify a financial asset. If it fails the SPPI test, it will automatically be classified as measurement at FVTPL. In case it passes the SPPI test, its business model will be further examined. If the business model is held-to-collect, the classification is measurement at amortised cost. If the business model is both-held-to-collect-and-for-sale, the classification is FVOCI. If the business model of a financial asset is neither held-for-collect nor both-held-to-collect-and-for-sale, FVTPL is its classification. (IFRS Foundation, according to KPMG 2021.)

Several important points regarding the classification of financial assets are written in IFRS 9. Firstly, although a financial asset is qualified to be measured at amortised cost or FVOCI, an entity can designate that financial asset to be measured at FVTPL. Such decision is irrevocable, while it is only accepted if a measurement or recognition inconsistency is eliminated or reduced significantly by the designation. Secondly, reclassifications of financial assets are not permitted, unless a change in the business model of an entity leads to a significant difference in its operation. It is expected that these reclassifications will happen very infrequently. (IFRS Foundation, according to KPMG 2021.)

US GAAP

Whereas IFRS 9 has broad classification categories that can be applied to all financial assets: amortised cost, FVOCI, FVTPL, this does not exist under US GAAP. However, under US GAAP, certain financial assets are classified using some categories. The classification categories for debt securities are trading, held-to-maturity, and available-for-sale, while the classification categories for loans (purchasing loans included) and trade receivables are held-for-sale and held-for-investment. (FASB, according to KPMG 2022.)

This paragraph explains all the classification categories of financial instruments listed above. Like IFRS 9, these classification categories based mainly on the management of the financial assets. Firstly, regarding the classification categories of debts, a trading security is a security that is bought and held with the primary purpose of selling in the short-term. Moreover, a mortgage-backed security connected to mortgage banking activities and is held to be sold in conjunction with them is also classified as a trading security. A held-to-maturity debt is a debt whose primary method of management is to hold until the maturity date. Debt

securities that cannot be classified as either trading or held-to-maturity will be classified as available-for-sale. Secondly, regarding the classification categories of loans and trade receivables, a held-for-sale security is a security bought to be sold immediately or soon. A held-for-investment security, however, is a security hold for the foreseeable future or to the maturity date or payoff (PwC 2022). (FASB, according to KPMG 2022.)

Table 4. Summary table of classification categories of financial assets under IFRS 9 and US GAAP, based on the content of IFRS Foundation and FASB, according to KPMG (2022)

Accounting standards	Financial assets	SPPI test (IFRS)	Business model (IFRS) / Classification category (US GAAP)	Measurement category
IFRS 9	Financial assets	Pass	Held-to-collect	Amortised costs
		Pass	Both-held-to-collect-and-for-sale	FVOCI
		Fail	Other business model	FVTPL
US GAAP comparable topics	Debt securities	N/A	Trading	FVTPL
		N/A	Held-to-maturity	Amortised cost
		N/A	Available-for-sale	Fair value
	Loans and trade receivables	N/A	Held-for-sale	Specific guidance
		N/A	Held-for-investment	Amortised cost

A summary table is created to summarize the information and compare these classification categories to those under IFRS 9. In summary, a similarity between IFRS and US GAAP in the classification of financial assets is that they both use measurement categories like amortised cost and FVTPL. However, as the concepts of SPPI and business model do not exist

under US GAAP, this US accounting principle uses classification categories for certain financial assets instead. Another difference between these two global accounting standards is that the measurement category of FVOCI does not exist under US GAAP. However, like IFRS 9, available-for-sale debt securities are measured at their fair value. The last difference is that US GAAP has specific accounting guidance for loans and loans held for sale, while IFRS 9 applies its criteria broadly to all financial assets. (FASB, according to KPMG 2022.)

Finally, like IFRS 9, US GAAP allows the irrevocable designation at FVTPL for the initial recognition of financial assets, but the requirements are different from those under IFRS 9. Moreover, a significant difference between IFRS 9 and US GAAP is that US GAAP allows the reclassification of certain financial assets like debt securities, loans and trade receivables if the management and the ability to holding these financial assets change. However, the requirements and the frequency required for these reclassifications under US GAAP differ from those under IFRS 9. (FASB, according to KPMG 2022.)

5.4 Classification of financial liabilities

IFRS 9

Like the classification of financial assets, the classification of financial liabilities is based on measurement categories. However, there are only two measurement categories applied: amortised cost and FVTPL. Financial liabilities that are held for trading (derivatives included) or decided to be measured at FVTPL when they were recognized for the first time will be measured at FVTPL. These are two sub-categories for financial liabilities measured at FVTPL. IFRS 9 does not permit reclassifying financial liabilities. (IFRS Foundation, according to KPMG 2022.)

US GAAP

Even though financial liabilities under US GAAP are measured at either amortised cost or FVTPL like under IFRS, the former does not regulate the classification categories for financial liabilities. In other words, even though the classification of measurements is the same, IFRS pre-scribes the conditions for them, while US GAAP does not. Furthermore, there is no sub-category for financial liabilities measured at FVTPL like under IFRS. However, US GAAP does not permit the reclassification of financial liabilities, which is a similarity to the principle of IFRS 9. (FASB, according to KPMG 2022.)

5.5 Measurement

IFRS 9

On initial measurement, financial assets and financial liabilities under IFRS 9 are measured at fair value combined with directly attributable transaction costs. However, financial instruments whose classification measurement category is FVTPL are measured initially at fair value. Moreover, trade receivables will be measured initially at the transaction price whose definition is in the revenue standard. (IFRS Foundation, according to KPMG 2022.)

On subsequent measurement, financial assets are measured at either fair value or amortised cost. Financial liabilities that are not measured at FVTPL will be measured subsequently at amortised cost. Moreover, IFRS 9 also defines whether to recognize the changes in the value in OCI or in profit or loss. (IFRS Foundation, according to KPMG 2022.)

US GAAP

On initial measurement of financial assets and financial liabilities, like IFRS 9, US GAAP also used transaction costs and fair value. However, a difference is that US GAAP uses cost as a measurement base, which differs from the practices of IFRS (IFRS only uses fair value). (FASB, according to KPMG 2022.)

