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Research paper

The Distinction between Debt and Equity

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“The role of equity as the cornerstone of business financing is such that we have to call a spade a spade, and debt is debt.”

Pascal Quiry and Yann Le Fur¹

Les propos exprimés n’engagent que leurs auteurs.

¹ Quiry, P., Le Fur, Y., (2018), Les errements des IFRS, *Lettre Vernimmen* 163, December. The quote was initially written in French as follows: “*Le rôle de pierre angulaire des capitaux propres dans le financement des entreprises est tel qu’il faut appeler un chat un chat, et des dettes des dettes.*”

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Foreword

Throughout the history of capitalism and organizations, the source of funds, whether it be the concept of debt or the concept of capital, has been the subject of questioning and theoretical thinking by legal experts and economists alike. The reason why the definition, design, valuation and application of these funds have been little debated until now in the accounting field is that the question of distinction did not arise per se because most systems of record were descriptive or prescriptive in nature. Convergences and/or divergences were revealed much later when, with the development of financial markets and the dominance of the liberal economy, financial innovations emerged, promoting an explanatory approach such as positive accounting theory and its corollary with the advent of international accounting standards.

Accounting standard setters (IASB, FASB, ANC, etc.) have a major responsibility to society in general and more specifically to all stakeholders in organizations. Through their choices and decisions regarding registration, the treatment of a financial instrument is not neutral in either its valuation or its accounting recognition. This financial instrument impacts not only the financial structure of companies but also the cost of capital, which is the fundamental determinant of shareholder value creation. At a time when there is increasing reference to the broadening of companies' corporate purpose (as in France with the PACTE Law), to the inclusion of non-financial criteria in the overall assessment of performance by various institutions such as EFRAG (with the concepts of social, societal and environmental responsibilities) and to the intervention of States/Governments as the single main stakeholder in the COVID-19 crisis, it seems more crucial than ever to have a clear understanding of what capital, equity, other equity and financial debt mean.

The vagueness created and maintained by hybrid instruments resulted in a situation where legal and fiscal concepts were constantly being abused, and this against a background of an increasingly economic and financial view of accounting. However, accounting is at the heart of these hybrid instruments because of the concept of an (often incomplete) contract and clauses of varying degrees of complexity that turn the contract into a tailor-made tool. The taxation aspect is not neutral in many respects: in certain cases, interest expenses generated by equity instruments such as subordinated debt can be made tax deductible. The complexity of the problem and the IASB's failure to take the legal aspects of these instruments into account can be clearly illustrated by examining hybrid securities at the international level.

According to Ross et al (2012),² the reasons that lead companies to issue hybrid securities are one of the most controversial, and as yet unresolved, topics in finance.

² Ross, S., Westerfield, R., Jaffe, J., (2012), *Corporate Finance*, McGraw Hill Education, 10th Edition, 1072 p.

While it is possible to provide new answers in terms of financing theories with complex securities that fulfil the objectives for framing the financial structure of specific entities (such as financial institutions and insurance companies subject to regulatory constraints), it is also possible to put forward a research question that has not really been addressed previously: are the financial structures of companies not simply a reflection of their own governance model? While the concept of Fair Value made popular by IFRS is often perceived as dogmatic in certain quarters, the concept of “control” in these standards has spread gradually and pervasively in recent years through IFRS 9, IFRS 10, IFRS 15, IFRS 16, etc., to the extent that it deserved to be explicitly stated within the conceptual framework. Given that the accounting recognition for a financial instrument depends on its classification, which itself depends on the issuer’s or investor’s intention, the concepts of equity, other equity and financial debt should have been defined as a priority and accurately. The major challenge for the IASB in the coming years will be to provide clear answers, particularly on the issues of strengthening companies’ equity positions following the 2020 global economic crisis.

Given the interest in the subject (the distinction between debt and equity), the lack of conceptual debate on hybrid instruments within the academic community and the large number of issues that can nevertheless be addressed, we wanted to provide a step-by-step response, in three stages, to our thinking on hybrid instruments, i.e. instruments that are neither debt nor equity:

- Stage 1: Observation: What are the practices? The case of France.
- Stage 2: Which hybrid instruments are covered? A review at the international level.
- Stage 3: Are hybrid instruments a governance issue? A theoretical proposal through the theory of incomplete contracts.

Project 1/Research Paper 1 – Financial Structure of French Listed Groups

The purpose of this first chapter is to review the practices of large companies listed on Euronext and members of the SBF 120 index in terms of their financing choices, in particular the use of hybrid financing. We considered it useful to carry out at an early stage a statistical study on the role and importance of the different sources of financing between 2010 and 2018. Understanding the financial structure of firms is certainly important given the multiple theoretical trends that have developed since the founding texts of Modigliani and Miller. However, the distinction between debt and equity has tended to blur with the emergence of hybrid financing. While economic, legal and financial explanations have been provided for these financial innovations, accounting record keeping continues to be an enigmatic issue at times between different accounting standards, such as between French GAAP and IFRS. It is particularly interesting to note that only 58% of the companies making up the SBF 120 index have used at least one hybrid instrument over the past decade and that the accounting issue concerns only around 25% of the companies in the index.

Project 2/Research Paper 2 – Hybrid Securities and Accounting Standards: An International Comparison

The second chapter reviews the legal, tax and accounting frameworks of five countries active in the hybrid securities market: Australia, Canada, France, the United Kingdom and the United States. Based on an assessment of the legal and tax classifications of hybrid securities, an international comparative study of accounting classification methods and their valuation was carried out. It was found that US GAAP offers the most detailed accounting framework for hybrid securities in the world. As a response to the Financial Instruments with Characteristics of Equity (FICE) project, we recommend that the IASB consider introducing a category of Other Equity or Mezzanine in the balance sheet (statement of financial position) under which hybrid financial instruments can be recorded, making them readily visible.

Paper presented at:

Proceedings of the 39th Congress of the Association Francophone de Comptabilité, Nantes, May 2018.

International Congress on Governance, Nice, June 2018.

Project 3/Research Paper 3 – The Distinction Between Debt and Equity: A Question of Governance?

The third chapter provides a conceptual response, based on the concept of governance, to the classification of financial instruments from the issuer's point of view, following the publication of the *Discussion Paper* entitled *Financial Instruments of Characteristics of Equity* (FICE DP) in June 2018.

Through a literature review and in light of advances in financial, organizational and behavioral theories, it proposes a revision of the distinction between debt and equity, which has until now been based on the "traditional" criteria of risk and liquidity. The question of control and governance issues, from both shareholder and creditor perspectives, is central to the analysis of this classification. Furthermore, the IASB can no longer ignore the examination of legal and institutional frameworks since these hybrid instruments involve complex clauses that raise questions not only about the incompleteness of the contracts but also about fluctuations in the cost of capital and therefore about value.

Paper presented at:

Proceedings of the 40th Congress of the Association Francophone de Comptabilité, Nantes, May 2019.

International Congress on Governance, Brussels, May 2019.

Financial Structure of French Listed Groups

2010 - 2018

Abstract

The purpose of this paper is to carry out a statistical study of the main French listed companies in order to understand their financial structures and changes over the period 2010-2018, but also the types of financing used. Two categories of hybrid securities are used: those belonging to the Perpetual Hybrid Bonds family and those belonging to the convertible bond family. While it is possible to observe differences in the financial structure of SBF 120 companies in terms of equity and short-term financial debt in particular, it should be noted that only 53% of entities used a hybrid instrument over the period. Leaving aside the banking and insurance sector because of regulatory constraints, the issue of classifying and accounting between IFRS and French GAAP really concerns less than 25% of the companies making up this index.

JEL Classification:

Equity – Financial debt – Hybrid instruments – IFRS – French

1. Introduction

“The difference between debt and equity depends on whether or not the issuer is obliged to make a cash payment to the other party. Being able to make such a decision regarding cash payment is the crucial distinction between the two items”, (Klépierre, Registration Document 2018, p.71). Although the IASB, through the adoption of IAS 32, has retained this distinction, the issue surrounding this classification is not new and has been raised since financing capital companies began in the 18th and 19th centuries. This distinction between an equity instrument and a debt instrument was made from the outset in terms of the risk incurred and prioritization of the cash flows generated.

With its Discussion Paper/2018/1 entitled Financial Instruments of Characteristics of Equity (FICE DP), released in June 2018, the international accounting standards setter aims to improve the classification of complex financial instruments (i.e. those with characteristics of both types of financing) in light of the increasing global issuance of hybrid securities over the past decade. Accordingly, in order to determine which financial instruments are most frequently used, a knowledge of the financial structure and types of financing of major French companies is required.

The purpose of this paper is to conduct a statistical study over nine years (2010-2018) of the top 120 French companies listed on Euronext. While long-term and short-term financial debt generally increased over the period, it is interesting to note that 42% of companies used only simple instruments, i.e. either issues of new shares or “standard” bank or bond debt. As a result, the classification of hybrid debt-equity instruments is questioned in only 53% of cases and is actually concentrated in only around 25% of French companies, which are often the largest in terms of size.

Two families of hybrid securities have emerged for French entities: securities belonging to equity and products belonging to the bond family accounted for either as financial debt or as financial debt with a portion in equity. These are:

- either perpetual subordinated notes which are initially recorded as equity;
- or bonds which, depending on their characteristics and specific clauses (e.g. step-up clause), are converted and/or recorded as equity or only partially recorded as equity. Given the number of securities falling into this category, a single family – convertible bonds that combine various instruments including OCA, OCEANE, ORDINANE, OE and ORNAE bonds, etc.) – is highlighted in this study, as is often the **case in the academic literature**.

After explaining the methodology of the descriptive statistical study of SBF 120 companies between 2010 and 2018, the second part of the report examines the hybrid securities used by the main French companies (definitions, types, size and accounting implications). A summary report provides the framework for the chapters that follow.

2. Methodology for the Statistical Study

2.1. Data Used and Samples

The data used refer to listed companies that were members of the SBF 120 index at the beginning of 2019. The data cover the nine-year period from 2010 to 2018. We have not reconstructed the indices for each year by weighting them with companies joining and leaving the index. We have assumed that the companies making up the index in 2019 were members of it over the entire nine years. All the data were extracted from the Infront Analytics and Bloomberg databases and in particular from the companies' registration documents filed with the AMF. Companies in the banking and insurance sector were removed due to a different balance sheet structure, namely six financial institutions (Amundi, BNP-Paribas, Crédit Agricole, Natixis, Rothschild and Société Générale) and five insurance or related companies (ALD, AXA, CNP Assurances Coface and Scor). A total of 11 companies were therefore removed. They are presented separately in section 4 of this chapter.

Following this initial screening, 109 companies remained in the SBF 120 index ($120-11=109$). It should be noted that seven companies from the real estate sector were retained in this sample of 109 companies, namely Covivio, Gecina, Icade, Klépierre, Mercialys, Nexity and Unibail Rodamco Westfield (URW). We then split the companies in the SBF 120 index into two sub-samples:

- the first sub-sample included the companies that are members of the CAC 40 index;
- the second sub-sample included the other 80 companies in an index that we referred to as NEXT 80.

This choice was justified by the size of a few very large multinationals (Total, Engie, Sanofi, etc.) compared with smaller companies that fall into the category of intermediate-sized enterprises and yet are members of the same index (Sopra, Tarkett, Téléperformance, etc.).

The CAC 40 index consisted of 36 entities over the period. We had already removed the four major financial institutions that have always been members of this index: AXA, BNP-Paribas, Crédit Agricole and Société Générale. Note that Unibail Rodamco Westfield (URW) is the only real estate company that is a member of the CAC 40 index.

We then removed the 36 companies in the CAC 40, leaving the remaining 73 companies ($109-36=73$) to make up our "NEXT 80" index. Of these 73 companies, two were not operating as a going concern over the period: Maison du Monde and TechniPFMC. There were ultimately 71 companies left as members of the NEXT 80 index (SBF 120 excluding the CAC 40 index).

	CAC 40 Index	NEXT 80 Index
<i>Period</i>	2010-2018	2010-2018
<i>Number of entities selected</i>	36	71

As a result, the number of entities in the ICC (Industrial and Commercial Companies) category was 107.

2.2. Variables Studied

By exploring the data available in most databases, information on the income statement, the balance sheet, a summarized form of the cash flow statement and other miscellaneous financial information could be obtained.

When studying the liabilities side of the balance sheet, two sections were highlighted: the “Equity” section and the “Liabilities” section. In the “Equity” section, the Share Capital, Reserves, Other Equity Items, Share Buybacks and Minority Interests were extracted. In the “Liabilities” section, a distinction can be made between current and non-current liabilities. We were able to obtain:

- Long-term Debt
- Short-term Debt
- Long-term Financial Debt
- Convertible Bonds
- Short-term Portion of Long-term Financial Debt
- Short-term Financial Debt
- Net Financial Debt
- Cash Debt
- Other Long-term Debt (Deferred Taxes, Provisions, etc.).

In IFRS balance sheets (Statements of Financial Position), there are no Quasi-Equity or Other Equity headings. Therefore, most hybrid financial instruments are in fact subsumed under the various other headings: Reserves, Other Equity Items, Long-term Financial Debt, Convertible Bonds, etc. The presentation has not been standardized.

2.3. Statistics and Results

2.3.1 The Equity/Debt Trade-off

Based on the average and median of the 36 industrial and service groups making up the CAC 40 index from 2010 to 2018 (see Tables 1 and 1A), the general trend is

towards increasing equity in preference to overall debt. This phenomenon is the consequence of these groups' rising global profits, while dividend payouts and share buybacks have only accelerated and grown at the same time. On average over the period, equity represented 36.13% of the balance sheet total while total liabilities amounted to 63.87%. If we look at the median of the CAC 40 groups, these ratios are 35.71% and 64.29%.

The company with the lowest equity over the period under review was Air France-KLM with €2.8 billion, and the company with the highest equity was Total with an average of €82 billion, followed by Sanofi with €57 billion. Between 2010 and 2018, the average equity capital of the 36 CAC 40 groups amounted to €17 billion.

Table 1 – Distinction Equity/Debt (average) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Equity	37.95%	37.69%	36.19%	36.10%	36.22%	36.34%	34.62%	34.48%	35.60%
Debt	62.05%	62.31%	63.81%	63.90%	63.78%	63.66%	65.38%	65.52%	64.40%

Table 1A – Distinction Equity /Debt (median) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Equity	36.14%	37.65%	35.50%	35.30%	34.32%	34.11%	35.76%	34.48%	38.15%
Debt	63.86%	62.35%	64.50%	64.70%	65.68%	65.89%	64.24%	65.52%	61.85%

There are significant disparities among the SBF 120 groups that do not belong to the CAC 40 index. Among multinationals such as EDF or Valéo and groups such as Virbac or Soitec, there are considerable differences in data. particularly when it comes to the concepts of revenue, equity and liabilities. On the average and at the median (see Tables 2 and 2A), the companies all strengthened their equity over the period, even though those in the CAC 40 remained around three points more capitalized than those in the NEXT 80 index.

Table 2 – Distinction Equity/Debt (mean) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Equity	31.59%	31.33%	28.77%	27.00%	26.90%	27.15%	22.23%	24.31%	24.54%
Debt	68.41%	68.67%	71.23%	73.00%	73.10%	72.85%	77.77%	75.69%	75.46%

Table 2A – Distinction Equity /Debt (median) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Equity	33.45%	32.00%	31.93%	33.68%	35.15%	36.12%	33.59%	38.57%	38.82%
Debt	66.55%	68.00%	68.07%	66.32%	64.85%	63.88%	66.41%	61.43%	61.18%

Share capital in value and as a percentage of equity (see Tables 3 and 3A) automatically decreased on average over the period. due to the increase in reserves, the fall in interest rates that led to a preference for debt over capital increases and share buybacks to cancel them out. This trend based on the average differs slightly from that based on the median, which reinforces the “huge profits” and “share buybacks” argument of the major leading companies (Total, Sanofi, Engie. etc.).

Table 3 – Means and medians of share capital (M€) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	1612	1590	1607	1865	1886	1850	1821	1791	1796
Median	812	822	857	854	784	733	754	751	748

Table 3A – Share capital as a percentage of total shareholders' equity – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	7.98%	8.63%	9.19%	11.21%	11.55%	11.54%	11.39%	11.27%	11.58%
Median	5.71%	6.33%	7.15%	7.66%	7.59%	7.19%	7.37%	7.63%	7.47%

The share capital of a group is in fact the share capital of the parent or consolidating company. There are therefore some fairly significant differences on this line, which reflect the different strategies of each group in terms of external growth or organic growth. Some groups have low levels of share capital, for example Essilor (€43 million), Hermès (€54 million) and Safran (€83 million). By contrast, Orange (€10.6 billion), Vivendi (€7.2 billion) and Arcelor-Mittal (€6.6 billion) are the three groups with the highest levels of share capital. In 2018, share capital represented less than 8% of equity on average and less than 6% if we consider the median amount.

The amount and percentage of share capital of the NEXT 80 index groups (see Tables 4 and 4A) are significantly lower than those of the top 40 companies. The parent companies of the NEXT 80 index are therefore smaller, indicating that their groups are also smaller. There is a significant decrease between 2010 and 2018 in share capital as a proportion of overall equity, explained primarily by macroeconomic factors (including a marked improvement in the economic situation, which increased reserves, lower interest rates and the choice of debt financing in preference to capital increases).

Table 4 – Means and medians of share capital (M€) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	278	265	270	267	250	244	227	220	255
Median	121	105	105	103	97	93	87	84	84

Table 4A – Share capital as a percentage of total shareholders' equity – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	6.84%	6.91%	8.26%	8.95%	8.98%	9.12%	10.90%	9.98%	11.15%
Median	5.55%	5.46%	5.86%	6.22%	6.07%	6.34%	6.66%	5.70%	5.47%

An analysis of equity requires an analysis from the outset of the importance of minority shareholders. While under IFRS, minority shareholders are recorded in equity because they do not meet the definition of a liability, they should nevertheless be excluded when assessing equity at the group level. In general, there was an average and median increase in the proportion of minority shareholders in the equity of CAC 40 multinationals between 2010 and 2018 (see Table 5). There are several possible explanations for this, including the worldwide resurgence in merger activity, the acquisition of companies that are not fully controlled and the introduction of IFRS 3R (revaluation of minority interests in business combinations).

Table 5 – Minority interests into equity – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	4.57%	4.76%	4.85%	4.82%	4.90%	4.82%	1.69%	1.59%	1.09%
Median	1.95%	2.30%	2.07%	2.52%	2.85%	1.94%	0.00%	0.00%	0.00%

The three companies that on average had the highest level of minority shareholders in their equity are Engie (€3.8 billion), URW (€2.1 billion) and ArcelorMittal (€2 billion). By contrast, some groups had very few minority shareholders, including L'Oréal, Hermès and Airbus.

Over the period, there was an increase in the average and median proportion of minority shareholders in the equity of companies in the NEXT 80 index (Table 5A), mainly from 2013 onwards. In addition to the factors mentioned for the CAC 40 multinationals, it should be noted that three companies “skew” the average significantly more than the median: Groupe Casino, Covivio (formerly Foncière des Régions) and EDF all entered and exited the NEXT 80 index with a fairly high proportion of minority shareholders.

Table 5A – Minority interests into equity – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	17.34%	18.15%	11.69%	11.13%	11.50%	11.05%	0.59%	0.40%	0.23%
Median	1.51%	1.65%	1.17%	0.94%	1.11%	0.55%	0.00%	0.00%	0.00%

The cumulative amount of share buybacks per year for CAC 40 companies hovers around the €14 billion mark (see Table 6). Some companies did not buy back any shares during the period (Accor, Legrand, Michelin, Orange and URW). However, Total, Sanofi, Danone and Vinci were the four CAC 40 groups that on average had the highest amount of share buybacks in their equity over the period under review (€2.6 billion, €1.8 billion, €1.7 billion and €1.6 billion respectively).

Table 6 – Cumulative share buyback amounts (€ billion) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Share buyback	-14.58	-15.65	-12.78	-16.69	-14.80	-14.86	-14.68	-13.11	-12.13

Share buybacks of NEXT 80 groups are less prevalent than for CAC 40 companies (see Table 6A), and their amounts in volume terms are lower. While many companies did not buy back any shares over the period (including JC Decaux, Korian, SPIE, Sartorius, Getlink and Gécina), three companies (Klépierre, Solvay and Wendel) bought back shares at a cost to each of them of more than €1.2 billion.

Table 6A – Cumulative share buyback amounts (€ billion) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Share buyback	-3.11	-2.48	-1.68	-1.71	-1.21	-1.04	-1.01	-1.00	-0.81

2.3.2 Analysis of the Groups' Main Asset Items

Two key balance sheet asset items should be considered when examining the equity/debt trade-off: firstly, the increasing proportion of goodwill and intangible assets, and secondly, the amount of cash (and cash equivalents) and marketable securities. Table 7 and 7A show respectively the average and median of goodwill and intangible assets in euros and as a percentage of the balance sheet total.

Table 7 – Weight of goodwill and intangible assets (mean) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
€ Billion	14.98	12.69	12.23	11.71	11.36	11.27	12.13	12.37	11.41
Percentage	28.14 %	25.96 %	25.32 %	25.41 %	25.21 %	25.56 %	26.27 %	26.83 %	26.20 %

Table 7A – Weight of goodwill and intangible assets (median) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
€ Billion	10.04	9.49	8.82	8.12	8.03	7.43	7.42	7.17	6.71
Percentage	25.40 %	26.69 %	25.05 %	24.44 %	25.18 %	23.88 %	25.15 %	25.75 %	24.85 %

The amount of intangible assets continued to increase over the decade, rising on average from €11.4 billion in 2010 to almost €15 billion in 2018 and representing on average 28% of the balance sheet total in 2018 (2% more than in 2010). This observation is beyond dispute. This reflects the race for size among certain groups (e.g. Danone's acquisition of WhiteWave in 2017, which increased its goodwill to more than €18 billion and its intangible assets to 55% of its balance sheet total) and the low level of impairment tests carried out in an environment of fairly dynamic global economic growth. The three groups with the highest levels of goodwill and intangible assets were unsurprisingly Sanofi (€55 billion), Orange (€39.5 billion) and Vinci (€32.8 billion). By contrast, those with the lowest amounts were Hermès (€153 million), URW (€1 billion) and Michelin (€1.5 billion).

Similarly, the amounts of goodwill and intangible assets of the groups in the NEXT 80 index (see Tables 8 and 8A) are not comparable with those of CAC 40 giants such as Sanofi. Apart from the major companies in the NEXT 80 index that had been members of the CAC 40 at some point in their past (EDF, Casino, Alstom, Atos, Lagardère and Solvay), two companies (Rexel and Wendel) reported an average annual amount of around €5 billion over the period.

Table 8 – Weight of goodwill and intangible assets (mean) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
€ Billion	3.025	2.723	2.067	1.920	1.844	1.675	1.628	1.451	1.404
Percentage	23.53%	22.26%	18.22%	17.39%	17.85%	17.01%	17.36%	16.03%	15.07%

While the amounts of goodwill and intangible assets were much more disparate between the companies in the SBF 120 index at the beginning of 2010, there was a convergence in the percentage of the balance sheet total from 2017/2018 onwards.

Table 8A – Weight of goodwill and intangible assets (median) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
€ Billion	1.832	1.319	1.217	0.986	0.897	0.706	0.734	0.681	0.647
Percentage	28.57%	22.62%	23.19%	20.71%	19.10%	17.05%	17.74%	17.36%	15.92%

Cash and cash equivalents (Table 9) are estimated at an average of €4.7 billion in 2018 (representing 8.83% of the balance sheet total), with a minimum of €370 million for URW and a maximum of €24.4 billion for Total. If we add the amount of short-term investment securities (part of the risky marketable securities with a maturity of more than three months), this amount increases to more than €5 billion in 2018, representing 9.44% of the balance sheet total.

Table 9 – Average change in cash and cash equivalents – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Cash	8.83%	9.26%	8.62%	8.45%	8.13%	7.72%	7.94%	6.91%	7.58%
Cash and Equivalents	9.44%	10.34%	10.53%	10.10%	9.67%	9.42%	9.78%	9.03%	10.02%

The levels of cash and cash equivalents for companies in the NEXT 80 index (see Table 9A), both in value and percentage terms, are significantly lower than those of the CAC 40 companies. While the amount of cash improves by an average of 2.5% between 2010 and 2018, total cash in the broad sense is much more erratic over the same period.

Table 9A – Average change in cash and cash equivalents – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Cash	6.84%	5.68%	5.60%	5.07%	5.29%	5.35%	4.80%	4.59%	4.49%
Cash and Equivalents	7.07%	6.63%	10.85%	10.08%	10.0%	9.37%	8.75%	9.05%	9.07%

2.3.3 Structure of Total Debt

The total debt of the CAC 40 groups (see Table 10) rose sharply between 2010 and 2018, especially if we consider the median value (+€9 billion in nine years). The group with the highest average total debt over the period under review was Engie with €120 billion. The group with the lowest total debt over the period was Hermès with €1.3 billion.

Table 10 – Weight of total debt (€ billion) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	33.04	30.47	30.81	29.45	28.75	28.08	30.19	30.22	28.05
Median	25.17	21.50	21.77	20.43	19.75	19.71	18.39	18.69	16.24

The companies' liabilities excluding equity can be divided into three categories (see Table 10A and Table 10B). The first category relates to current liabilities under IFRS (liabilities due within one year) and includes both operating liabilities and the portion of financial debt due within one year. On average over the period under review, this category increased from 49.2% in 2010 to 53.57% in 2018. This increase is due to an average increase in operating liabilities driven by a stronger business growth between these two dates and an average maturity of long-term financial debt that tended to increase due to the continuous fall in interest rates. The second category relates to long-term financial debt. These are bank, bond and hybrid debts. They were stable from 2015 and represent on average 26% of non-current and current liabilities on the groups' balance sheets. The last category relates to the "Other" heading and comprises other types of liabilities such as various provisions and deferred taxes. This amount remained more or less stable over the period, fluctuating between 20% and 23%.

Table 10A – Total debt structure (€ billion, average) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Long term financial debt	8.32	7.74	7.91	7.46	7.57	7.45	8.17	8.30	7.59
Short term debt	17.71	16.29	15.84	15.10	14.26	14.41	14.90	14.78	13.80
Others	7.01	6.43	7.05	6.89	6.91	6.20	7.11	7.13	6.65

With Others: provisions for retirement, differed taxes, other commitments.

Table 10B – Total debt structure (mean in %) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Long term financial debt	26.27%	26.09%	26.40%	26.07%	27.19%	27.44%	27.90%	28.34%	27.94%
Short term debt	53.57%	53.47%	51.42%	51.27%	49.60%	51.34%	49.37%	48.93%	49.20%
Others	20.16%	20.44%	22.18%	22.67%	23.21%	21.22%	22.73%	22.73%	22.86%

With Others: provisions for retirement, differed taxes, other commitments.

The average total outstanding debt for companies in the NEXT 80 index (see Table 11) was well below those in the CAC 40 index (median of €4.34 billion versus a median of €25.17 billion in 2018). The group with the highest average annual total debt over the period was unsurprisingly EDF with €224 billion. Some groups have very low levels of debt, such as BIC, Soitec or Trigano, or virtually no debt, such as Genfit (€58 million on average).

Tableau 11 – Weight of total debt (€ billion) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Mean	8,80	8,40	8,08	8,05	7,55	7,17	7,29	6,85	7,03
Median	4,34	4,10	3,81	3,27	2,95	2,60	2,58	2,33	2,42

The debt structure analysis reveals a significant difference among the companies in the SBF 120 index, differentiating those in the CAC 40 index from the others. The finding is that companies that were members of the CAC 40 index had much more short-term debt than long-term debt, whereas this debt was more evenly split for companies in the NEXT 80 index (Tables 11A and 11B). On average over the period, these NEXT 80 companies had one third long-term debt, one third short-term debt and

one third other liabilities. Among the factors explaining this difference, we could cite the following:

- increased use of securitization transactions by CAC 40 companies. which are reconsolidated for accounting purposes as short-term debt (as in the case of Peugeot);
- a rescheduling of long-term debt as interest rates fall, which makes arbitrage (debt swaps) more frequent;
- increased use of derivatives accounted for as short-term debt;
- an increased number of family-owned companies in the NEXT 80 index, which often make less use of debt than managerial companies.

Tableau 11A – Total debt structure (€ billions, average) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Long term financial debt	2,850	2,665	2,557	2,536	2,233	2,103	2,152	2,058	2,071
Short term debt	3,407	3,251	3,070	2,889	2,887	2,784	2,710	2,563	2,705
Others	2,542	2,485	2,457	2,634	2,435	2,287	2,433	2,234	2,258

With Others: provisions for retirement, differed taxes, other commitments.

Tableau 11B – Total debt structure (mean in %) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Dettes financières LT	32,39%	31,72%	31,63%	31,47%	29,56%	29,31%	29,50%	30,02%	29,45%
Dettes CT	38,72%	38,69%	37,98%	35,84%	38,21%	38,80%	37,15%	37,39%	38,45%
Autres	28,89%	29,58%	30,39%	32,69%	32,23%	31,89%	33,35%	32,59%	32,10%

With Others: provisions for retirement, differed taxes, other commitments.

2.3.4 Structure of Financial Debt

The average amount of total financial debt (see Table 12) increased between 2010 and 2018 (from €10.8 billion to €12.23 billion). While the distribution between long-term and short-term financial debt changed only slightly, with an average of 69% for long-term debt and 31% for short-term debt, the nature of short-term financial debt changed significantly.

Table 12 – Structure of the financial debt (€ billion) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total financial debt	12.23	11.20	11.42	10.80	10.83	10.91	11.85	11.82	10.88
Long term financial debt	8.32	7.74	7.91	7.46	7.57	7.45	8.17	8.30	7.59
Short term financial debt	3.90	3.46	3.50	3.33	3.25	3.45	3.68	3.51	3.28
<i>Including current portion of long-term debt</i>	1.30	1.28	1.34	1.46	1.50	1.73	1.89	1.84	1.77
<i>Including Cash debt</i>	2.59	2.17	2.16	1.87	1.75	1.72	1.79	1.67	1.51

There was a very sharp decline in the proportion of long-term financial debts due within one year (from 54.04% to 33.50% of total short-term financial debts), while other types of short-term financial debts, such as credit lines drawn, have increased (see Table 12A). The explanations for this are the low interest rates that lead to the availability of “free” money and the changes on the money markets (NEU CP-type products, acceleration of securitization. etc.). The burden of these short-term financial debts increased by 20% on average over the period, rising from an average of €1.51 billion in 2010 to €2.59 billion in 2018.

Table 12A – Weight of financial liabilities in the balance sheet – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Long term financial debt	68.08%	69.10%	69.28%	69.11%	69.95%	68.32%	68.89%	70.23%	69.80%
Short term financial debt	31.92%	30.90%	30.72%	30.89%	30.05%	31.68%	31.11%	29.77%	30.20%
<i>Including current portion of long-term debt</i>	33.50%	37.26%	38.34%	43.95%	46.23%	50.06%	51.46%	52.37%	54.04%
<i>Including Cash debt</i>	66.50%	62.74%	61.66%	56.05%	53.77%	49.94%	48.54%	47.63%	45.96%

The net financial debt of CAC 40 companies (see Table 12B) increased on average between 2010 (€6.51 billion) and 2018 (€7.20 billion), despite the increase in cash and cash equivalents. Nevertheless, this average conceals very significant disparities. While some groups (Engie, Orange, Total, etc.) have high levels of net financial debt due to the nature of their businesses and/or their shareholder structure, by contrast, others have negative net financial debt (i.e. they have more cash than financial debt),

reflecting the high profit margins in their businesses. Examples include Hermès and L'Oréal, but also STM, Thalès and Dassault Systèmes.

Table 12B – Gross and net financial debt (€ billion) – CAC 40

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Gross financial debt	12.23	11.20	11.42	10.80	10.83	10.91	11.85	11.82	10.88
Net financial debt	7.20	6.14	6.33	6.14	6.47	6.76	7.34	7.65	6.51

Net financial debt = Gross financial debt – Cash and cash equivalents

The financial structures of companies in the NEXT 80 index follow the same basic trends as those of CAC companies, namely an upward trend in financial debt (up 3.62% over the period). especially long-term financial debt (see Table 13).