On subsequent measurement, financial assets are measured at fair value or amortise cost, which is similar to IFRS. However, US GAAP uses the lower of cost and fair value to measure held-for-sale loans and an alternative measurement method for equity securities. These two factors do not exist under IFRS. Regarding the subsequent measurement of financial liabilities, financial liabilities are subsequently measured at amortised cost if they are not measured at fair value. (FASB, according to KPMG 2022.)

5.6 Impairment

IFRS 9

The impairment model of IFRS 9 can be applied to the financial instruments listed below:

- *Financial assets measured at amortised costs,*
- *Investments in debt instruments measured at FVOCI,*
- *Certain loan commitments and financial guarantee contracts issued,*
- *Lease receivables,*
- *Contract assets,*
- *Loans and receivables between entities under common control.*

The impairment model is not applied to reinsurance contracts held. (IFRS Foundation, according to KPMG 2022.)

As briefly introduced in sub-section 5.1.3, both IFRS 9 and US GAAP use the expected credit loss (ECL) model to recognize impairment. In other words, an impairment loss can be recognized before the occurrence of a loss event. Under IFRS 9, the two measurement bases under the general approach of the ECL model are the 12-month ECLs and lifetime ECLs whose use is based on the significant increase in credit risk. If there has been a significant increase in credit risk since initial recognition, lifetime ECLs will be used to measure impairment. However, if the criteria for a significant increase in credit risk are no longer effective, the 12-month ECLs will be used to measure impairment of the same loss and financial instruments. (IFRS Foundation, according to KPMG 2022.)

IFRS defines “12-month ECLs” as the ECLs resulting from possible default events occurring to a financial instrument within 12 months since its reporting date. Similarly, “lifetime ECLs” are all possible default events occurring within the whole life period of a financial instrument. IFRS does not define “default” and “significant increase in credit risk” but leave the definition to entities using this accounting standard. (IFRS Foundation, according to KPMG 2022.)

Three factors must be included in measuring ECLs:

- A probability-weighted amount which can be calculated by the evaluation of a range of probable events,
- The time value of money,
- Reasonable and supportable information about the past, the present, and the future events and economic conditions.

Moreover, on initial recognition, some financial assets are already credit-impaired. The ECLs of these financial assets are measured as the difference in the lifetime ECLs since they are first recognized in the financial statement. (IFRS Foundation, according to KPMG 2022.)

US GAAP

The financial instruments featured in the scope for impairment of US GAAP are similar to those under IFRS to some extent. For example, the ECL model of US GAAP can be applied to:

- Financial assets measured at amortised cost,
- Net investments in leases,
- Contract assets,

- Certain loan commitments and financial guarantee contracts issued (those not classified as insurance or derivatives).

However, the ECL model under US GAAP also covers other off-balance sheet credit exposures, while there is a separate credit loss model applied to available-for-sale debt securities. These two factors are different from the principles of IFRS. (FASB, according to KPMG 2022.)

Different from IFRS, US GAAP only uses one measurement base for its ECL model: the lifetime ECLs approach used throughout the life period of a financial asset. Therefore, it is not necessary to assess whether there has been a significant increase in credit risk of a financial asset. Moreover, under US GAAP, there is no definition for “lifetime ECLs”, “12-month ECLs”, or “default”, while the “significant increase in credit risk” is not a measurement indicator for ECLs. For the measurement approach for available-for-sale debt securities, it requires the recognition of impairment in profit or loss only when the loss event happens, which is different from the ECL model. (FASB, according to KPMG 2022.)

Regarding the measurement of ECLs, IFRS 9 requires three factors: an unbiased and probability-weighted amount, time value of money, and reasonable and supportable information of the past, present, and future economic conditions. Under US GAAP, only the last factor is required, while the two first factors are permitted but not compulsory. Moreover, there is no concept of financial assets that are credit-impaired on initial recognition, but it uses the concept of purchased credit deteriorated (PCD) assets instead. (FASB, according to KPMG 2022.)

5.7 Hedge accounting

As hedge accounting is a complicated topic, it will be analysed in smaller sub-sections. To make the thesis concise while still provide sufficient information of the accounting standards, some information like hedge items, hedge instruments, and requirements for hedge accounting will be discussed in detail, while other information like hedge accounting models will be described only briefly.

1. Overview and hedge accounting models

IFRS and US GAAP share many similarities regarding the overview of hedge accounting and its models. Firstly, an entity can practice hedge accounting voluntarily which enables it to use a different basis from the that otherwise regulated in either IFRS or US GAAP to

selectively measure its assets, firm commitments, and liabilities. Moreover, with hedge accounting, the recognition of gains or losses on derivatives in profit or loss can be deferred. (IFRS Foundation and FASB, according to KPMG 2022.)

Secondly, both IFRS and US GAAP use three models for hedge accounting:

- Fair value hedges of fair value exposures,
- Cash flow hedges of cash flow exposures,
- Net investment hedges of foreign currency exposures on net investments in foreign operations.

However, although all three hedge accounting models are used, the requirements of applying them are different under IFRS and US GAAP. (IFRS Foundation and FASB, according to KPMG 2022.)

2. Criteria for hedge accounting

IFRS 9

Under IFRS 9, an entity can only use hedge accounting if all three conditions are met. Firstly, only eligible hedging instruments and hedged items are included in the hedging relationship. Secondly, when the hedging relationship is first recognized, the formal designation and documentation of it and the risk management objective and strategy of an entity for applying the hedge are available. Such documentation explains the hedging instrument, the hedged item, the hedged risk, and the assessment of the hedge effectiveness. Finally, all requirements for hedge effectiveness are satisfied by the hedging relationship. (IFRS Foundation, according to KPMG 2022.)

US GAAP

Similar to IFRS, US GAAP uses three requirements described above for all three models of hedges. However, differences exist in the details of these two accounting standards. Firstly, regarding the hedged risk, the definition of a risk eligible to be hedged is different. Secondly, regarding the formal documentation, US GAAP uses both prospective and retrospective assessment of hedge effectiveness, while IFRS only assess hedge effectiveness prospectively. Moreover, the time of documenting the hedging relationship is longer under US GAAP. Finally, the requirements for hedge effectiveness are different under these two global accounting standards. (IFRS Foundation and FASB, according to KPMG 2022.)