Table 13 – Structure of financial debt (M€) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total financial debt	3618	3345	3237	3175	2885	2763	2842	2666	2655
Long term financial debt	2850	2665	2557	2536	2233	2103	2152	2058	2071
Short term financial debt	768	680	681	639	652	660	690	609	584
<i>Including current portion of long-term debt</i>	454	418	488	412	353	413	427	351	333
<i>Including Cash debt</i>	314	261	193	227	299	248	263	258	251

Because of the continued decline in interest rates and the development of the corporate debt market, a higher average amount of financial debt, both long-term and short-term, was noted for the NEXT 80 index companies. This increase is regular and linear over the period. hovering around 78% for long-term debt and 22% for short-term debt (see Table 13A).

Table 13A – Weight of financial liabilities in the balance sheet – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Long term financial debt	78.77%	79.68%	78.97%	79.88%	77.39%	76.11%	75.72%	77.17%	78.02%
Short term financial debt	21.23%	20.32%	21.03%	20.12%	22.61%	23.89%	24.28%	22.83%	21.98%
<i>Including current portion of long-term debt</i>	59.08%	61.54%	71.66%	64.46%	54.15%	62.50%	61.90%	57.69%	57.02%
<i>Including Cash debt</i>	40.92%	38.46%	28.34%	35.54%	45.85%	37.50%	38.10%	42.31%	42.98%

However, while gross financial debt increased by 36.6% over the period, net financial debt increased by 44%. This suggests that the cash position of the companies in the NEXT 80 index was replenished between 2010 and 2018.

Table 13B – Gross and net financial debt (€ billion) – NEXT 80

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Gross financial debt	3.62	3.34	3.24	3.17	2.88	2.76	2.84	2.66	2.65
Net financial debt	2.62	2.43	1.95	2.03	1.84	1.84	2.02	1.85	1.81

Net financial debt = Gross financial debt – Cash and cash equivalents

Based on this initial statistical analysis of the companies in the SBF 120 index the following points can be made:

- The financial structure of the groups has not evolved in the same way. While the amount of equity is increasing for the CAC 40 companies, it is decreasing for the NEXT 80 index companies, which show a preference for debt. On average, the NEXT 80 companies had a higher long-term debt burden.
- Short-term financial debt was much higher for CAC 40 companies than for those in the NEXT 80 index.
- While the proportion of long-term financial debt repaid in the short term has decreased for CAC 40 companies, the opposite was true for the companies in the NEXT 80 index.
- *The level of sophistication with regard to financial debt was higher for the CAC 40 companies than for the NEXT 80 companies, reflecting the systematic use of more complex financial products.*

There appears to be a need for further analysis on the use of hybrid products, which mix the attributes of debt products with those of equity products.

3. Hybrid Securities: Overview for the SBF 120 Companies

Of the 107 groups in our sample, 50 groups did not use any hybrid securities over the period. The other 57 groups were financed using at least one of them.

Without Hybrid Securities	With Hybrid Securities
50 firms	57 firms
46.73%	53.27%

The use of hybrid securities therefore remains marginal for SBF 120 companies when compared with traditional financing instruments. Our study did not focus on short-term financial debt. Consequently, any bank overdrafts, commercial paper issues, Negotiable European Commercial Paper (NEU CP) issues or similar were not captured.

3.1. Standard Debt versus Hybrid Debt

Two sources of financing predominate among the SBF 120 companies: bank debt and bond debt. In terms of accounting, neither poses a problem: they have a maturity date and are repaid in cash. According to IAS 32, they are recorded at amortized cost using the effective interest rate (EIR) method and are classified in the balance sheet according to maturity (current and non-current portion of financial debts).

The items relating to “non-standard bank debt in euros” mentioned in the notes to the consolidated financial statements are debts in foreign currencies, multi-currency credit lines, debts with the European Investment Bank (EIB), syndicated loans, etc.

Fixed-rate bonds continue to dominate (see outstanding debt at Total, Vivendi, Véolia, etc.). Less commonly, some are at variable rates indexed to Libor, Euribor or Tibor or to other specific characteristics (e.g. Eutelsat with bullet loans and ONDD export loans). Depending on the quality of the issuer, the bonds are rated and classified as Investment Grade or High Yield by the rating agencies.

Many loans refer to private placements (see Sodexo, Rémi Cointreau, etc.). Similarly, 15 groups were identified that used *Schuldscheine* during the period under review (Bureau Véritas, Edenred, Elis, Eramet, Korian, Orpéa, Plastic Omnium, Quadiant, Safran, Sanofi, SEB, SES Global, Tarkett, Ubisoft and Virbac). As a reminder, a *Schuldschein* is an alternative financing instrument under German law that shares the characteristics of a bond. It is similar to a loan granted by private investors who do not necessarily have access to the financial market. *Schuldschein* issues range from €100

to €200 million and have maturities of between two and 10 years. They are slightly more expensive than market rates due to a lack of liquidity.

One financing instrument that is quite popular among the companies studied is the Euro Medium Term Note (EMTN), which is part of the Euro PP market. EMTNs are considered to be bonds traded over the counter, with maturities (normally between one and five years), guarantee rates and variable amounts. They are used primarily for their flexibility and low issue costs. The following 23 groups were identified as having been partially financed by EMTNs: Airbus, Arkema, Carrefour, CGG, Danone, EDF, Europ M GRP, Kéring, LVMH, Orange, Renault, Safran, Saint Gobain, Sanofi, Schneider, SEB, SES Global, Solvay, URW, Valéo, Véolia, Vinci and Vivendi. Similarly, six groups reported using Negotiable European Medium Term Notes (NEU MTNs): Atos, Eiffage, Iliad, Lagardère, SEB and Sopra Steria.

Lastly, some groups reported using bond debt – mainly fixed-rate debt – named according to characteristics or purpose. These debts do not pose a problem for accounting records. Examples are:

- Green bonds: Covivio, EDF, Engie, etc.
- Social bonds: Danone, etc.
- Climate bonds: Schneider, etc.
- Samurai bonds: Renault
- Panda bonds: Véolia
- Yankee bonds: Legrand

3.2. Hybrid Securities on the Balance Sheets of the SBF 120 Companies

Hybrid or intermediate products that combine debt and equity instruments were examined in a further analysis.³ It is important to remember that classifying instruments as equity or debt depends on a specific analysis of the characteristics of each instrument issued by the issuer. An instrument is considered to be an equity instrument if it does not include a contractual obligation to pay out cash or another financial asset. In particular, an instrument that is repayable at the issuer's initiative and whose remuneration is dependent on the payment of a dividend is classified as equity. By analyzing the SBF 120 companies' registration documents, the specific names of the hybrid securities used and referred to in the notes were identified. Table 14 summarizes the list of hybrid securities and the companies concerned.

³ Preference shares (performance shares, shares with double voting rights, etc.) that fall into the hybrid securities category are not considered in this study because they do not pose any accounting problems. They are treated as ordinary shares. The same is true for ADRs (American Depositary Receipts) issued by companies listed in the United States such as Sanofi, for ADSs (American Depositary Shares) such as DBV Techn, or for FDRs (Fiduciary Depositary Receipts) issued by SES Global.

Table 14 – Companies with Hybrid Securities

Securities	Issuers
TSDI (Undated subordinated securities)	Accor – Air France-KLM – ArcelorMittal - Arkéma – Danone – Korian – Orange – Total – URW - Vinci
TSSDI (Undated deeply subordinated securities)	Casino – EDF – Engie – Fnac Darty – Solvay - Véolia
TDIRA (perpetual bonds redeemable for shares)	Orange
TP (Redeemable shares)	Engie - Peugeot – Renault – Saint Gobain – Sanofi
BSA (warrants)	CGG – DBV Techno – Genfit – Peugeot – Publicis - Ubisoft
Put on minority	ADP – Alstom – Casino – Danone – EssilorLux – Ingénico – JCDecaux – Kéring – Nexity – Sopra Steria – Total – Valéo – Vicat – Vivendi – Wendel
Perpetual bonds	Saint Gobain
Subordinated loan	Europ M GRP – Michelin
ORA (Bonds redeemable in shares)	Alstom
OCA (Convertible bonds in shares)	Aperam – ArcelorMittal – Iliad - STMicroelectronics – Valéo – Vallourec
OCRN (Cash-settled convertible bonds)	Carrefour – Michelin
OE (Exchangeable bonds)	Orange – Wendel
OBSA (Bonds with warrants)	Publicis – Vivendi
ORANE (Redeemable bonds in new or existing shares)	Publicis
ORDINANE (Undated bonds convertible into new shares and/or exchangeable for existing shares)	Korian – Quadiant
ORDINAN (Perpetual bonds with an option to repay in cash and/or existing shares)	Eramet
OBSAAR (Bonds with redeemable warrants to subscribe for new or existing shares)	Orpéa
OCEANE (Convertible bonds into and/or exchangeable for new or existing shares)	Air France-KLM – Airbus – Capgémmini – CGG – Elis – Engie – Faurecia – Genfit – Ingénico – Korian – Michelin – Nexans – Nexity – Orpéa – Peugeot – Publicis – Rémy Cointreau – Safran – Soitec – Ubisoft – Véolia
ORNANE (bonds with a cash redemption option and/or convertible into new or existing shares)	Air France-KLM – Cap Gémini – Covivio – Nexity – Orpéa – URW
ORNAE (bonds with an option to repay in cash and/or existing shares)	Seb

We note that there is no longer any specific mention of securities such as oil certificates, investment certificates, etc. in the companies' registration documents.

Several observations and statistical findings are worth noting.

Observation 1. In financing, the proportion of subordinated perpetual bonds, deeply subordinated perpetual bonds, perpetual securities redeemable in the form of shares, and participating securities remains fairly low compared with the proportion of equity and long-term financial debt. At 31 December 2018, twelve companies (10% of the SBF index) had subordinated perpetual bonds and deeply subordinated perpetual bonds in their equity, and four companies (4% of the CAC 40 index) were still using participating securities. Table 15 summarizes these statistics.

Table 15 – Example with TSDI/TSSDI/TP

	2018
Cumulative amount of TSDI/TSSDI (in billions of €)	€ 34.15 billion
Percentage of TSDI/TSSDI in Equity	13.39%
Percentage of TSDI /TSSDI in Long Term Financial Debts	19.66%
Company issuing the most TSDI/TSSDI (in % of Equity)	Air France/KLM with 21.61%
Company issuing the most TSDI/TSSDI (in billions of €)	EDF with €10.1 billion
Average return of TSDI/TSSDI	3.94%
Cumulative amount of TP (Redeemable shares)	793 M€
Company issuing the most TP (Redeemable shares)	Renault

Observation 2. It is not possible to link a particular sector to whether or not hybrid financing is used. The only observation is that many companies in the IT sector (Alten. Altran. Atos. Dassault Systèmes. etc.) are not financed by any of these instruments, although there are exceptions (Capgemini. Sopra Stéria. etc.).

Observation 3. There is consistency in financial policy over time with respect to financial instruments: the same companies use the same type of financing instruments on a recurring basis. For example, URW issued ORNANE bonds on several occasions (in 2012, 2014 and 2015); Total reports six perpetual subordinated note issues in its 2018 consolidated financial statements, carried out in previous years; Orpéa uses bond loans that are more complex than the average company; etc.

Observation 4. There is no significant difference in the use of hybrid securities between family-owned companies and managerial-type companies. In a sample of 107 groups, and given the financial arrangements involved in setting up holding companies,

it is not possible to make such a distinction. As many instances can be identified in both types of structure. However, it should be noted that companies that issue hybrid securities – especially securities directly related to equity – may have experienced financial difficulties (CGG, EDF, etc.), governance problems (Air France-KLM, Orange, etc.) or the consequences of any inspection related to a merger/acquisition/demerger (Accor, Danone, etc.) at some point in time.

Observation 5. The presentation of hybrid instruments in the consolidated and corporate financial statements is sometimes explicit and clear and at other times confusing. For example, Accor presents its perpetual subordinated notes on a specific line under Equity in its consolidated financial statements and on a separate line under Other Equity in its individual financial statements. Engie, on the other hand, does not present its perpetual subordinated notes directly under Equity (requiring a review of the notes to the financial statements to understand that there were issues) and presents them under Financial Debt in the individual financial statements. This raises the issue of the clauses inserted in the various types of perpetual subordinated notes to understand which categories they fall under. Another example: In its corporate financial statements, URW clearly presents ORA bonds and hybrid securities (perpetual subordinated notes) on separate lines under Other Equity, and ORNANE and other bonds under Financial Debt. In URW's consolidated financial statements, a Hybrid Securities line is included under Equity, which includes ORA bonds and perpetual subordinated notes. For the majority of the groups examined, it was not possible to extract information by reading the balance sheet directly. Only 25% of the companies that issue perpetual subordinated notes and similar instruments disclose these securities on a separate line under Equity. These are Accor, Air France-KLM, Orange and URW. The others disclose absolutely nothing in the balance sheet itself. An in-depth analysis of the notes to the financial statements is therefore required. The question is whether this opacity in the financial statements is due to aesthetic criteria (linked to a concern regarding communication), a lack of education (on the part of the finance department or the audit committee), a lack of clarity and precision (on the part of the IASB), or other more intentional criteria on the part of executive management.

Observation 6. Few companies explain in their registration documents their reasons for using a particular class of hybrid securities. We were only able to find a few groups (see Table 16) that provide their reasons in the notes.

Table 16 – Reasons given for the use of hybrid securities

Companies	Securities	Reasons
EDF	TSSDI	« EDF reaffirms its commitment to hybrid securities financing as a permanent component of its capital structure. in order to finance its assets under construction »
ERAMET	ORDINAN	« This operation strengthened the Eramet Group's balance sheet structure ».
ENGIE	TSSDI	« SUEZ seeks to continuously optimise its financial structure by achieving a balance between its net financial debt and its total shareholders' equity as shown in the consolidated statement of financial position. The Group's main objective in terms of managing its financial structure is to maximize shareholder value. to reduce the cost of capital. to maintain a good rating while ensuring the desired financial flexibility in order to seize value-creating external growth opportunities. The Group manages its financial structure and makes adjustments in response to changing economic conditions. Management policies and procedures have remained unchanged for several years ».
GENFIT	OCEANE	<ul style="list-style-type: none"> - « To complete Elafi branor's phase III clinical development program in NASH and continue its pediatric investigation plan in the same pathology; - prepare. subject to the results of the pivotal Phase III trial, its marketing authorization application; - prepare the potential commercialization of elafibranor in certain pathologies and/or in certain geographical territories; - finance the industrial development phase of the new in vitro diagnostic test as part of the continuation of its biomarker program; and - strengthen the Company's product portfolio through in-licensing or combination strategies in the therapeutic areas of interest to the Company.».
ORPEA	OBSAAR	<ul style="list-style-type: none"> - « To pursue its strategy of disintermediation and optimization of its financial structure; - Optimize the debt profile of €140 million by extending the maturity of part of the debt and reducing the cost of this debt at the same time; - strengthen the means to pursue Orpea's development through a long-term, low-cost resource; - potentially strengthen the company's shareholders' equity in the long term ».
SOLVAY	TSSDI	« The Group manages its financing structure with the objective of safeguarding its ability to continue its activities. to optimize returns for shareholders. to maintain its investment-grade rating and minimize the cost of debt. The Group's capital structure consists of shareholders' equity. including perpetual hybrid bonds and net debt. Perpetual hybrid bonds are nevertheless considered as debt in the Group's underlying measures ».

Observation 7. Hybrid securities may be grouped together according to their accounting treatment. While the approach is legal under French GAAP, under IFRS, it is at the discretion of the issuer – and the auditor – depending on the clauses inserted in the instrument (see Table 17).

Table 17 – Classification of Hybrid Securities

Securities	IFRS	French GAAP
TSDI	Equity	Other Equity
TSSDI*	Equity	Other Equity
TDIRA	Equity/Financial Debts	Other Equity
TP (Redeemable shares)**	Financial Debts Possibility in Equity with IFRS 9	Other Equity
BSA (Warrants)	Equity	Equity
Put on Minority	It depends on whether the issue of the put is before or after 2010	Financial Debts
Perpetual loan	Financial Debts	Financial Debts
Subordinated loan	Financial Debts	Financial Debts
ORA	Equity	Financial Debts
OCA	Equity/Financial Debts	Financial Debts
OCRN	Financial Debts	Financial Debts
OE (Exchangeable bonds)	Financial Debts	Financial Debts
OBSA	Equity/Financial Debts	Financial Debts
ORANE***	Equity/Financial Debts	Financial Debts
ORDINANE	Equity/Financial Debts	Financial Debts
ORDINAN	Equity/Financial Debts	Financial Debts
OBSAAR	Equity/Financial Debts	Financial Debts
OCEANE	Equity/Financial Debts	Financial Debts
ORNANE	Equity/Financial Debts	Financial Debts
ORNAE	Equity/Financial Debts	Financial Debts

* The TSDI asks questions in the individual or parent financial statements. For example, in the 2018 Registration Document of Engie. p.363 it is stated: "In accordance with the opinion of the Order of Chartered Accountants No. 28 published in October 1994, deeply subordinated notes are classified as financial debt". In the Casino Group's 2017 Registration Document. p.141 it is stated: "The "deeply subordinated" perpetual notes (TSSDI) and the hybrid bond issue have the characteristics of "Other equity". Hence the importance of knowing the legal clauses.

** Redeemable Shares are recorded in the individual financial statements of Renault and Saint Gobain under Other Equity in accordance with the French GAAP. However, in 2018, Renault records them under Shareholders' Equity while Saint Gobain records them under Financial debt.

*** Exceptions may occur. Publicis mentions p.189 of the 2018 Registration Document in its consolidated financial statements that the ORANE issued is accounted for as its OCEANE and its OBSA. i.e. with a portion in financial debts, which is an interpretation of IAS32.

As a result, applying IFRS to French GAAP records tends to automatically increase equity.

3.3. Illustrations extraites des documents de référence

By examining the notes to the financial statements in the registration documents, certain definitions, justifications and/or explanations concerning the financial instruments identified can be highlighted (see Table 18).

Table 18 – Extracts registration documents concerning hybrid securities under IFRS

Securities	Justifications
TSDI <i>(Undated subordinated securities)</i>	Undated subordinated notes are accounted for in accordance with IAS 32 and taking into account their specific characteristics. They are recognized in equity at historical cost when there is an unconditional right to avoid paying cash or another financial asset in the form of repayment or return on capital. Coupons paid to holders of securities are recognized directly as a deduction from equity. The issuer recognizes the tax effect in the income statement. These payments are deductible for tax purposes (Accor, 2017).
TSSDI <i>(Undated deeply subordinated securities)</i>	Undated deeply subordinated notes are not recognized in borrowings as they meet the conditions set out in IAS 32 for recognition in shareholders' equity (Engie, 2018). In accordance with IAS 32.11 and given its intrinsic characteristics (no mandatory redemption, no obligation to pay a coupon, except in the event of distribution of dividends to shareholders or repurchase of its own instruments), this instrument is recognized in shareholders' equity. (Véolia, 2018)
TDIRA <i>(perpetual redeemable bonds for shares)</i>	Some Group financial instruments include both a liability component and an equity component. This relates to perpetual bonds redeemable for shares (TDIRAs). On initial recognition, the liability component is measured at its market value, corresponding to the value of the contractually determined future cash flows discounted at the market rate applied at the date of issue to comparable instruments providing substantially the same conditions, but without the option to convert or redeem in shares. This liability component is subsequently recognized at amortized cost. The carrying amount of the equity component is determined at inception by deducting the fair value of the financial liability from the notional value of the instrument. This does not change throughout the life of the instrument. (Orange, 2018, p. 207)
TP <i>(Redeemable shares)</i>	Financial liabilities and Sales Financing debts comprise redeemable shares . Redeemable shares are listed subordinated debt instruments that earn a variable return indexed on consolidated revenues. Redeemable shares are carried at amortized cost, determined by discounting forecast coupons using the effective interest rate on borrowings. It was considered that the contractual minimum return on these shares, i.e., 9%, provided the best estimate of the effective interest rate at their issue date (1983 and 1984). The variable portion is now included in estimation of the effective interest rate, with regular reassessment of the amortized cost recognized in financial income and expenses (Renault, 2018, p. 359)
BSA <i>(Warrants)</i>	A warrant buys one share of the company at a predetermined price and until a certain date. Warrants are issued by the company itself. A warrant does not necessarily give access to a share. A warrant may also allow the purchase of one or more shares or several warrants are required to acquire one share. The holder

Securities	Justifications
	of a warrant has no obligation to buy the share. The exercise of the warrants impacts shareholders' equity to the extent of the cash received in respect of these warrants.
Put on minority	A put option granted to third parties holding minority interests on all or part of their stake is considered as a financial debt for the issuer. It is recognized for an amount corresponding to the present value of the option's exercise price, with a corresponding reduction in equity attributable to minority interests. The difference between the present value of the exercise price of the option granted and the carrying amount of minority interests is recognized in equity attributable to equity holders of the parent. as a deduction from retained earnings. The amount of borrowings is adjusted at each balance sheet date to reflect changes in the option exercise price. against shareholders' equity (Accor, 2017).
Perpetual bonds	In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds with a face value of ECU 5,000 (€5,000 today). A total of 18,496 perpetual bonds have since been bought back and canceled, and 6,504 perpetual bonds were outstanding at end-2018, representing a total face value of €33 million. The bonds bear interest at a variable rate (average of interbank rates offered by the five reference banks for six-month euro deposits). The amount paid out per bond in 2018 was zero. The bonds are not redeemable and interest on the bonds is classified as a component of finance costs (St Gobain, 2018. p. 260).
Subordinated notes	On October 1, 2014, Orange SA issued the equivalent of 3 billion euros of deeply subordinated notes denominated in euros and pounds sterling in three tranches : 1 billion euros with a fixed- rate coupon of 4%, 1.25 billion euros with a fixed- rate coupon of 5% and 600 million pounds with a fixed- rate coupon of 5.75%. A reset of interest rates at market conditions is provided for contractually on each call option exercise date. Both issuances were the subject of a prospectus certified by the AMF under visas no. 14- 036 and 14- 525. Orange has a call option on each of these tranches respectively after October 1, 2021, October 1, 2026, and April 1, 2023 and upon the occurrence of certain contractually defined events (Orange, 2018. p. 224)
ORA <i>(bonds reimbursable in shares)</i>	At 31March 2017, the share capital of Alstom amounted to €1,537,982,810 consisting of 219,711,830 ordinary shares with a par value of €7 each. For the year ended 31 March 2017, the weighted average number of outstanding ordinary shares amounted to 219,322,035 after the dilutive effect of bonds reimbursable in shares “Obligations Remboursables en Actions” and to 223,140,511 after the effect of all dilutive instruments. During the year ended 31 March 2017 : yy 504 bonds reimbursable in shares “Obligations Remboursables en Actions” were converted into 31 shares at a par value of €7. The 77,050 bonds reimbursable with shares outstanding at 31 March 2017 represent 4,839 shares to be issued (Alstom, 2016, p.66)
OCA <i>(Bonds redeemable in shares)</i>	On September 19. 2013. Aperam issued a U.S.\$200 million convertible and/or exchangeable debt instrument with a contractual maturity of 7 years. From June 1. 2017. to October 10. 2017. U.S.\$198 million of Bonds were early converted following notice of conversion received from bondholders and 9.446.550 shares were created and delivered to bondholders against their conversion notices. The remaining U.S.\$2 million were repaid in cash on October 10. 2017 (Aperam, annual report, p.144)
OCRN	On March 22, 2018, Carrefour issued 500 million US dollars' worth of six-year cash-settled convertible bonds . The bonds, which do not bear interest, may be converted into cash only and will not give rise to the issuance of new shares or carry rights to existing shares. In accordance with IFRS 9 – Financial Instruments,

Securities	Justifications
<i>(Cash-settled convertible bonds)</i>	conversion options on the bonds qualify as embedded derivatives and are therefore accounted for separately from inception. Subsequent changes in the fair value of these options are recognised in income and set off against changes in the fair value of the call options purchased on Carrefour shares in parallel with the bond issue. The bonds are recognised at amortised cost, excluding the conversion feature (Carrefour, 2018, p. 232)
OE <i>(Exchangeable bond)</i>	As a reminder, on June 27, 2017 the Group issued bonds exchangeable into BT shares for a notional amount of 517 million pounds sterling (585 million euros at the ECB daily reference rate), bearing a coupon of 0.375% and having an underlying 133 million of BT shares based on a reference price of 2.88 pounds sterling per share. The Bonds mature in June 2021 and have been redeemable on demand by investors since August 7, 2017 in cash, in BT stock or in a combination of the two, at the choice of Orange. The amount redeemed will equal the par value plus any improvement in BT stock beyond 3.89 pounds sterling per share (or 135% of the reference price). Orange, 2018, p. 224.
OBSA <i>(Bonds warrants)</i>	<i>with</i> For debentures with warrants (OBSA) , the liability and equity components are initially recognized separately. The fair value of the debt component at issuance is determined by discounting the future contractual cash flows at market rates that the Company would have had to pay on a bond instrument offering the same terms but without a conversion option. The equity component is measured on issuance by deducting the fair value of the debt component from the fair value of the bond as a whole. The value of the conversion option is not revised during subsequent financial years. Issuance costs are divided between the debt and equity components based on their respective carrying amounts at issuance. The debt component is subsequently measured at amortized cost. (Publicis, 2018, p.189).
ORANE <i>(Redeemable bonds in new or existing shares)</i>	For redeemable debentures (Orane) , the liability and equity components are initially recognized separately. The fair value of the debt component at issuance is determined by discounting the future contractual cash flows at market rates that the Company would have had to pay on a bond instrument offering the same terms but without a conversion option. The equity component is measured on issuance by deducting the fair value of the debt component from the fair value of the bond as a whole. The value of the conversion option is not revised during subsequent financial years. Issuance costs are divided between the debt and equity components based on their respective carrying amounts at issuance. The debt component is subsequently measured at amortized cost (Publicis, 2018, p.189).
ODIRNANE <i>(Undated bonds convertible into new shares and/or exchangeable for existing shares)</i>	On 16 June 2015, Neopost S.A. issued a senior unsecured net share settled undated bond convertible into new shares and/or exchangeable for existing shares (ODIRNANE) for a notional amount of 265 million euros representing 4,587,156 shares with a nominal value of 57.77 euros. This bond is traded on the open market Freiverkehr of the Frankfurt stock exchange. Following the 0.80 euro dividend paid out on 6 February 2018, the ratio has been adjusted to 1.301 from 3 August 2018. As at 31 January 2019, the amount of accrued coupons represents 1.1 million euros and is booked as current debt. (Quadiant, 2018, p. 168).
ODIRNAN <i>(Perpetual bonds with an option to repay in cash and/or existing shares)</i>	L'ODIRNAN is a perpetual bond with no maturity date . Holders do not have the option to redeem the instrument for cash in hand. The instrument can be redeemed in the event of liquidation of the Company with the payment of accrued and deferred coupons, as applicable. The organisation of the coupon payments is left up to Eramet and may be delayed, as Eramet has not decided on a dividend distribution since the penultimate interest payment date (or since the issue date for the first two payment dates). In case of non-payment of coupons, they will remain due and will constitute arrears which will bear interest at the applicable rate for bond coupons.

Securities	Justifications
	<p>The coupon is fixed at an annual rate of 4% until October 2022. It will then switch to a variable rate from 5 October 2022, calculated at the 6-month Euribor rate plus a margin of 1,000 basis points (“step-up” clause). In the event of a change of control of Eramet, the annual interest rate will be increased by 500 basis points unless the Company opts for early redemption within 45 days of the change of control. (Eramet, 2018, p.98)</p>
<p>OBSAAR <i>(Bonds with redeemable warrants to subscribe for new or existing shares)</i></p>	<p>In the second half of 2009, ORPEA made an issue of bonds with redeemable warrants to subscribe for new or purchase existing shares (OBSAAR) in an amount of approximately €217 million or an IFRS net amount of €209 million. The share warrants attached to the bonds were measured at fair value and recognised in equity in the amount of €3 million. This loan is repayable in 2012 and 2013 at 20% of the principal and in 2014 and 2015 at 30% of the principal. The interest rate for the issue is three-month EURIBOR +137 base points before fees. The terms and conditions of these bonds can be found in the securities note approved by the AMF under no. 09-225 on 15 July 2009. At its maturity on 14 August 2015, this bond had been repaid in full (Orpéa, 2015, p. 172)</p>
<p>OCEANE <i>(Convertible bonds into and/or exchangeable for new or existing shares)</i></p>	<p>The OCEANE bond qualifies as a compound financial instrument and, as such, falls within the scope of IAS 32, which requires that the equity component (the call option held by the bondholder to convert the bond into shares) and the debt component (the contractual commitment to deliver cash) be recognized separately on the balance sheet. On October 6, 2017, Elis issued bonds convertible into and/or exchangeable for new or existing Elis shares (obligations à option de conversion et/ou d’échange en actions, or “OCÉANE”) with a maturity date of October 6, 2023. The nominal amount of the issue totals €400 million and is represented by 12,558,869 bonds with a par value of €31.85. The bonds are non-interest bearing (zero coupon). The fair value of the debt component is equivalent to €345.1 million at inception and €54.9 million for the options component (before deferred tax) (Elis, 2018, p. 213)</p>
<p>ORNANE <i>(bonds with a cash redemption option and/or convertible into new or existing shares)</i></p>	<p>On 9 July 2013, ORPEA issued bonds with a cash redemption option and/or convertible into new or existing shares (ORNANE) with an entitlement date of 17 July 2013 and maturing on 1 January 2020. The terms and conditions of these bonds can be found in the securities note approved by the AMF under no. 13-338 on 9 July 2013. The 4,260,631 bonds have a par value of €46.56 each, and a total par value of €198 million. The coupon payable on the bonds is 1.75% per year throughout the life of the bonds, payable six-monthly in arrears. The ORNANE agreement gives bondholders the option to convert their bonds into cash or new shares, in accordance with the terms and conditions in the securities note, from the issue date up to the 18th trading day (exclusive) prior to 1 January. ORPEA may, however, exercise a right of early redemption if the share price exceeds 130% of the par value of the bond, but only from 1 February 2017. The right to receive shares constitutes a derivative for the purposes of IAS 39, with any change in fair value being recognised in profit or loss. In effect, ORPEA enjoys a call option on its own securities in the event the threshold of 130% of the benchmark price is exceeded, but over a more limited exercise period and the bondholder, enjoying an exercise right in the event of early redemption by ORPEA, holds a cross call option enabling them to lock in their gain. (Orpéa, 2015, p.172).</p>
<p>ORNAE <i>(Bonds with an option to repay in cash and/or existing shares)</i></p>	<p>On 17 November 2016, as part of the financing of the WMF acquisition, the company issued €150 million in ORNAE bonds (bonds with optional reimbursement in cash and/or existing shares). In accordance with the provisions of the issue contract, were the conversion price to be hit, the only equity securities to be provided to holders of these ORNAE would be existing company shares (SEB, 2018, p.284).</p>

4. Banks and Insurance Companies

It is impossible to compile statistics on a sample as small as that of the banking and insurance sector included in the CAC 40 and SBF 120 indices (11 entities) for several reasons:

- The difference in size between the entities is too great (the balance sheet total for BNP-Paribas in 2018 was €2.041 trillion compared with €7.2 billion for Coface, i.e. 291 times bigger).
- Some of the entities are in fact only subsidiaries. They are therefore already consolidated (e.g. ALD, a subsidiary of Société Générale; Amundi, a subsidiary of Crédit Agricole; Coface, a subsidiary of Natixis).
- The mix of banking and insurance activities for some compared with others (e.g. AXA is a banking-insurance company whereas Coface is only an insurance company and Scor is a reinsurance company).
- Prudential standards (the Basel Agreements for banks and the Solvency Agreements for insurance companies) that impact certain financial structures differently from others (e.g. BNP-Paribas has a different business model from that of Rothschild & Cie; Amundi and Score have different business lines).
- Regulatory standards such as Basel III or Solvency II impose specific levels of equity and therefore the use of instruments with very specific clauses that cannot be found in industrial and commercial companies (see example 7 in the appendix regarding AXA).
- The financing instruments are not exactly the same. For example, BNP-Paribas issued *“Convertible And Subordinated Hybrid Equity-linked Securities (CASHES) in December 2007. The CASHES are perpetual securities but may be exchanged for Ageas (previously Fortis SA/NV) shares at the holder’s sole discretion. The principal amount will never be redeemed in cash. The rights of the CASHES’ holders are limited to the Ageas shares held by BNP Paribas Fortis and pledged to them”*. 2018 Registration Document. p. 217.
- The subtlety of the clauses and/or terms used or the sub-categorization of hybrid securities. For example, Natixis differentiates between fixed-term subordinated debt and perpetual subordinated debt. *“Subordinated debt differs from advances and bonds issued in that it is repaid after all senior and unsecured creditors. but before the repayment of participating loans and securities and deeply subordinated securities. Subordinated debt issue agreements do not incorporate a clause providing for early redemption in the event that the covenants are not observed”*. 2018 Registration Document. p. 341. However, within fixed-term subordinated debt, there are fixed-term subordinated bonds and fixed-term subordinated loans, while within perpetual subordinated debt,

there are deeply subordinated perpetual bonds, subordinated perpetual bonds and subordinated loans.