3. Hedged items and hedging instruments

IFRS 9

Firstly, regarding hedged items, an entity can choose an item in its entirety or only a component of an item to be the hedged item. That item must be exposed to a specific risk(s) selected to be hedged and is reliably measured. For example, a hedged item can be recognised assets or liabilities, firm commitments that have not been recognized, net investments in foreign operations, and aggregated exposures which is a mix of non-derivative exposure and a derivative exposure. An investment in equity instrument can be designated as a hedge item. (IFRS Foundation, according to KPMG 2022.)

Secondly, regarding hedging instruments, some contracts between the reporting entity and an external party are qualified to be hedging instruments. These include all derivatives measured at FVTPL and certain non-derivative financial assets and non-derivative financial liabilities. However, the use of derivatives measured at FVTPL is subject to some limitations: written options and derivatives embedded in hybrid contracts without separate accounting cannot be used as hedging instruments. However, written options that are designated to offset purchased options are qualified to be a hedging instrument. (IFRS Foundation, according to KPMG 2022.)

US GAAP

Firstly, regarding the qualifying of hedged items, the requirements and the items that can be designated under US GAAP are similar to those under IFRS. However, different from IFRS, US GAAP does not allow the designation of aggregated exposures or an equity investment as hedged item. (FASB, according to KPMG 2022.)

Secondly, when it comes to qualifying hedging instruments, both similarities and differences exist between IFRS and US GAAP. Regarding similarities, US GAAP also allows the use of all derivatives measured at FVTPL as a hedging instrument. Moreover, derivatives embedded in hybrid contract without separate accounting cannot be used as a hedging instrument. The two differences are: the designation of written options is not limited (even though there are additional hedge criteria), and non-derivative can only be used as hedging instruments for certain hedged items. (FASB, according to KPMG 2022.)

4. Discontinuation of hedge accounting

IFRS 9

When the criteria for hedge accounting are not satisfied by a hedging relationship, an entity will discontinue hedge accounting prospectively. IFRS does not allow voluntary discontinuation when the qualifying criteria are still effective. (IFRS Foundation, according to KPMG 2022.)

US GAAP

When a hedging relationship does not meet the qualifying requirements for hedge accounting, an entity reporting under US GAAP will stop practicing hedge accounting. This is a common point between US GAAP and IFRS. However, entities reporting under US GAAP can discontinue hedge accounting voluntarily even if the qualifying criteria are still effective. (FASB, according to KPMG 2022.)

6 Data collection and analysis methods

6.1 Data collection method

This part of the thesis justifies the reasons behind the method of collecting empirical data. It does this by explaining three factors: the case company, the semi-structured interview method, and the quality and confidentiality of data as in the prelisted order.

Definition and introduction to the case company

In this research, a case is defined as an insurance or reinsurance company that is or has finished transferring from US GAAP to IFRS. Even though it is more critical to study the phenomenon with many companies, due to several reasons, only one case is studied in this research.

The first reason is that the case can be argued to be a critical case based on its size. The company chosen to be studied is a global (re)insurance company with more than 70 offices worldwide and more than 120 years of experience in the insurance industry. In 2022, its net premium written was more than 39 billion USD, while its total revenues exceeded 43 billion USD. The net income attributable to common shareholders and the Basic Earnings per share for the same year were more than 450 million USD and more than 1.45 USD, respectively. Regarding financial health, in 2022, both the Return on Equity and Return on Investment ratios exceeded 2.0%. Because of the giant size of this global insurer, many factors can be study to gain more insights of the phenomenon. Secondly, for practical reasons, it is more time-saving and efficient to study one case deeply than studying many companies in the short duration of the research implementation. These are the two among four reasons to justify the application of single case study, according to D O’Gorman & MacIntosh (2015).

Regarding the transition from US GAAP to IFRS, the case company has been doing financial reports under US GAAP in the past. However, within 5 years ago, it decided to adopt IFRS for the consolidated financial statements starting from a pre-selected effective date. For confidential reason, the effective date of reporting under IFRS will not be publicized in this thesis. However, it is a recent year, and current information regarding accounting standards like IFRS 9 and IFRS 17 are very relevant as they are the focus of the case company during the transition.

Semi-structured interview method

To compensate for the small number of cases, the data was collected through having a semi-structured interview with three professionals working in the project of transferring from

US GAAP to IFRS of the case company. As a result, the data collected will be more versatile, while the problem will be studied more holistically. Moreover, to ensure the study is holistic, the interviewee chosen had expertise in different aspects of the transfer: one working in the investment side and IFRS 9, one working in accounting and IFRS 9, and one working with IFRS 17. The role of each interviewee will be discussed in more details in Section 7 – Empirical data collection.

The semi-structured interview method was chosen to study the cases for several reasons. Firstly, to collect insightful and diverse information to explain a phenomenon, the most effective way is to interview professionals in the field (D O’Gorman & MacIntosh 2015). However, because focus groups are hard to organize and offer less control for the interviewer, using a 1-on-1 interview with the professionals will be more feasible (D O’Gorman & MacIntosh 2015). Secondly, the semi-structured interview was chosen because it is not time-consuming and without clear direction like the unstructured interview method. Furthermore, unlike structured interviews, it allows feedback from interviewees and opens opportunities for deeper but unplanned discussion about the topic (D O’Gorman & MacIntosh 2015).

Data quality and confidentiality

Firstly, regarding the quality of data, the interviews were recorded with the consent of the interviewees. The recordings were revised and combined with note taking from the thesis author to ensure that the data collected is as objective as possible.

Secondly, regarding confidentiality, as per the requests of the case company, all information regarding the case company and the three professionals will be published anonymously. Therefore, there will be no information on, e.g., the company name or the name and the title of the interviewees. The company will be mentioned as “Company X” or “(Re)insurer X”, whereas all interviewees will be mentioned as “he” in this thesis. Moreover, as there was another accounting framework used internally by X, this framework will be mentioned as “A” in the thesis.