- Legal clauses, which are crucial for classification issues, are more complex than they are for industrial companies. For example, Crédit Agricole mentions in its 2018 Registration Document p. 317: *“Issues of redeemable subordinated notes are made either on the French market under French law or on the international markets under English law, the law of the State of New York (United States) or Japanese law. The redemption of redeemable subordinated notes will occur after repayment to preferred and unsecured creditors (including preferred and non-preferred senior bond creditors), but before the repayment of participating loans granted to Crédit Agricole S.A. and participating securities issued by it and before the repayment of ‘deeply subordinated’ notes (‘Issues of Deeply Subordinated Notes’)”*.

As can be seen, the “major” banks and insurance companies all issue hybrid instruments (a type of subordinated debt) for financing purposes and to comply with regulatory constraints. Their volumes are in no way comparable to those of industrial and commercial companies.

5. Study Summary and Discussion

The statistical study of the financial structures of companies belonging to the CAC 40 and SBF 120 indices between 2010 and 2018 makes the following observations:

- The median overall corporate debt increased significantly over the period.
- On average, short-term and long-term financial debt increased, but not proportionally over the period.
- Short-term financial debt was much higher for CAC 40 companies than for those in the NEXT 80 index.
- The proportion of minority shareholders increased significantly from 2013;
- Only 53% of companies in the SBF 120 index used at least one hybrid instrument over the period.
- Subordinated debt continues to be used primarily by major industrial (EDF, Engie, Total, etc.) and financial (Axa, BNP-Paribas, etc.) companies.
- On average, the amount of subordinated debt is relatively small compared with the amount of equity and financial debt.
- OCEANE bonds are the type of bond debt – of interest to us in this study in terms of the accounting aspects – most widely used by SBF 120 companies.

The question as to whether a hybrid instrument should be accounted for as equity or debt raises a number of preliminary questions:

- What are the main hybrid securities used worldwide? Are there securities that are similar for the purpose of comparative studies?
- What are the reasons behind senior management's decision to use hybrid instruments?
- Why do some companies in a particular sector, use hybrid securities while others in the same sector do not use them at all?
- Are there life stages (growth, merger, restructuring, etc.) during which the use of such instruments is more frequent?
- Are there any sector-specific characteristics for using hybrid securities?
- Should the accounting standard setter consider industrial and service companies separately from companies in the banking and insurance sectors that are subject to regulatory constraints?

Among the most common hybrid securities in the world, convertible bonds are the most widespread instruments both in terms of volume traded and number of issuing countries. As a result, the academic literature points to three main explanations for the use of convertible bonds (see Dutortoir *et al.*, 2014):

- Studies that seek to understand the motivations of senior management to issue hybrid securities in general and convertible bonds in particular. Financial theories based on the neoclassical approach provide no explanation for these complex securities, even excluding them from their scope. It was not until the 1980s and 1990s that a few theoretical currents emerged (Green, 1984; Mayers, 1988; Stein, 1992; Isagawa, 2000; etc.) leading to an explanation that was often fragmented. All these theories revolve around the general concept of corporate governance and more specifically around the asymmetry of information, rootedness and control.
- Studies that focus on the technical characteristics of convertible bonds and examine the consequences of financial clauses (option mechanisms, step-up mechanisms, etc.). Most of these studies overlook the legal and fiscal mechanisms, which are nevertheless fundamental because international comparisons are complex from this perspective.
- Studies that compare the financial enrichment of shareholders and creditors with the various financial instruments, which tend to take the side of investors rather than issuers (which is not the position of our study).

In conclusion, leaving aside the particular case of the banking and insurance sector, which involves its own problems and constraints, the issue concerning the distinction

between debt and equity instruments is, from a theoretical point of view, a question of control and therefore of governance.

6. References

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7. Appendix: explanations and examples of recognition

It is possible to highlight certain financial instruments that differ in terms of accounting treatment between international (IFRS) and French GAAP.

Case 1: ACCOR. Registration document 2017 - p. 267-317

Consolidated Statements

<i>Equity & Liabilities ((in millions of euros)</i>	<i>Notes</i>	<i>Dec. 2016</i>	<i>Dec. 2017</i>
Share Capital	13	854	870
Additional paid-in capital and reserves	13	3 651	3 287
Net profit of the year		265	441
ORDINARY SHAREHOLDERS' EQUITY		4 771	4 598
Hybrid capital	13	887	887
Shareholders' equity - Group share		5 658	5 485
Minority interests	13	267	341
Shareholders' equity and minority interests	13	5 925	5 826
Long-term financial debt	11	2 176	2 768
Short-term financial debt	11	733	237

13.1.4 Perpetual subordinated notes

On June 30, 2014, AccorHotels issued €900 million worth of perpetual subordinated notes. The notes have no fixed maturity ; their first call date is June 30, 2020. The interest rate on the notes is set at 4.125% up until June 30, 2020 and will be reset every five years thereafter, with a 25-bps step-up in June 2020 and a 275-bps step-up in June 2040. Interest is payable on the notes only in those periods for which a dividend is paid to shareholders. Due to their characteristics and in accordance with IAS 32, the notes have been recorded in equity for €887 million net of transaction costs. Interest on the notes is also recorded in equity.

In 2017, interest payments on perpetual subordinated notes amounted to €37 million

	Dec. 2016	Dec. 2017
Bonds	2 635	2 748
Bank borrowings	67	30
Bonds and Bank borrowings	2 702	2 779
Other financial debts	172	202
Derivative financial instruments	34	24
Gross financial debt	2 908	3 005
Of which, long-term liabilities	2 176	2 768
Of which, short-term liabilities	733	237
Cash and cash equivalents	1 169	1 063
Other current financial assets	42	30
Derivative financial instrument	15	24
Financial assets	1 226	1 117
NET DEBT	1 682	1 888

Parent Company financial statements

Liabilities & Equity ((in millions of euros)	Notes	Dec. 2016	Dec. 2017
Share Capital	(13-14)	854	870
Additional paid-in capital	(13-14)	2 612	2 473
Legal reserve	(13)	71	71
Untaxed reserves	(13)	9	9
Other reserves	(13-14)	11	11
Retained earnings	(13)	-	-
Net profit for the yea	(13)	(9)	3 698
Untaxed provisions	(7-13)	8 –	
Shareholders' equity		3 556	7 132
Proceeds from issue of non-voting securities (perpetual hybrid bonds)		894	894
Other equity		894	894
Provisions for contingencies	(7)	49	68
Provisions for charges	(7)	79	68
Provisions for contingencies and charges		128	136
Other bonds	(12-16-17)	2 594	2 564
Bank borrowings	(12-17)	306	478
Other borrowings	(12-17-19)	1 928	2 833

OTHER EQUITY

Currency	euros	Original issue amount	Fixed/Variable	Rate	Ousting Dec 2016	Dec 2017
June 2014 issue of perpetual hybrid bonds		900	Fixed	4.125 %	900	900
Issue premium on perpetual hybrid bonds					(6)	(6)
OTHER EQUITY					894	894

On June 30, 2014, Accor placed a €900 million issue of perpetual hybrid bonds. The bonds have no maturity date but are first callable as from June 30, 2020. They have been classified as “Other equity” in the Company’s balance sheet and the €6 million issue premium has been recorded as a deduction from the nominal amount of the debt. The interest payable on the bonds is included in “Other borrowings” and the related debt issuance costs are being amortized through the income statement.

Following the Coronavirus crisis, Accor's Board of Directors decided on April 2, 2020 not to pay the €280 million dividend for fiscal year 2019 and to allocate 25% of this amount to a fund to help its employees and franchisees. As a result, the Group has no obligation to pay interest on the perpetual subordinated notes on June 30, 2020 or to redeem them early. The holders of the perpetual hybrid bonds are subject to the decision of the Board of Directors. It is indeed an asymmetrical contract between issuer and holder, which is nothing other than a debt governance instrument.

Case 2: CASINO. Registration document 2017 - p.117-154

Consolidated Financial Statements

Liabilities & Equity (in millions of euros)	Notes	2017	2016
Share capital	12.2	170	170
Additional paid-in capital, treasury shares and retained earnings		7 414	8 280
Equity attributable to owners of the parent		7 584	8 450
Non-controlling interests	12.7	5 473	5 990
Total equity	12	13 057	14 440

12.5. DEEPLY SUBORDINATED PERPETUAL BONDS (TSSDI) p. 117

At the beginning of 2005, the Group issued 600,000 deeply subordinated perpetual bonds (TSSDI) for a total amount of €600 million. The bonds are redeemable solely at the Group's discretion and interest payments are due only if the Group pays a dividend on its ordinary shares in the preceding 12 months. The bonds pay interest at the 10-year constant maturity swap rate plus 100 bps, capped at 9%. In 2017, the average coupon was 1.71%.

On 18 October 2013, the Group issued €750 million worth of perpetual hybrid bonds (7,500 bonds) on the market. The bonds are redeemable at the Group's discretion with the first call date set for 31 January 2019. They pay a coupon of 4.87% until that date, after which the rate will be revised every five years.

Given their specific characteristics in terms of maturity and remuneration, the bonds are carried in equity for the amount of €1,350 million. Issuance costs net of tax have been recorded as a deduction from equity.

Parent company financial statements p. 141

Liabilities & Equity (in millions of euros)	Notes	2017	2016
Equity	10	7 874.4	7 825.4
Quasi Equity	11	1 350.0	1 350.0
Provisions	12	200.9	236.7
Loans and other borrowings	13	6 215.2	6 887.4

Note 11. Quasi Equity p.154

On 18 October 2013, the Company issued €750 million worth of perpetual hybrid bonds. The bonds are redeemable at the Company's discretion with the first call date set for 31 January 2019. The bonds pay interest at 4.87% until that date, after which the rate will be reset every five years. These bonds are classified as "quasi-equity" as they :

- are issued for an indefinite term with no specific redemption date;
- correspond to direct commitments with no collateral and are subordinated to all other liabilities.

Accrued interest on the bonds is reported under "Miscellaneous borrowings"

Thus, the €1,350 million (the €600 million perpetual subordinated perpetual notes + the €750 million perpetual bond) can be read in the parent company financial statements directly under the heading "Other equity". Shareholders' equity then only amounts to €7874.4 million.

Under IFRS, shareholders' equity amounts to € 13,057 million, of which € 7,584 million is group share. Included in the latter amount is €1,350m.

Case 3: ORPEA. Registration document 2015 - p.117-154

Consolidated Financial Statements (in thousands of euros)	Notes	31/12/2015	31/12/2014
LIABILITIES			
Share Capital		75 342	69 460
Consolidated reserves		1 356 321	1 081 919
Revaluation reserve		251 223	225 812
Net profit for the year		126 634	120 777
Equity attributable to owners of the Company		1 809 520	1 497 968
Minority interest		190	379
Total equity		1 809 710	1 498 346
Non-current financial liabilities		3 218 989	2 479 025
Change in the fair value of the entitlement to the allotment in ORNANE bonds		72 993	29 993
Provisions		86 243	50 645
Post-employment and other employee benefits obligatio		51 215	46 136
Deferred tax liabilities		851 714	790 096
Non-current liabilities		4 281 153	3 395 894
Current financial liabilities		314 218	321 669
Provisions		23 241	19 177
Trade payables		254 137	234 217
Tax and payroll liabilities		215 141	244 490
Current income tax liability			3 579
Other liabilities, accruals and prepayments		273 724	368 816
Current liabilities		1 080 460	1 191 947

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3.10.3 Share warrants (BSAAR)

On 17 August 2009, ORPEA issued bonds with redeemable warrants to subscribe for new or existing shares (OBSAAR). This led to the creation of 1,190,787 warrants. These warrants were exercisable from 14 August 2011 to 14 August 2015 inclusive and entitled the holders to subscribe to 1,062 ORPEA shares for an exercise price of €37.90. In 2013, ORPEA acquired and cancelled 917,041 share warrants as part of the public tender offer launched by the Company, approved by the AMF on 17 September 2013 under number 13-459. 84,460 share warrants were exercised in 2014, 159,308 share warrants were exercised during the 2015 financial year, and 2,248 warrants expired.

3.10.4 OCEANE

During the second half of 2010, ORPEA issued 4,069,635 bonds convertible into or exchangeable for new or existing shares (OCEANE). The OCEANE conversion was completed on 4 February 2015, resulting in the issue of 4,536,588 new shares, representing a capital increase of €5.7 million and €173.2 million in issue premiums.

(in thousands of euros)

	Number of shares	Amounts of the share capital	Shares premiums
Share capital at 31/12/2014	55 567 893	69 460	476 121
Appropriation of net profit			(35 000)
Exercise of share warrants	169 210	212	5 828
Exercise OCEANE	4 536 588	5 671	173 226
Capital increase			
Share capital at 31/12/2015	60 273 691	75 342	620 175

ORNANE bond issue:

On 9 July 2013, ORPEA issued bonds with a cash redemption option and/or convertible into new or existing shares (ORNANE) with an entitlement date of 17 July 2013 and maturing on 1 January 2020. The terms and conditions of these bonds can be found in the securities note approved by the AMF under no. 13-338 on 9 July 2013. The 4,260,631 bonds have a par value of €46.56 each, and a total par value of €198 million. The coupon payable on the bonds is 1.75% per year throughout the life of the bonds, payable six-monthly in arrears.

The ORNANE agreement gives bondholders the option to convert their bonds into cash or new shares, in accordance with the terms and conditions in the securities note, from the issue date up to the 18th trading day (exclusive) prior to 1 January. ORPEA may, however, exercise a right of early redemption if the share price exceeds 130% of the par value of the bond, but only from 1 February 2017.

The right to receive shares constitutes a derivative for the purposes of IAS 39, with any change in fair value being recognised in profit or loss. In effect, ORPEA enjoys a call option on its own securities in the event the threshold of 130% of the benchmark price is exceeded, but over a more limited exercise period and the bondholder, enjoying an exercise right in the event of early redemption by ORPEA, holds a cross call option enabling them to lock in their gain.

The agreement also contains standard anti-dilution provisions in the event of capital increases, the distribution of reserves (including earnings for the 2012-2018 period), etc.

CHANGE IN THE FAIR VALUE OF THE ENTITLEMENT TO THE ALLOTMENT OF SHARES IN ORNANE BONDS

Since the launch, the fair value of the entitlement to the allotment of shares in ORNANE bonds has changed as follows:

(in thousands of euros)

Change from 2013	4 893
Change from 2014	25 100
Change from 2015	43 000
OVERALL CHANGE FROM START	72 993

At 31 December 2015, the change in fair value recognised in net finance cost amounted to €43 million. On the basis of data at 31 December 2015, a +/-10% change

in the price of the ORPEA stock would produce a +/- €7 million change in the value of the option, impacting profit or loss. If it is exercised and the strike price is reached, the option will trigger the allocation of shares. These changes have no cash impact.

Other bonds:

In 2014, the Group also issued a Schuldscheindarlehen type loan in the amount of €203 million and a bond issue on the Euro PP market with the issue of 520 bonds at a unit price of €100,000 (securities note approved by the AMF under no. 14-443 on 29 July 2014). These bonds will be redeemed on 31 July 2021. In July 2015, the Group issued new Schuldscheindarlehen type loans for an amount of €350 million.

Case 4: URW (Unibail Rodamco Westfield). Registration document 2017

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	2017	2016
Shareholders' equity (Owners of the parent)	18 916.2	17 465.3
Share capital	499.3	497.0
Additional paid-in capital	6 470.7	6 402.3
Bonds redeemable for shares (ORA)	1.1	1.2
Consolidated reserves	9 715.9	8 349.3
Hedging and foreign currency translation reserves	(210.3)	(193.4)
Consolidated result	2 439.5	2 409.0
Non-controlling interests	3 777.0	3 554.4
TOTAL SHAREHOLDERS' EQUITY	22 693.2	21 019.7
Non current liabilities	16 851.6	16 209.9
Long-term commitment to purchase non-controlling interests	-	40.9
Net share settled bonds convertible into new and/or existing shares (ORNANE)	1 020.5	1 049.4

As at December 31, 2017, the ORNANEs are presented in the table below :

	Debt at Fair Value	Fair Value recognized in the P&L
ORNANE issued in 2012	0.3	1.6
ORNANE issued in 2014	525.3	23.2
ORNANEs issued in 2015	495.2	(3.7)
TOTAL	1 020.8	21.1

Statutory financial statements

LIABILITIES AND EQUITY (€ thousands)	12/31/2017	12/31/2016
Shareholders' equity	9 106 658	8 862 561
Share capital	499 283	496 969
Additional paid-in capital	6 470 720	6 402 265
Legal reserve	49 697	49 347
Other reserves	27 314	27 314
Retained earnings	867 814	1 343 299
Result for the period	1 191 830	543 367
Other equity	1 150	1 161
Bonds redeemable for shares (ORA)	1 150	1 161
Provisions for contingencies and expenses	75 783	88 640
Borrowings and financial liabilities	16 086 932	15 452 396
Convertible bonds	1 000 276	1 007 841
Other bonds	10 855 110	9 769 379
Bank borrowings and debt	104 213	102 527
OTHER EQUITY (€ thousands)	12/31/2017	12/31/2016
Bonds redeemable in shares	1 150	1 161
TOTAL	1 150	1 161

Following the public exchange offer involving Unibail-Rodamco SE and Rodamco Europe BV, Unibail-Rodamco SE issued 9,363,708 bonds redeemable in shares (ORA) at €196.60 (Board Meeting of June 21, 2007) in consideration for Rodamco Europe BV shares. Each Unibail-Rodamco SE ORA bond was issued at par, i.e., a unit value equal to the value of the Unibail-Rodamco SE shares tendered in exchange for the Rodamco shares. In 2017, 59 ORA bonds were redeemed, representing a total of 9,357,861 bonds redeemed since issuance. As at December 31, 2017, a total of 5,847 ORA bonds were outstanding, redeemable in 7,309 shares.

Case 5: SOLVAY. Registration document 2018 - p. 259

Perpetual hybrid bonds

To strengthen its capital structure, Solvay issued undated deeply subordinated perpetual bonds (“perpetual hybrid bonds”) of respectively € 1.2 billion (€ 1,194 million net of issuance costs) in 2013 following the acquisition of Chemlogics, € 1.0 billion (€ 994 million net of issuance costs) in 2015 for the financing of the acquisition of Cytec, and € 300 million (€ 298 million net of issuance costs) in November 2018.

All perpetual hybrid bonds are classified as equity in the absence of any unavoidable contractual obligation to repay the principal and interest of the perpetual hybrid bonds, specifically:

- no maturity, yet the issuer has a call option at every reset date to redeem the instrument;
- at the option of the issuer, interest payments can be deferred indefinitely

The coupons related to the perpetual hybrid bonds are recognized as equity transactions and are deducted from equity upon declaration (see consolidated statement of changes in equity):

- amounting to € 57 million in 2018 (€ 57 million in 2017) for the 2013 € 1.2 billion issuance (€ 700 million NC5.5 at 4.199% and € 500 million NC10 at 5.425%);
- amounting to € 55 million in 2018 (€ 55 million in 2017) for the 2015 € 1.0 billion issuance (€ 500 million NC5.5 at 5.118% and € 500 million NC8.5 at 5.869%).

Should Solvay have elected not to pay any interests to the perpetual hybrid bond holders, then any payment of dividends to the ordinary shareholders or repayment of ordinary shares would trigger a contractual obligation to pay previously unpaid interests to the perpetual hybrid bond holders. Tax impacts relating to the perpetual hybrid bonds are recognized directly in equity

Case 6: Renault. Registration document 2012 and 2018

Redeemable shares 2012 – p. 238

The redeemable shares issued in October 1983 and April 1984 by Renault SA are subordinated perpetual shares. They earn a minimum annual return of 9% comprising a fixed portion 6.75% and a variable portion that depends on consolidated revenues and is calculated based on identical Group structure and methods. The return on redeemable shares, amounting to €17 million for 2012 (€17 million for 2011), is included in interest expenses. These shares are listed on the Paris Stock Exchange, and traded for €290 at December 31, 2011 and €312 at December 31, 2012 for par value of €153, leading to a corresponding €18 million adjustment to the fair value of redeemable shares recorded in other financial expenses

In accordance with IAS 39, the Group considers that the variable interest on redeemable shares is an embedded derivative which cannot be valued separately. Consequently, the Group has stated **all its redeemable shares at fair value**. For these shares, fair value is equal to market value

Accounting treatment of redeemable shares held by Renault SA 2018 – p. 347

After reviewing the accounting methods for redeemable shares held by Renault SA, in preparation for application of the new standard IFRS 9, the Group decided to make a voluntary accounting change. Although IFRS 9 did not change IAS 39 rules for instruments carried at fair value through profit and loss, the new standard requires the portion of the change in fair value that relates to the issuer's own credit risk to be recognized separately in shareholders' equity. Since the redeemable shares are perpetual instruments, the "own credit risk" component of their fair value could not be reliably and consistently identified

The characteristics of the return on Renault redeemable shares does not preclude recognition at amortized cost, as this return is partly indexed on Renault revenues. This can be analyzed as a derivative or otherwise, depending on whether the change in consolidated revenues is considered as a financial variable or a non-financial variable, as the choice between the two is a choice of accounting method. When IFRSs were first applied in 2005, the Group opted to consider this indexation as financial in nature and the full value of redeemable shares was stated at fair value through profit and loss, with no separation of the embedded derivative.

The decision was made to opt for the second method from January 1, 2018 (i.e., considering the change in consolidated revenues as a non-financial variable), and **consequently to state the redeemable shares at amortized cost**. This amortized cost is calculated by discounting the forecast coupons on redeemable shares, applying the corresponding effective interest rate. The Group considered that the minimum contractual return on the redeemable shares, i.e., 9%, was retrospectively the best estimate of the effective interest rate at the shares' issue date (1983 and 1984). The

variable portion is now fully included in estimation of the effective interest rate, with regular adjustment in compliance with point B 5.4.6 of IFRS 9, to be recorded in financial income and expenses.

This voluntary change of accounting method is justified since the Group cannot determine the portion of the change in fair value of redeemable shares that relates to the issuer's own credit risk, no other issuer of this type of instrument has been identified that reports it at fair value through profit and loss, and also since it does not appear possible to analyze stock market movements in the redeemable share price in correlation with movements in the underlyings. The new approach will make the net financial income (expenses) clearer and improve comparability with other issuers of this type of instrument.

As this is a voluntary change of method, the comparative figures from 2017 have also been modified, and so has the internal indicator of the net financial indebtedness of the Automotive segments (cf. 4.2.6.1.A4). The book value of these **debt instruments** at December 31, 2017 was recalculated at January 1, 2017 and in the statement of financial position becomes the amortized cost of the debt instrument.

Consolidated Statements

Financial Liabilities (€M)	12/31/ 2018	12/31/2017 ajusted	12/31/2017 no ajusted
Renault SA Redeemable shares	277	273	554
Bonds	5 246	4704	4704
Financial liabilities in Fair Value			
Redeemable shares	479	554	554
Stock price Redeemable shares	601 €	695 €	695 €

The amount of redeemable shares was €554 million at 12/31/2017 before restatement; the amount becomes €273 million at 12/31/2017 after restatement according to IFRS 9. We have a difference: 554 and 273 = €281 million.

This resulted in a decrease in debt of €281M and an increase in equity of €237M (the €44 M of differences are treated as deferred tax assets).

Redeemable shares are now recognized at amortized cost, whereas they were previously recognized at fair value through profit or loss (application of the market price at each balance sheet date).

RENAULT SA ANNUAL FINANCIAL STATEMENTS

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Redeemable shares are recorded in a separate line of shareholders' equity at nominal value with no subsequent revaluation. 797,659 redeemable shares remained on the market at December 31, 2018, for a total of €130 million including accrued interest.

BALANCE SHEET – SHAREHOLDERS’ EQUITY AND LIABILITIES

(€ million)	2018	2017
Share capital	1 127	1 127
Share premium	4 782	4 782
Equity valuation difference	5 901	5 672
Legal and tax basis reserves	113	113
Retained earnings	8 173	8 263
Net income	1 726	937
SHAREHOLDERS’ EQUITY	21 822	20 894
REDEEMABLE SHARES	130	130
PROVISIONS FOR RISKS AND LIABILITIES	382	354
Bonds	5 240	4 667

Case 7: Axa. Registration document 2018 - p. 94

Hybrid debt instruments eligible for Tier 1 must not exceed 20% of the total amount of Tier 1 capital.

DATED AND UNDATED SUBORDINATED DEBT DESCRIPTION

Subordinated notes issued by the Company since January 18, 2015 have been structured to be eligible as own funds regulatory capital under Solvency II regulations. Subordinated notes issued prior to January 18, 2015 mostly benefit from the transitional provisions set forth in Directive 2014/51/EU (Omnibus II), which amended the Solvency II Directive, as they were previously eligible under the Solvency I regime and were issued prior to the entry into force of Delegated Regulation EU 2015/35 of October 10, 2014.

The Company has [issued dated subordinated notes \(“TSR”\)](#), [undated subordinated notes \(“TSDI”\)](#) and [undated deeply subordinated notes \(“TSS”\)](#), which include provisions designed to allow the Company to ensure the continuity of its activities in the event its financial position deteriorates.

Certain TSR include clauses which permit or force the Company to defer interest payments. In addition, redemption at maturity is subject to (i) the prior approval by the Autorité de contrôle prudentiel et de résolution (the “ACPR”), (ii) the absence of any event (a) making the own funds of the Company and/or the Group insufficient to cover its regulatory capital requirements or (b) pursuant to which the Company would have to take specified action in relation to payments under the notes due to its financial condition or (c) having an adverse effect on its insurance subsidiaries claim payments ability.

Pursuant to the terms and conditions of AXA’s TSDI, the Company may, at its option, under certain circumstances and shall, in other circumstances, defer interest payment (e.g. no dividend declared or paid in the preceding Annual Shareholders’ Meeting or receipt by the Company or by certain of its principal insurance subsidiaries of a regulatory demand to restore their solvency position). Payment of deferred interest may become due in certain specified cases (e.g. payment of a dividend, notification of the end of a regulatory demand to restore solvency, liquidation of the Company or redemption of the TSDI).

Hybrid Securities and Accounting Standards: An International Comparison

Abstract This paper is a preliminary version of a research contract supported by ANC related to the distinction between equity and debt. In line with the IASB project on Financial Instruments with Characteristics of equity (FICE), we undertake a comprehensive study of the legal, fiscal and accounting framework applied to hybrid securities among five representative countries: Australia, Canada, USA, France, United Kingdom. Having explained their domestic legal and tax qualifications, we compare the methods of their accounting classification and their valuation used. We conclude that the US GAAP offers the more detailed scheme for accounting hybrid securities. We thus recommend to the IASB for its FICE project the implementation of a mezzanine category in order to classify compound hybrid securities.

JEL Classification:

Accounting standards – IFRS – Debt – Equity - Mezzanine

1. Introduction

These days, a company interested in using the bond market to finance itself should keep a close eye on its level of debt. Too high a level of debt could have a negative influence on its rating, forcing it to increase the rate of return expected by investors. Rating agencies such as Standard & Poor's (S&P) generally consider that 50% of the outstanding amount of a hybrid bond can be treated as equity (S&P, 2008). The debt taken on by the issuer will therefore only increase its debt level by up to half of the outstanding amount. This simplified example illustrates how companies can use hybrid securities without increasing their levels of debt too much. These hybrid securities are "halfway between a capital contribution and external debt" (Geninet, 1987, p.41), making the shareholder a lender and the investor a quasi-partner. Moreover, to meet shareholder demands for improved returns in a low interest rate environment (Ragot and Thimann, 2016),⁴ one solution for companies is to issue more hybrid securities to increase returns to shareholders.

The reasons for issuing hybrid securities are varied and generate different legal, tax and financial arrangements. According to Aberbach (2009), hybrid securities benefit investors by providing them with bankruptcy protection, unlike ordinary shares. Very often, they also offer a higher return than conventional debt securities by allowing interest to be tax deductible and avoiding dilution for existing shareholders (Gissinger, 2006). Hybrid securities such as convertible bonds are also a controversial research topic in corporate finance as they depend on the legal, tax and accounting environment of their country of issue (Dutordoir *et al.*, 2014). Moreover, following the financial crisis and the implementation of new banking regulations, the legal, tax and accounting issues surrounding hybrid securities have become more complex.

In terms of financial theory, it now seems feasible to provide new answers to hybrid security financing for specific entities such as financial institutions subject to regulatory constraints. However, the legal and tax treatment of this type of financing remains unclear. In this regard, the *Financial Instruments with Characteristics of Equity* (FICE) project, which is in the process of being ratified by the IASB, deserves special attention for two reasons. Firstly, the regulator's commitment to improving financial and banking regulations relating to issues of hybrid securities is becoming increasingly important. From an international perspective, these financial and accounting reforms confirm the relevance of analyzing the economic interest of these hybrid securities by comparing the main markets concerned. Secondly, these changes require a preliminary study of how accounting recognition methods vary from one piece of legislation to another. In the United Kingdom, the Companies Act 2006 (CA) established a very legal approach to distinguish share capital (equity) from borrowed capital (debt). Borrowed capital, in the form of debt, must be based purely on contractual agreements: it is not regarded

⁴ "The cost of equity (remuneration demanded by shareholders) stopped decreasing in 2015 and is well above the return on equity, reflecting shareholders' concerns about the sustainability of current business models." (Ragot and Thimann, 2016, p. 216)

as granting access to shareholders' rights (unless expressly mentioned). This distinction between debt and equity has not, however, prevented the UK legislator from allowing issuers a great deal of leeway in creating hybrid financial instruments. The fact that party autonomy and flexibility is one of the pillars of corporate governance (Davies and Rickford, 2008) leads to a fundamentally different approach to hybrid instruments than in other European countries. This is because, where exercising the conversion right of convertible bonds is an option available to the holder of convertible debt, the convertible debt is treated as ordinary debt for accounting purposes. However, where conversion is mandatory, classifying it as equity becomes possible, even if this has an adverse effect on the risk structure of the hybrid debt instrument. In addition, the accounting treatment of such a compound financial instrument has undergone significant changes since the replacement of FRS 25 by FRS 102 in 2015, which is consistent with the recommendations of IAS 32 Financial Instruments: Presentation. However, IAS 32 is based on a general definition of a financial instrument that "is an equity instrument if, and only if, the issuer has no contractual obligation to deliver cash or another financial asset under conditions that are potentially unfavorable to the issuer". Therefore, perpetual non-redeemable bonds with coupon payments that can be deferred at the issuer's discretion are classified as equity. Does such an accounting treatment really correspond to economic reality?

There is room for doubt in the sense that the rating agencies have adopted a more risk-based approach by considering perpetual bonds as quasi-equity, half of which is recorded as equity (rather than directly as debt in the FICE project?). Is there a flaw in the IASB's reasoning if the obligation to repay is only economic? At the national level (i.e. in the issuing country), what principles should be applied to the accounting treatment of hybrid securities, assuming these principles have been formalized?

While today some hybrid securities are better understood than others (Dutordoir *et al.*, 2014), their wide variety and complexity make it impossible to generalize about how to explain and answer these questions. Furthermore, their sheer number creates differences and even inconsistencies in their reporting in the group financial statements. Recognizing that their financial structures may be impacted by changes in the accounting standards they apply, the objective of this paper is to examine in detail the issues related to the accounting treatment of hybrid securities in the major developed economies.