6.2 Data analysis method

After collecting empirical data, the thesis worker discovered that each interviewee mentioned many factors of the phenomenon and expressed their opinion or knowledge of those factors. As each of these factors describe an aspect of the phenomenon, combining them into themes and derive conclusions from them will give a general picture of the transfer and help understand it deeply. As a result, the suitable data analysis method for this thesis is the Thematic Analysis, because it is very effective to archive the data analysis aim.

In short, Thematic Analysis is a flexible and accessible approach to analyse large sets of qualitative data, regardless of the research method and philosophy. The process includes coding qualitative data into comprehensive codes, then categorize those codes into themes (or a category consists of codes with highly related content) and recognizing patterns or relationships among those themes. The result of that analysis process is rich descriptions, explanations, and new theories. For data codes, a unit of data which is a coded extract of data will be used to describe or explain the code. (Saunders et. al. 2016.)

The data analysis process of this thesis will follow the procedures described above and will be conducted manually. In this thesis, a unit of data is a sentence or a group of phrases which is taken from the transcript of the interview to explain or express the idea surrounding the coded data. In case there is any contradiction or similarity between the answers of the interviewees, they will also be analysed in this thesis.

7 Empirical data collection

This part includes the interview answers of all interviewees. Three main questions in the interviews address all the aspects needed to be researched:

1. Why did insurer X decide to transfer from US GAAP to IFRS? (Motivation)
2. What challenges did X face during the transition from US GAAP to IFRS? (Problem)
3. What are some solutions that have helped X overcome those problems? (Solution)

7.1 Interviewee 1 – Investment technical support

The first interviewee is a technical support for a team working on IFRS. He worked mostly on the investment side and dealt with IFRS 9 – Financial Instruments.

For the first question, the interviewee gave an interesting context of why X used US GAAP in the first place. As a big (re)insurance company, X considered its actions towards shareholders important. To increase the stock price, it needed more liquidity, and it needed more money invested in the company from the investors. Therefore, to get more liquidity, it decided to be listed in the US Stock Exchange which required it to report under US GAAP as a result.

Next, he explained that one reason for the change was for reporting simplification. Under US GAAP, balance sheet and profit and loss statement were very structured, while it was less structured under IFRS. Another reason was to align more with competitors, as many insurers had either adopted IFRS or were moving towards it. If X wanted to be comparable to other companies, it needed to transfer to IFRS. The last reason he gave was that IFRS was widely used by many companies in the present (he gave the number of 80-90% of companies as an illustration).

For the second question, firstly, he gave a problem of system gap. When the accounting standards were replaced, new modules for reporting and accounting needed to be setup. However, it was not clear how everything should be setup. Moreover, he mentioned the problem of understanding these accounting standards. As US GAAP was rules-based while IFRS was principles-based, X must decide where to go and how to interpret IFRS to bring the best fit to the company. Sometimes, on the audit side, it was wondered if some decisions of X were allowed under IFRS. One aspect of the transfer – the IT (Information Technology) system, was not a big problem according to him. The reason was because the change from US GAAP to IFRS was not huge but only the inputs and outputs were different. As a result, the change in the IT system did not affect the workflow of the people.

Regarding investment reporting on the profit and loss side, he explained that there was no dramatic change, as the change was primarily in the technical side of accounting. He also mentioned that when doing reporting under IFRS, comparable numbers from the previous year must be presented. This was also a factor necessary during the transfer. Finally, when asked about the cost of the implementation of the transfer, he answered that the costs were much higher, but he did not know the exact number or detail.

For the last question, given his position, he answered that it was beyond his responsibilities to answer this question. Therefore, no data from this interviewee was collected for this question.

7.2 Interviewee 2 – Investment and IFRS 9 expert

The second interviewee had an accounting background and had worked on the IFRS project for two years. Before moving to X, he had approximately 10 years of working experience in a global accounting and auditing company. When he was working on the IFRS project at X, his team focused mostly on the investment side and IFRS 9. Therefore, he could be considered as an expert in the IFRS implementation.

For the first question, the second interviewee gave four reasons. Firstly, all the peers of X were reporting under IFRS while X was not. Therefore, it was very important for X to be comparable to its peers. Secondly, certain local entities of X were required to report under IFRS for their local regulations. Therefore, if X changed the systems for local entities, it was reasonable to conduct the change to the whole group. Finally, beside US GAAP, X used a framework to report internally its financial results. For confidential reason, this framework will be called “A”. While X used both US GAAP and A for external and internal reports respectively, IFRS had many similarities with A. Therefore, X decided to adopt IFRS which could replace both US GAAP and A and could be used for both external and internal reporting. Finally, as US GAAP was rules-based but IFRS was principles-based, X could be more flexible with its financial reporting.

For the second question, he provided rich information on the problems that X faced during the transition. The first problem lied in understanding and applying new IFRS standards on portfolios of X. As IFRS 17 was a new standard, it was difficult to know where and how to book in the real world. The second problem was the integration of the IT system. Before, when X used US GAAP, there were many subledgers for the purpose of accounting and inputting data. When it transferred to IFRS, new subledgers must be built in the IT system which was a new project individually. However, the system did not function as well as expected, especially regarding insurance liabilities (the investment side was working well

though). He clarified that, understanding IFRS 9 was not a problem anymore, as they knew clearly what to book and where to book, but the system did not work smoothly. This contradicts the data collected from interviewee 1 who stated that the problem lied in understanding the standard, not in the IT system. The contradiction will be resolved in part 8 – Empirical Data Analysis of this thesis.

Besides the problems above, the second interviewee gave some insights on the management of people as a challenge. Because of the size of the transfer project, many new people were needed. The people selected did not need to have experience in IFRS in advance, but it was sufficient if they had potentials. In case of this interviewee, he had more experience in accounting rather than working with financial instruments, but he transited to the team because he was eager to learn new thing. The problem was to manage many people and involving management on a big project which was a failure in the opinion of this interview. Furthermore, according to him, another problem was adjusting processes. After understanding the standards and knowing what to book with the subledgers, it was necessary to apply those understanding with the real situation of X. Some processes must be adjusted to cope with this requirement. Finally, regarding the costs of implementation, he thought that X was overspending. The project was not deliverable, while many people were booking manually in the system. The company was in a worse shape than what they expected.

However, X found some solutions to overcome the challenges listed above. Firstly, to address the problem of the IT system, X started to decrease the level of requirement for the integration. In this case, it used MVP – minimum viable product. In other words, although the product of a project did not have all functions desired at the beginning of the project, it was still accepted as long as it satisfied the minimum requirements for its functionality. Secondly, regarding the problem of managing the people and involving management, status like who was working and who was leaving was provided to the management to change people in the project. Moreover, a plan B implemented was to use external advisors for IFRS booking.

Another solution addressing the management problem was to use agile management. According to this interviewee, agile management meant one goal would be broken down into smaller goals. Instead of achieving the original big goal in a long period of time, the team would try to achieve smaller goals in one or two weeks. They did this by having meetings weekly and moved on to another goal if the pre-selected goals for that week was not achieved. Finally, to explain another solution to the malfunctioning of the IT system, he mentioned manually booking and outsourcing and using external advisors. Outsourcing was used especially for building the system, while he further explained manually booking. Under

IFRS 9, some financial instruments would be measured at fair value, and the change in the value would be recorded in the profit and loss (P&L). However, when the system did not work properly, it would not measure the fair value correctly or would record the change in OCI instead of P&L. X solved this by having people manually book these transactions into the system.

7.3 Interview 3 – IFRS 17 and “A” expert

The last interviewee was an expert working on framework A and IFRS 17. He gave insights on the phenomenon from the perspective of working with these standards and frameworks.

For the first question, he explained that the major reason for adopting IFRS from US GAAP was comparability. IFRS 17 was issued in 2017, and many competitors of X were already in IFRS. Therefore, X decided to adopt IFRS so that everything would be on the same level with its competitors. As X was a late adopter of IFRS compared to its competitors, this brought both advantages and disadvantages. Regarding advantages, X would observe the mistakes of others and make better decisions for themselves. On the other hand, one disadvantage that X faced was the impact on its share price. This happened because X was still providing financial data under US GAAP, while people were not interested in US GAAP anymore. He illustrated this point by informing that the share price targets had reduced two times for the year 2023, but competitors who had started IFRS already in 2023 witnessed a huge increase in financial profits.

For the second question, he stated that there was still a lot of work needed to be done regarding IFRS 17. The problem was that as X moved closer and closer to the deadline of the project, it needed to cut its demands for the product time by time. As a result, instead of a full product which had been expected from the beginning, the product then was a minimum viable product (MVP). However, according to him, the good news was that (implementing) IFRS 17 was better than anyone else (perhaps he was referring to the competitors or people working with different standards from X), because it was similar to the accounting framework A used internally by X in the past.

The second problem was the technical aspect of IFRS 17, especially in risk adjustment (RA). Firstly, the concept of RA did not exist under US GAAP or framework A before. Secondly, it was difficult to find the interval of confidence for RA which indicated in percentages how confident that a risk would happen. He gave an example of a market research conducted by a business consultant about the impacts of IFRS 17 on insurers and reinsurers. The research showed that some calculated the interval of confidence for RA as 90%, while

others calculated it as 60%. In this case, he explained, the one with 60% interval of confidence would benefit more because the risk was lower, while differences in the percentages were a challenge. Thirdly, one problem was to apply RA. To apply RA, X would bundle insurance contracts from different businesses together and apply RA to all of them. However, as each contract was specific and different, this led to the difficulty of applying RA and a reduction in accuracy. This was also considered as a technical problem of IFRS 17, according to him.

Other problems that X faced during the transition was related to the people working in the reporting. As these people had been used to working with US GAAP, the huge difference between US GAAP and IFRS was a challenge for them. Moreover, IT system was a problem, as a different system needed to be used and built from the scratch. It was necessary to use MVP for the IT system, he said. However, he positively believed that X was on track, even though compared to US GAAP, IFRS was *“definitely harder”*. Generally, he believed in the benefits brought by IFRS: improving the financial results, easier to be used by analysts partially because of the presentation of the balance sheet, and more transparent than US GAAP.

To answer the third question about the solutions, he gave two solutions. The first solution was an educational event that would happen for a whole working week. During this week, information regarding IFRS and the transition would be presented. Employees could participate in this event, online or offline, from different offices. There might be two sessions with the same content happening at different times which allowed employees to participate with flexibility. Moreover, recording might be available. As the event happened many times during a year, employees could use any suitable opportunity to update their knowledge of IFRS and the current situation. The second solution was the simplification of the wants of the managers regarding the final product. There were experts in the committees that would approve the products of a project, and these experts demanded simplicity in general.

8 Data analysis result

8.1 Coding empirical data

Because the phenomenon is researched from these aspects: motivation, problem, and solution, they will be used to code and analyse empirical data. Codes related to motivation will start with MTV which stands for motivation, while codes categorized under the problem or solution of the phenomenon will start with PRB and SOL, respectively. A summary table of all codes, the explanation of those codes, and the unit of data will be presented in Appendix 1. In summary, 18 codes were created from the answers of all three interviewees.

Before these codes are grouped into themes and analysing those themes, there should be some comments on the differences and similarities of the answers of the interviewees. Firstly, regarding the contradictions, the biggest contradiction lies in the answers of interviewee 1 and interviewee 2. While the former stated that the problem was not the IT system but the understanding of the accounting standards, the latter stated otherwise. In this case, the thesis worker decided to consider IT system as a problem in the transition as according to the second interviewee.

The reason is because the responsibility of the second interviewee was broader and more aligned with the transfer from US GAAP to IFRS. Because all interviewees worked in different positions with different responsibilities, the differences between their answers had been expected. However, as the first interviewee worked on the investment side as a technical support, while the second interviewee dealt with the implementation of IFRS of a whole group, the perspectives of the latter should be used to analyse the general phenomenon. Moreover, when asked whether understanding the standards or the IT system was the problem (because the second interview happened before the first), he stated that it was the IT system. Although X fully understood the requirement of IFRS 9, the system did not work properly as expected.