Even though US GAAP, IFRS and national accounting standards have gradually converged over the last few years, they still have different definitions and, more importantly, different accounting mechanisms that result in companies making different financial trade-offs depending on the regulatory framework they use. For example, US GAAP has always attached great importance to the distinction between equity and debt and has historically favored classification as debt where there is any doubt. Many instruments classified as equity under IFRS are thus classified as debt under US

GAAP. The case of perpetual bonds is interesting because according to SFAS 150,⁵ interest payments are considered to contain a principal repayment component. While this approach seems appropriate for perpetual bonds, it has its limitations in the case of convertible bonds. These bonds, which can be settled by delivering cash, can be treated as a special case,⁶ being split into a debt and an equity component. In this case, the components will require separate recognition at fair value (APB 14-1).⁷ This treatment is similar to that recommended by IAS 32, in that a compound financial instrument⁸ with debt and equity components must have separate accounting treatment for each component. The debt component is recognized at fair value, calculated by discounting cash flows at a market rate for similar debt instruments. The equity component is measured as a residual amount, as the difference between the nominal value and the present value.

Echoing the IASB's FICE project and in view of the importance of classifying hybrid securities as equity or debt for companies, our paper proposes a preliminary study of the various legal, tax and accounting regimes in five representative countries (Australia, Canada, the United States, France and the United Kingdom) structured along two main lines:

- The use of hybrid financing is analyzed through a review of the legal and tax frameworks adopted by each country. The question of taxation through the deductibility of interest payments on hybrid financing immediately arises.
- A comparison of Australian, US, UK, French and Canadian accounting texts addressing the issue of the accounting recognition of hybrid instruments will provide a means to assess the disparities in the financial structures of companies.

The remainder of this paper is organized as follows. The following section provides an overview of the hybrid securities market in an international context. The third section provides a classification of the different hybrid securities used, from both a legal and tax perspective. A review of the accounting recognition methods used in the five selected countries (Australia, Canada, the United States, France and the United Kingdom) is presented in the fourth section. Lastly, the fifth section concludes the paper by proposing the introduction of an intermediate category referred to as "mezzanine", which aims to achieve greater harmonization in the accounting treatment of hybrid financial instruments.

⁵ SFAS 150 "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity".

⁶ EITF 90-19: "Convertible Bonds with Issuer Option to Settle for Cash upon Conversion".

⁷ APB14-1 "Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)".

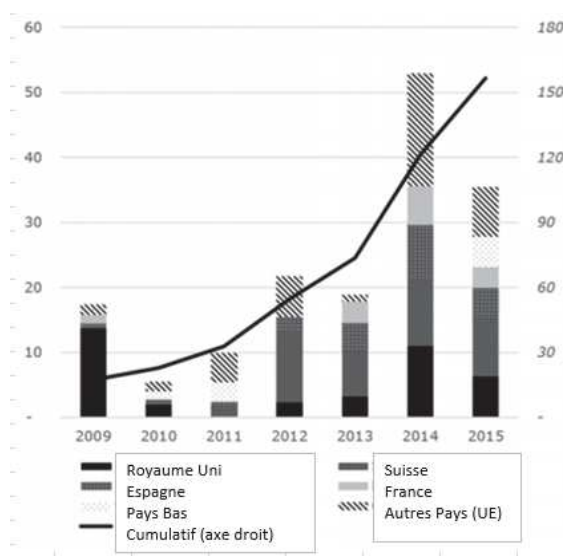
⁸ These include, for example, preferred stock with a redeemable preferred stock option, whose dividends are paid solely at the issuer's discretion, or the various types of convertible bonds.

2. Overview of the Hybrid Securities Market

Hybrid securities have experienced considerable growth since the 1990s (+400% in ten years),⁹ particularly in the US and European markets. Their history can be divided into two periods: before and after the 2008 financial crisis (Eiger *et al.*, 2015). In 2008/2009, very few issues took place in Europe due to fears of bankruptcy among financial institutions. After the financial crisis, the value of hybrid securities issues picked up again for all forms of organizations.

As Figures 1 and 2 show, European banks, particularly British, Spanish and French banks, have shown great interest in contingent convertible bonds (CoCos), issues of which have been increasing since 2009. At the crossroads of bonds and equities, CoCos help banks to strengthen their regulatory capital to meet stricter capital requirements. Unlike conventional bonds, these bonds are converted into equities when a specific event occurs, such as a deterioration in the Core Tier 1 ratio (Attia and Fleuret, 2011).

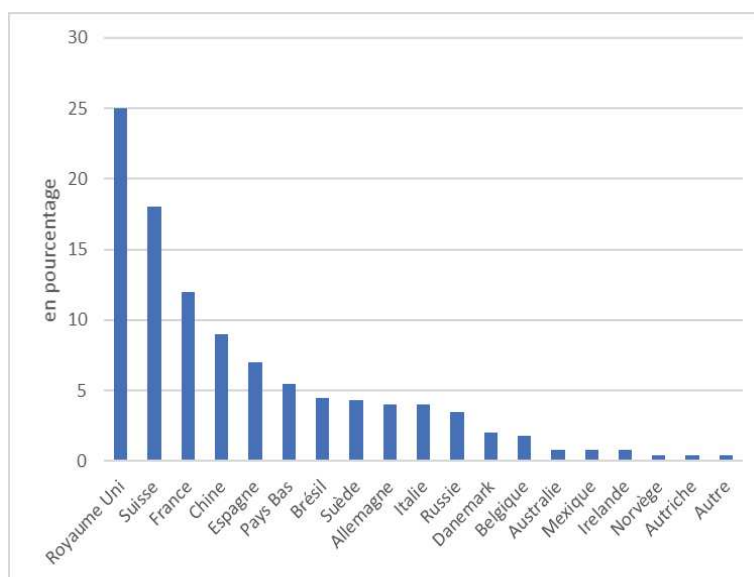
Figure 1 – European Convertible Contingent Bonds issues (2009-2015)



Source: Boermans and Van Wijnbergen (2017)

⁹ According to Deutsche Bank Securities www.dbconvertibles.com, Stefanini (2006).

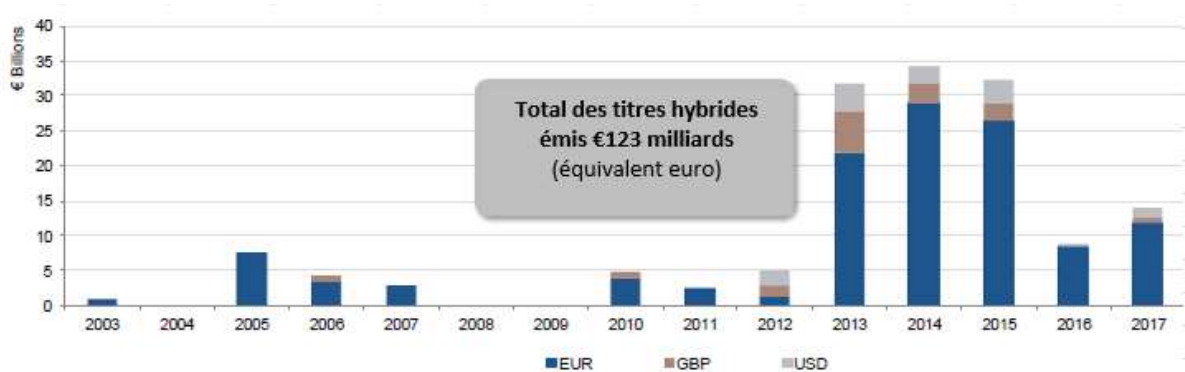
Figure 2 - CoCos emissions (2009-2015)



Source: PIMCO

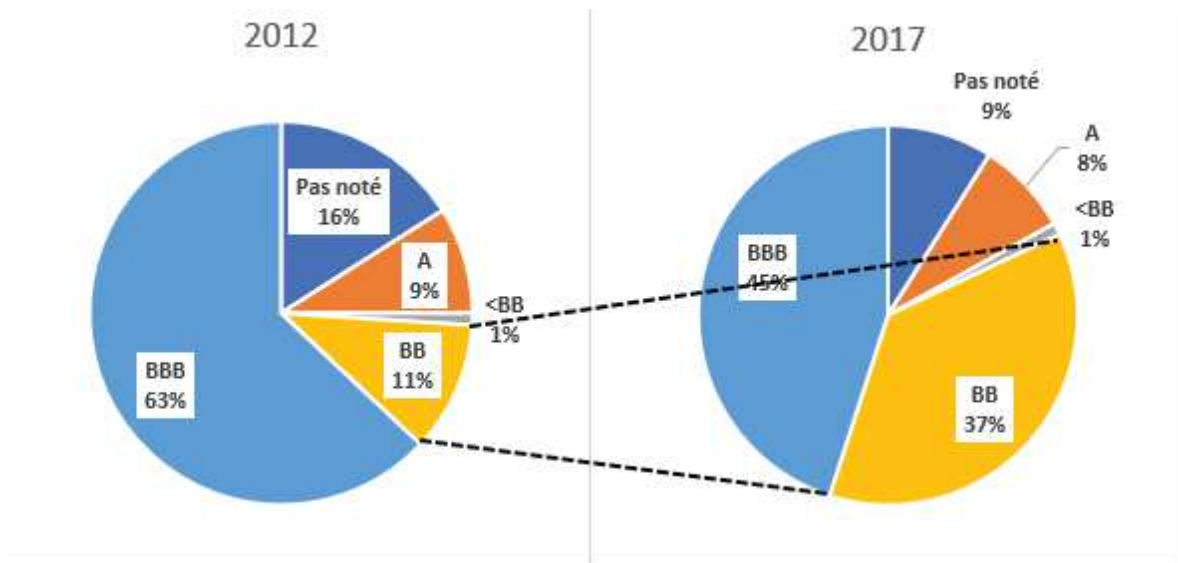
According to Dealogic (in Bolger, 2015), issues of hybrid securities by European non-financial companies amounted to €38 billion in 2014 compared with €351 million in 2008. This trend is also marked by a lack of issues around the 2008 financial crisis (see Figure 3). As Figure 4 shows, this situation was corrected by a substantial increase in issues from 2010 onwards and the improvement in the ratings given to these hybrid securities by the rating agencies.

Figure 3 – Issues of hybrid securities by companies in Europe



Source: Bloomberg, Société Générale Cross Asset Research

Figure 4 – Rating trends for European hybrid securities between 2012 and 2017



Source: Bloomberg, Société Générale Cross Asset Research

This growth is not limited to one geographical area. Based on a sample of more than 3,000 observations across 10 countries, Flores *et al.* (2016) estimate hybrid bond issues at €39.7 billion between 2005 and 2015 (see Table 1).

Table 1. Issue amounts of hybrid securities between 2005-2015

Austria	€ 923,498,246
Australia	€ 10,648,648,650
France	€ 20,479,260,331
Germany	€ 3,800,095,041
Hong Kong	€ 6,322,314,050
Luxembourg	€ 537,190,083
The Netherlands	€ 1,180,272,727
Singapore	€ 1,546,791,953
Spain	€ 2,393,946,397
Switzerland	€ 1,648,068,079
Total	€ 49,480,085,557

Source: ASX Hybrids Market update, Flores *et al.* (2016)

Notably, with the introduction of IAS 32 in Australia, accounting for hybrid securities contributed to the growth of the hybrid securities market, allowing the Australian market to triple in volume between 2005 and 2015 (MacKenzie, 2006; Carlin *et al.*, 2006).

While fixed income securities¹⁰ were the dominant form of hybrid securities until the early 2000s (Carlin *et al.*, 2006), preference shares and convertible bonds with or without reset clauses¹¹ now dominate to a large extent.

3. Classification of Hybrid Securities: A Legal and Tax Perspective

When classifying a hybrid financial instrument as either equity or debt, attention should first be paid to the underlying economic purpose. For example, if exercising the conversion right is an option offered to the holder of a convertible debt instrument, that debt should be treated as an ordinary liability since this allows the investor to participate in any increase in the value of the equity and the issuer to save cash by paying a lower coupon. If conversion is mandatory, classifying it as equity becomes possible, even if this has an adverse effect on the risk structure of the hybrid debt instrument. However, the impact of the legal classification of hybrid instruments in relation to their accounting and tax treatment is far from neutral (Barsch, 2012).

In France, for an instrument to be classified as a debt, cash or another financial asset must be delivered at maturity. On the US market, the official definitions of hybrid securities refer to the definition of convertible securities. According to the SEC, a convertible security is a financial instrument (often a bond or preferred stock) that can be converted into another type of financial instrument (typically ordinary shares of the issuing company). The major advantage for issuing companies is that the coupons or dividends are small compared to non-convertible financial instruments. The low interest rate results from the value of the conversion option offered by the issuing company. In most cases, the holder of the convertible instrument decides when to convert. In other situations, the issuing company has the right to determine when the conversion takes place. According to another view (PwC, 2017), a convertible financial instrument is a debt or equity instrument that requires or allows the investor to convert the instrument only against the issuer's own equity instruments. Some instruments are convertible only when a specific event occurs (e.g. an IPO). These hybrid securities are then defined as financial products that, by combining the characteristics of several types of transferable securities, fall between pure debt and a company's share capital. The funds generated by these hybrid securities are often referred to as quasi-equity.¹² Most national regulations recommend classifying debt securities into two sub-categories: hybrid equity securities and hybrid debt securities. This point will help us

¹⁰ Fixed income securities are perpetual securities with interest or coupon payments at regular intervals, which are only redeemable if the issuer exercises the redemption option. In other words, the perpetual nature of these securities makes them similar to title deeds.

¹¹ Included in this composite category are five types of hybrid securities: Stapled Exchangeable Preferred Securities (StEPS), Convertible Adjustable Rate Securities (CARS), Subordinated Adjustable Income Non-Refundable Tier 1 Securities (SAINTS), Preferred to Ordinary With Exchange and Reset Securities (POWERS) and Floating IPO Exchangeable Reset Securities (FLIERS) (see Carlin *et al.*, 2006).

¹² From this perspective, a convertible bond is a hybrid security as the debt security represented by the convertible bond can be converted into an equity security.

establish the main divergences and convergences in definition between the countries studied: Australia, Canada, the United States, France and the United Kingdom.

3.1 Differences in the Legal Classification of Hybrid Securities

3.1.1. Hybrid Equity Securities

Preference shares are the most popular form of equity securities because they are an instrument for managing and optimizing equity capital (*Martin et al.*, 2012). As *Bandrac et al.* (2004, p. 12) point out preference shares offer, “*on the basis of contractual freedom, new possibilities for distinguishing the relationship between capital and power in joint-stock companies*”. In particular, preference shares are interesting in terms of unlisted companies and their governance (shareholders involved in management and/or purely financial shareholders). They can take different forms, including with or without voting rights, with special rights of any kind, and on a temporary or permanent basis. They allow neither fixed interest payments nor dividend payments where no distributable profit is available.

Under IFRS, IAS 32, introduced by Commission Regulation (EC) No 2237/2004 of 29 December 2004, lays down the fundamental principles as regards their classification as liabilities or equity. “*A preference share that provides for a mandatory redemption by the issuer for a fixed or determinable amount or gives the holder the right to require the issuer to redeem the instrument at or after a particular date for a fixed or determinable amount, is a financial liability.*” An equity instrument is therefore a contract that reflects a residual interest in the company’s assets. While IAS 32 has the advantage of establishing general principles for classifying preference shares, it is nonetheless true that their legal classification depends on their nature and the jurisdiction of the country of origin of the issuing company, which is often an unlisted company.

In France, Article L. 228-11 of the Commercial Code (see Table 2) states that joint-stock companies are authorized to create preference shares “*with or without voting rights, with special rights of any kind, and on a temporary or permanent basis*” with the abolition of non-voting preference shares and investment certificates and that “*the summa divisio of the equity securities resides in the ordinary shares and preference shares*” (Bonneau 2004, p. 151).