Secondly, regarding the similarities among the data, each interview shared similar information on the same topic. For example, all interviewees answered that the comparability with the competitors were an important factor for the transition, while they all mentioned IT system as a crucial aspect of it. These similarities will be helpful in grouping the codes into common themes.

8.2 Finding themes among codes

Based on the information provided by each code, 10 common themes were created. Some themes contain several codes with similar content, while other themes have only one code

with specific content. From the perspective of three aspects, the number of codes for motivation, problem, and solution is two, five, and three, respectively.

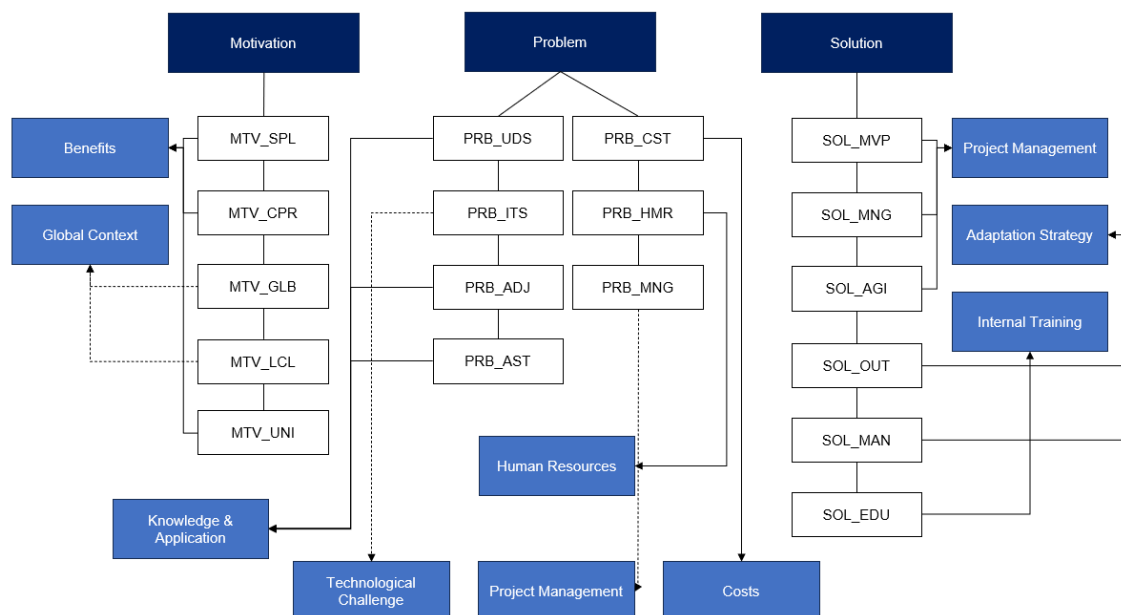


Figure 3. Grouping codes into themes

The thesis includes only the analysis of these codes and themes. However, the meaning of these themes is further explained in the Appendix 1 of this thesis.

8.3 Empirical data analysis result

From 18 codes and 10 themes generated from the empirical data, it would be said that the phenomenon is very complex. However, it is more effective to break down the phenomenon into three aspects and analyse it with those three aspects: motivation, problem, and solution.

For the first aspect, one primary source of motivation is the benefits brought by the adoption. If the case company transfers from US GAAP to IFRS, it will be more comparable to its competitors who are either using IFRS or moving towards it. And as stated by the third interviewee, analysts are interested in IFRS more than US GAAP. Another benefit is the simplification of financial reporting, as principle-based IFRS will allow more flexibility in reporting than rules-based US GAAP. Moreover, as the case company used two accounting standards externally and internally at the same time, adopting IFRS will unify its accounting system and might help reduce its complexity. Another source of motivation is the global implementation of IFRS. As the case company transferred to IFRS for its local branches, it was beneficial to transfer for the whole group also.

For the second aspect, it can be concluded that the case company faced many complex problems. Firstly, the IFRS accounting standards were new and very different from US GAAP. Therefore, it took a lot of effort to understand them and to apply them into the real portfolios of the case company. Secondly, however, even after the case company had understood the accounting standards like IFRS 9, the IT system was a big problem because it did not function properly with new subledgers and data from IFRS. This required more money and effort for manually booking and use of external advisors.

Thirdly, managing the people working at the transfer project was another problem, as many people were involved, while it was hard to include management in the project. The fourth problem is also related to the people working at reporting who had been used to using US GAAP. Because IFRS was significantly different from US GAAP, it was a difficult for them to adjust to the new standard. Finally, the implementation of IFRS resulted in high costs but could not deliver products as good as what had been expected. Many people were manually booking, whereas the level of requirement for the products needed to be reduced.

Moving one step further from the themes and codes, it can be witnessed that the transition from US GAAP to IFRS is a complex problem. Firstly, regarding the theoretical framework, the transition requires broad and deep knowledge of many topics. In this research, the thesis included information of the insurance industry, IFRS and US GAAP, and IFRS 17&9 from IFRS and their comparable topics from US GAAP. Although each of these subjects contains a lot of information, they are only a small portion of all the knowledge required for the transition. Moreover, they only stay as theories which implies more complex problems when being applied into the real situation of a company.

Secondly, regarding the empirical data, many people are affected by the transition, while many of them could only work on a specific part of the transition and not the whole picture. For example, all three interviewees were from different departments and focused on a different topic of IFRS. There were differences and limitations in their viewpoints, which could be derived from the transcript of the interviews. Furthermore, there were still many things needed to be done, even though the transition had been started for a long time.

To cope with its challenges, the case company reached multiple solutions from different aspects. Firstly, regarding project management, the management decided to decrease the level of requirement for the products which led to the acceptance of MVP. Moreover, to solve the difficulty to manage a lot of people, the status of the people working and leaving the project was updated continuously so that changes could be made on time. One highlight on project management solutions is the implementation of agile management which enables

problem-solving and communication on a shorter period. Secondly, related to the technological problem with the IT system, X outsourced its workforce and had people manually booking as two adaptation strategies. Finally, realizing the importance of transferring the knowledge to the people, X held an education week multiple times per year to give information. Through training sessions, employees could understand the IFRS accounting standards more and the benefits and status brought by the transition. Many options of participation and recording were provided to enable the participation of employees.

To summarize, despite many challenges and the complex of the transition, X had good motivation to transfer from US GAAP to IFRS and has arrived at multiple solutions to overcome those challenges. As a result, many parts are working properly like the understanding of IFRS 9, the investment side, and the implementation of IFRS 17. The progress of IFRS 17 was on track, while the second interviewee believed that they had to successfully transit to IFRS by the pre-specified time. The implementation of IFRS is believed to bring many benefits to the consolidated financial statements of X.

9 Conclusion

In conclusion, there are two current accounting standards implemented on the global scale: United States Generally Accepted Accounting Principles (US GAAP) and International Financial Reporting Standards (IFRS). The former is regulated by the Financial Accounting Standards Board (FASB) and is used mostly in the US, while the latter is governed by the International Financial Reporting Standards Foundation and implemented by over 140 countries around the world. Because the differences between these two accounting standards cause problems to both companies and investors, companies might wish to transfer from US GAAP to IFRS.

This research studied the transition from US GAAP to IFRS of a case insurance and reinsurance company. It did this by studying the phenomenon from three aspects:

- Motivation – why insurers and reinsurers decide to transfer from US GAAP to IFRS,
- Problem – the challenges insurers and reinsurers faced during the transfer, and
- Solution – the solutions came up by the insurers and reinsurers to encounter their problems.

The research shed light on the phenomenon by providing a theoretical framework and collecting and analysing empirical data. On one hand, the theoretical framework introduces the concepts of insurance and reinsurance and compares US GAAP and IFRS on a general basis. Moreover, as two most important accounting standards of the transition are IFRS 9 and IFRS 17, these accounting standards and their comparable topics from US GAAP will be discussed in the theoretical framework. On the other hand, the empirical data was collected through having three semi-structured interviews with three experts in one case company. The data was analysed using the Thematic Analysis approach.

In summary, insurance is a form of protection from risks, as insurance companies will pay policyholders claims when the risk specified in the insurance contract occurs. It existed thanks to two major factors: risk pooling and statistics/probability. There are many types of insurance, but the main types are property and casualty, life and health, and health insurance. On the other hand, reinsurance is a form of insurance for insurance companies to protect them from their insurance contracts with policyholders. The insurance industry is considered safe compared to other industries within the financial sector, while its size is big regarding the income and the employment data.

IFRS 17 and IFRS 9 are the two most important accounting standards in the transition. The scope of IFRS 17 features insurance and reinsurance contracts, while some important con-

cepts under IFRS 17 are the definition of an insurance contract, the separation of components, the recognition of insurance contracts, level of aggregation, and the measurement of profit and loss. IFRS 9 governs the financial instruments like financial assets, financial liabilities, and equity instruments. Its content includes the classification and measurement of financial assets and financial liabilities, impairment, and hedge accounting. Other concepts like Other Comprehensive Income (OCI) and Fair Value were introduced also in the explanation of IFRS 9 of this thesis.

Regarding empirical data, the interviews yielded rich information of the phenomenon which generated 18 codes and 10 themes. The data analysis gave the conclusions as below.

Table 5. Conclusion

Aspect	Conclusion
1. Motivation: why did the case company transit from US GAAP to IFRS?	<ul style="list-style-type: none"> • Benefits brought by the transition: financial reporting simplification, comparability to peer competitors, and unification of internal and external accounting standards • The global usage of IFRS
2. Problem: What challenges did the case company face during the transition?	<ul style="list-style-type: none"> • Understanding and applying new IFRS accounting standards • The integration of the IT system • Project management challenges • Human resources used to report under US GAAP • High costs of implementation
3. Solution: How did the case company overcome those challenges?	<ul style="list-style-type: none"> • Reducing the requirement level for the deliverables and accept a minimum viable product • Agile management • Outsourcing • Manually booking in the system • Internal training of employees

Critical Examination

If the complex of the phenomenon and the research process are considered, it can be concluded that the research objective was achieved. However, many limitations exist, while it is beneficial to conduct further research on this phenomenon.

Firstly, regarding the achievement of the research objective, the research aims to study the phenomenon from three aspects: motivation, problem, and solution. It achieved that aims by having three interviews with three experts working on the transition in one case company. As the interviewees are knowledgeable and have diverse backgrounds, the empirical data collected is rich, insightful, and diverse.

However, limitation exists because of many reasons. Firstly, the researcher might be biased during the research process because of his own cognition and perception. Moreover, mistakes might happen because the researcher was inexperienced in conducting research, even though he had conducted interviews before. Secondly, the resources used for this thesis was limited, mostly the human resources. Because there was only one researcher, mistakes might happen, or the research might not arrive at the best possible outcome. Finally, as this phenomenon is complicated, having only three interviews within one case company might not provide sufficient information on the phenomenon. Therefore, it would be valuable if further research is conducted on several different companies to generate more data and make insightful comparisons.

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Appendix 1: Explanation of codes and themes

Table 1. Codes and explanation of codes

	Aspect	Code	Code explanation	Unit of data
Interviewee 1	Motivation	MTV_SPL	Simplification of financial reporting	Under US GAAP, balance sheet and profit and loss statement were very structured, while it was less structured under IFRS
		MTV_CPR	Comparability to peer competitors	Another reason was to align more with competitors, as many insurers had either adopted IFRS or were moving towards it
		MTV_GLB	Global use of IFRS	IFRS was widely used by many companies in the present
	Problem	PRB_UDS	Understanding the accounting standards	X must decide where to go and how to interpret IFRS to bring the best fit to the company
		PRB_ITS	IT system	New modules for reporting and accounting needed to be setup
		PRB_CST	Costs of transferring from US GAAP to IFRS	The costs were much higher, but no details given
Interviewee 2	Motivation	MTV_CPR	Comparability to peer competitors	It was very important for X to be comparable to its peers
		MTV_LCL	Branches adopting IFRS for local requirements	Certain local entities of X were required to report under IFRS for their local regulations
		MTV_UNI	Unification of US GAAP and internal framework A	X decided to adopt IFRS which could replace both US GAAP and A
		MTV_SPL	Simplification of financial reporting	As US GAAP was rules-based but IFRS was principles-based, X could be more flexible with its financial reporting
	Problem	PRB_ITS	IT system	Building new subledgers, and the system did not function as well as expected

		PRB_UDS	Understanding the accounting standards	IFRS 17 was a new standard, it was difficult to know where and how to book in the real world
		PRB_AST	Technical aspect of the accounting standards	The first problem lied in understanding and applying new IFRS standards on portfolios of X; new models
		PRB_MNG	The management of projects and people	The problem was to manage many people and involving management on a big project which was a failure
		PRB_ADJ	Adjusting processes	After understanding the standards and knowing what to book with the subledgers, it was necessary to apply those understanding with the real situation of X
		PRB_CST	Costs of transferring from US GAAP to IFRS	X was overspending. The project was not deliverable, while many people were booking manually in the system
	Solution	SOL_MVP	Minimum viable product, reducing requirement level	To address the problem of the IT system, X started to decrease the level of requirement for the integration
		SOL_MNG	Solution of managing people	Status like who was working and who was leaving was provided to the management to change people in the project
		SOL_AGI	Agile management	Having meetings weekly and moved on to another goal if the pre-selected goals for that week was not achieved
		SOL_OUT	Outsourcing, using external advisors	Outsourcing was used especially for building the system
		SOL_MAN	Manually booking data into the system	When the system did not work properly, X would have people manually book these transactions into the system
Interviewee 3	Motivation	MTV_CPR	Comparability to peer competitors	The major reason for adopting IFRS from US

				GAAP was comparability
Problem	PRB_AST	Technical aspect of the accounting standards	Risk adjustment, interval of confidence, bundling insurance contracts from different businesses	
	PRB_HMR	Human resources, the people working at the reporting	As these people had been used to working with US GAAP, the huge difference between US GAAP and IFRS was a challenge for them	
	PRB_ITS	IT system	A different system needed to be used and built from the scratch	
Solution	SOL_EDU	Educational events	An educational event about IFRS and the transition that would happen for a whole working week	
	SOL_MVP	Minimum viable product, reducing requirement level	The simplification of the wants of the managers regarding the final product	

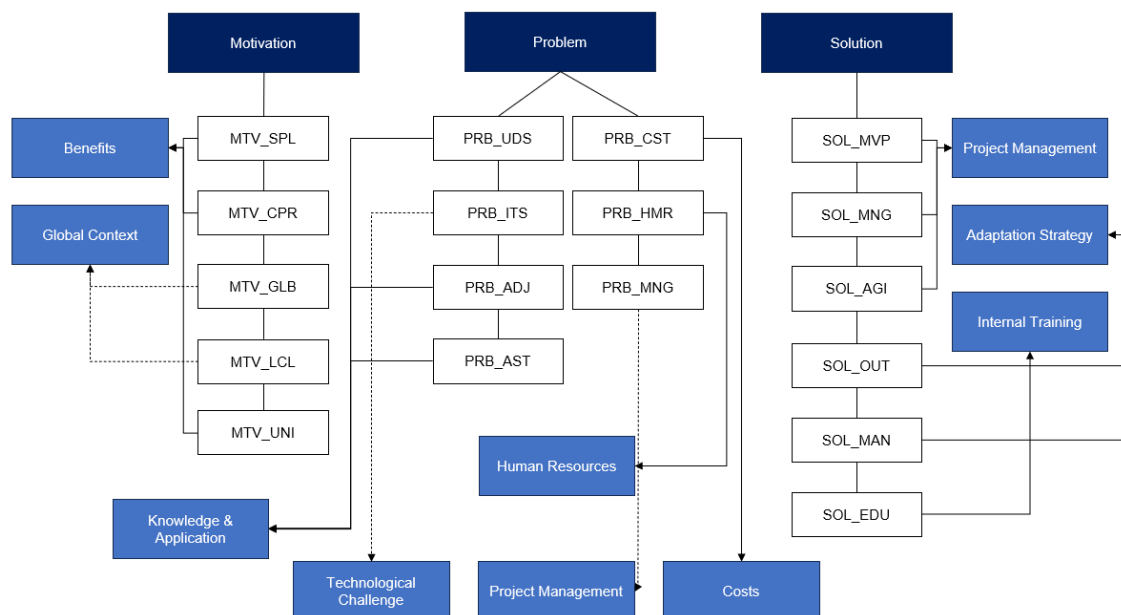


Figure 1. Grouping codes into themes

The figure above describes themes and the relationship between codes and themes. For the motivation aspect, the first theme is benefits which comprises of MTV_SPL, MTV_CPR, and MTV_UNI. This theme refers to the benefits of adopting IFRS from US GAAP: reporting

simplification, comparability with peer competitors, and the unification of two accounting standards used in the past. The second theme under motivation is Global Context which includes MTV_GLB and MTV_LCL. This theme refers to the global usage of IFRS that serves as a motivation for the transition.

The first theme of the problem aspect, Knowledge and Application, refers to the challenge of understanding accounting standards of IFRS and applying them into the real, specific situation of the case company. Three codes belong to this theme are PRB_UDS, PRB_ADJ, and PRB_AST. The second theme related to the problem of working with the IT system is Technological Challenge which includes only PRB_ITS. Because PRB_CST, PRB_HMR, and PRB_MNG describe a specific topic themselves, they stand alone form a theme for themselves. The themes created by them in the order listed above are Costs, Human Resources, and Project Management. The explanation of these themes is similar to that of the codes which can be found in the Table above.

Finally, the first theme belong to the solution aspect is Project Management which groups SOL_MVP, SOL_MNG, and SOL_AGI. These codes are related to project management methods that helped X overcome its challenges. Two codes SOL_OUT and SOL_MAN comprise the theme Adaptation Strategy which refers to problem-solving strategies adopted by X. Finally, the last theme is Internal Training which mentions the educational week held by X to provide useful information to its employees.