Table 2. Summary table of the main hybrid securities: legal and tax treatment

Securities	Definition			Legal treatment	Tax treatment
	French Commercial Code	Financial and Monetary Code	Others		
Preference Shares	Article L.228-11		Article 31 prescription n°2004-604 2004, 24 June	Shares benefiting from "special rights", "of any kind",	No particularity with respect to the common shares
Redeemable Shares	Article L.228-36 et L.228-37	Articles L.211-1, II, 2 et L213-32	Law n°83-1 1983, 3 January	Indefinite term debt securities (repayable upon liquidation of the company) with a participation clause	Their remuneration is an expense for the year when the remuneration is paid.
Subordinated Securities	Article L228-97		Law n° 85-1321 1985, 14 December	Debt securities representing stable and permanent capital	Their remuneration is assimilated to the payment of interest on an ordinary debt. Tax deductible.
Redeemable Loans		L.313-13 to L.313-20	Law n°78-741 1978, 13 July Law n°2005-882 2005, 2 August	Intermediate means of financing between the long-term loan and the equity investment.	Amounts paid in remuneration of equity loans are tax-deductible for the issuing company.
OCA - Convertible bonds in shares	L228-92		Decree n°53-811 1953, 3 September	OCAs are debts until they are converted.	Their compensation is recorded as an expense for the year using the accrual method. Tax-deductible.
ORA - Bonds reimbursable in shares		Article L228-91		ORAs are qualified as deferred equity securities	ORAs are treated as bonds until redemption, then as shares after conversion.
Warrants	L228-91		Law 1983, 3 January Law 1985, 14 December	Immediately negotiable warrant entitling the holder to subscribe for a capital increase of the issuing company	The warrants do not receive any remuneration. They are not subject to any taxation.
OBSA - Bonds with warrants	L228-91		Law n°83-1 – 1983, 3 January	OBSAs are qualified as potential equity securities.	No fiscal particularities.
OE - Exchangeable bonds	L228-91			OE's include an option to exchange them for equity securities (shares) of the issuing company.	No fiscal particularities.

In the United States, there are four categories of equity securities:

- preferred stock classified as debt in accordance with the application of standard ASC 480;
- redeemable preferred stock for cash or other assets;
- convertible preferred stock;
- perpetual preferred stock or redeemable preferred stock, depending on the choice of the issuer.

In the United Kingdom, the terminology for equity securities is derived from common law. The Companies Act 2006 (CA) established a highly formalized approach to distinguish share capital (equity) from borrowed capital (debt). Borrowed capital, in the form of debt, must be based purely on contractual agreements and is not regarded as granting access to shareholders' rights unless expressly mentioned. However, the distinction between debt and equity has not prevented the UK legislator from allowing issuers a great deal of leeway in creating preference shares – classified as hybrid instruments – due to the fact that party autonomy and flexibility is recognized as one of the pillars of corporate governance (Davies and Rickford, 2008). Three forms of preference shares have been created and used in particular by non-financial companies:

- preference shares;
- redeemable preference shares;
- preference shares with preferential subscription rights.

In Canada, preferred stocks are hybrid securities with either debt or equity characteristics, while convertible bonds are legally debt securities with some equity characteristics. For example, preferred stock represents a title deed with no maturity date. However, like a debt instrument, non-voting preferred stock has a fixed yield that is determined at the time of issue. A significant proportion of preferred stock in the Canadian market is issued by financial institutions.

Table 3 presents the characteristics of the four main types of preferred stock offered by Canadian companies.

Table 3. Preferred Stocks – Canadian market

Perpetual Preferred Stocks	No maturity date Fixed dividends Possibility only to reimburse them at the request of the issuing company
Preferred Stocks with Floating Rates	The dividend rate is indexed to a reference rate
Preferred Stocks with Reset Rates	Fixed dividends until reset date In the absence of a request for redemption by the issuing company, the shareholder may either update the dividend rate or exchange his shares for preference shares with a floating rate
Retractable Preferred Stocks (redeemable or convertible)¹³	The shareholder has the right to request the exchange of his shares on a specific date. This exchange may be for cash or for common shares

Source: Autors

In Australia, there is no specific legal framework for the different categories of equity securities, although three broad categories of preference shares can be identified (Carlin et al., 2008):

- preference shares issued as part of a business combination;
- preference shares issued following a reverse acquisition;
- exchangeable preference shares issued following a reverse acquisition.

3.1.2. Debt Securities Treated as Equity

Non-dilutive hybrid securities may also be referred to as debt securities treated as equity – similar to equity securities but without being dilutive. In France, they are defined as financial instruments according to the following four criteria:

- **Subordination:** Should the company go into liquidation, these securities are repaid only after other debts but before equity.
- **Maturity:** Very long (at least 25 years) or even perpetual.
- **Commitment:** Should the security be repaid, the issuing company contractually undertakes to replace this issue by an issue of the same type open to all holders of hybrid securities.

¹³ This type of preferred stock represents 58.3% of the total preferred stock market in Canada. The total value of this market is \$14 billion (according to the Bank of Montreal, 2012).

- **Remuneration:** The coupon is fixed for a certain period, then when the scheduled call occurs at the time the bond is issued,¹⁴ a step-up clause makes the payment of the coupons variable or progressive.¹⁵

Various French laws have contributed to the emergence of several types of debt securities treated as equity that are also found in the other countries studied. The first of these to have been created by the French law of 3 January 1983 is the **Redeemable Shares**, which appeared for the first time in May 1983 when the Saint Gobain group was raising funds (Cordier, 1989, p. 148). Legally defined by Article L. 228-36 of the French Commercial Code, **Redeemable Shares** are tradable securities whose remuneration comprises a fixed and a variable part – calculated based on factors relating to the company’s operations or results – and linked to the nominal value of the security.¹⁶ The law restricts their issuance to certain categories of legal entities,¹⁷ in particular public limited companies (*sociétés anonymes*, or SAs) and limited liability companies (*sociétés à responsabilité limitée*, or SARLs) incorporated as cooperative companies. **Redeemable Shares** are only redeemable on the liquidation of the company, which allows the issuing company to have funds at its disposal that are comparable to equity securities (Briatte, 2017, p. 435). Because of their incentive linked to the issuer’s results or activity, holders of **Redeemable Shares** may obtain corporate documents under the same conditions as shareholders (Article L. 228-37-5 of the Commercial Code).

Subordinated notes¹⁸ are a second form of debt securities that are treated as equity. Should the issuer declare bankruptcy, repaying subordinated notes is not given priority. They are repaid just before repaying holders of participating securities or shares. In return for this illiquidity risk, the remuneration from subordinated notes is higher than that of bondholders. These debt securities provide stable and permanent capital. They provide an opportunity for issuers to strengthen their equity at a lower cost than issuing equity securities and without any dilutive effect for controlling shareholders (Nizard, 2006, p. 47). The subordination creates a hierarchy in the order in which creditors are ranked, as defined in Article L. 228-97 of the Commercial Code. There is thus a distinction between **deeply subordinated notes (DSNs)** and subordinated notes. The French Financial Security Act of 1 August 2003¹⁹ amended Article L. 228-97 of the Commercial Code, allowing **DSNs** to be converted into equity securities (Briatte, 2017,

¹⁴ The call corresponding to an option to buy, i.e. a subscription warrant: a security that allows the holder to subscribe, during a given period and for a predetermined amount and at a predetermined price, to another financial security.

¹⁵ These coupons may be deferred depending on the issue agreement in the event of non-payment of dividends.

¹⁶ Article 242-1 of Decree 83-363 of 2 May 1983 specifies that the basis for calculating the variable portion may not exceed 40% of the nominal value of the security.

¹⁷ Public-sector joint-stock companies, cooperative public limited companies, public-sector industrial and commercial establishments, mutual or cooperative banks, etc.

¹⁸ The term “subordination” comes from the “subordinated debts” or “subordinated loans” that are very widespread in financial engineering in the English-speaking world (Faugerolas, 1991, p. 84).

¹⁹ French Law 2003-706 of 1 August 2003 on financial security in relation to company law.

p. 437). Another variant, **perpetual subordinated notes (PSNs)**, sometimes called perpetual bonds (Cozian and Viandier, 1987), are similar to equity securities in terms of repayment, which only occurs when the company is liquidated (after all other creditors have been paid) and in terms of remuneration. With regard to remuneration, a subordination clause may make the payment of interest dependent on the existence of a distributable profit and the distribution of dividends to shareholders (Briatte, 2017, p. 438). **Redeemable subordinated notes (RSNs)** appeared on the French market in 1988. Unlike PSNs, RSNs have a known maturity but remain subordinated: their holders are remunerated after all others in the event of the issuer's bankruptcy. The advantage for the issuing companies is that the interest on their RSNs is tax deductible. The banks are the main issuers. For example, in December 2010, Crédit Agricole issued more than 550 million RSNs maturing in 2020 at a fixed rate (4.05%). They were priced at 90%, giving a real yield of 4.5%. The bank reserved the option to buy back the securities on the stock market at any time. The bank did redeem these securities early at their nominal value on 30 June 2015. What these subordinated securities have in common is that the remuneration is always the interest rate, which is higher than that of the equivalent conventional government or corporate bonds. As Briatte (2017, p. 437) points out, this type of security was designed primarily to improve banks' prudential ratios and consolidate their capital base.

Lastly, **Redeemable Loans**²⁰ are another way for a financial or non-financial company to consolidate its equity capital. Created in the 1980s by the French government to strengthen the equity of recently nationalized companies without selling voting rights (Vernimmen, 2018, p. 548), this type of security is similar to DSNs. They are the lowest ranking type of subordinated debt whose remuneration is composed of a fixed part and (possibly) a variable part linked to the issuer's operational performance.²¹ They are treated as equity by law:²² *"With regard to the assessment of the financial situation of the companies that benefit from them, they are treated as equity"*. This treatment has only a financial scope since, legally, participating loans constitute a debt owed by the company (Madignier, 1983, p. 88). Classified as quasi-equity, they improve the financial structure of a company and were often used during the 2008 financial crisis to support government loans to companies in difficulty.

In the United Kingdom, participating debt instruments and silent partnerships are hybrid debt instruments that are treated as equity, but they are not widely used compared with preference shares. The need to record hybrid securities as debt on the balance sheet from the perspective of English company law is rare. The prerequisite for placing these securities under the Equity heading is the company's ability to buy back the committed share capital. For accounting purposes in particular, the buyback usually takes place through the exercise of a call option held by the issuer (Barden *et*

²⁰ Created by Law 78-741 of 13 July 1978 on the channeling of savings to the financing of companies. It is currently governed by Articles L. 313-13 to L. 313-20 of the French Monetary and Financial Code.

²¹ It may be accompanied by a remuneration calculated based on the company's results.

²² Article 25 of French Law 78-741 of 13 July 1978 on the channeling of savings to the financing of companies.

al., 2007; Sinclair and Christomo, 2008). The use of increasing but moderate interest rates (interest step-up securities) is intended to secure investors' interests. Here again, the rights of investors in hybrid securities are subject to the legal capital barrier: the buyback, at least in the case of listed companies, can only be financed by the profits or proceeds from a new share issue (see UK Companies Act Section 687, Section 709 and Section 714). Occasionally, buyback options are accompanied by mandatory conversion clauses, allowing conversion into ordinary shares in the event of financial difficulties.

In Australia, following the work of Carlin *et al.* (2016), there are six forms of hybrid debt securities that are treated as equity:

- perpetual step-up securities that pay coupons that increase when the issuer chooses not to repay the principal on a certain date;²³
- securities with stock options issued to cover fundraising costs;
- loans financing a loan funded share plan as part of employee compensation;
- securities with stock options issued as payment for services provided by an advisor/consultant;
- securities with stock options issued as part of employee or director compensation;
- securities with stock options issued free of charge.

3.1.3 *Debt Securities Treated as Equity Securities*

In France, the most widely known form of debt securities treated as equity securities are **bonds convertible into shares** (*obligations convertibles en actions*, or **OCAs**). This is a company-issued bond that entitles its holder to exchange it for shares during a specified period and under certain conditions. Historically, the first piece of legislation creating OCA bonds dates back to the decree of 3 September 1953. From a legal standpoint, **OCAs** are debts until such time as they are converted. They were also covered by the law of 24 July 1966, which created the legal framework for **bonds exchangeable for shares** (*obligations échangeables convertibles en actions*, or **OEAs**). At maturity, either the price of the underlying stock has increased and investors request repayment in shares, with both the debt and the underlying shares disappearing from the balance sheet, or investors do not request the exchange and the debt is repaid. According to agency theory (Mayers, 1998), OCAs and OEAs are a means of resolving conflicts between shareholders and creditors. Furthermore, issuing them avoids a capital increase as defined by signal theory (Stein, 1992).

²³ Here, the increase in coupon interest can be seen as a feature of unmatured debt.

French Law 83-1 of 3 January 1983 on the development of investments and the protection of savings introduced another category: **bonds with share subscription warrants** (*obligations à bons de souscription d'actions*, or **OBSAs**). These debt securities, because they are similar to a call option, can be seen as a means of resolving shareholder/creditor/manager conflicts. In particular, **share subscription warrants** (*bons de souscription d'actions*, or **BSAs**) are detachable from bonds and can be immediately traded. They grant the right to subscribe to a capital increase offered by the issuing company during a specific period and can be listed on the stock market. Investors receive neither dividends nor remuneration. **OBSAs** are potentially equity securities because access to capital is optional: the investor can choose whether to be repaid in cash or by being granted access to the capital. This provides an immediate means of financing for the issuer; however, there is a potential risk of dilution for existing shareholders. Lastly, **bonds redeemable in shares** (*obligations remboursables en actions*, or **ORAs**) are debt securities granting access to the share capital as they are repaid by allocating shares. Rating agencies therefore treat them as equity. For tax purposes, **ORAs** are considered as bonds until they are repaid, then subsequently as shares.²⁴

All these categories of complex debt securities were subsequently included in French Law 85-1321 of 14 December 1985, which opened up the issuing of these securities²⁵ (Briatte, 2017, p. 440). Lastly, Order 2004-604 of 24 June 2004 introduced the principle of freedom of issue and standardized the legal framework for these complex securities. As Briatte (2017, p. 441) points out, the legislator grants a great deal of freedom with regard to these products, except for converting an equity security into a debt security (Article L. 228-91-5 of the French Commercial Code).

In Australia, the work of Carlin *et al.* (2016) identifies five types of debt securities treated as equity: (1) convertible notes, bonds or subordinated debt with or without a reset clause; (2) securities convertible into shares with an adjustable dividend rate, known as Convertible Adjustable Rate Securities (CARES); (3) a loan convertible into shares that is held by a significant investor; (4) a convertible loan or credit facility in the case of fundraising; (5) preference shares issued upon converting convertible bonds of financial companies. In particular, convertible securities with reset clauses (reset convertible preference shares/notes) are popular with issuers. They allow the issuer to exercise an option to repay the principal on a predetermined date or to modify the terms of the issue. If the holder does not accept the changes, the issuer decides whether the securities will be exchanged by converting them into ordinary shares or by paying cash. The holder can choose whether to convert them into ordinary shares or receive cash at maturity.

²⁴ "ORAs are not a particularly attractive product on the financial markets. Rather, they are used in very specific arrangements for unlisted companies, often with a fiscal or legal concern" (Vernimmen, 2018, p. 549).

²⁵ This Law also provided the ability to create stand-alone warrants.

In the United Kingdom, there are three main forms of hybrid debt securities treated as equity under common law in England and Wales: (1) convertible bonds; (2) convertible loan notes; (3) exchangeable bonds.

In Canada, convertible debentures are the most widely traded deb securities treated as equity. They are debt securities (in relation to their scheduled interest payments) with equity characteristics linked to specific repayment terms (e.g. extended or perpetual maturity dates, the right to redeem the securities at the issuer's request).²⁶

In the United States, the Securities & Exchange Commission (SEC)²⁷ considers a convertible debt security to be a financial instrument, i.e. a bond or preferred stock, that can be converted into another financial instrument (e.g. the issuing company's ordinary shares). In most cases, the holder of this hybrid security decides when to convert it. More rarely, however, the issuing company has the right to decide the conditions under which the hybrid security is converted.

3.2 Differences in Tax Treatment of Hybrid Securities

In France, hybrid securities are excluded from equity because of their legal nature (French Accounting Standards Authority (ANC) Regulation 2014-03 of 5 June 2014 amended by Regulation 2015-06 of 9 November 2015 and the French General Tax Code). However, they may be recorded as "quasi-equity" if certain conditions are met:

- if there is no maturity date or if repayment is under the control of the issuer (issuer call);
- if repayment is made through another equity instrument (bonds redeemable in shares).

In other cases, these securities are classified as debt, even if the interest review clauses (step-ups) constitute a mandatory repayment clause. For accounting and tax purposes, interest is an expense for the financial year and is recognized as such even if payment is deferred and the payment date is unknown. The principles of accrual accounting, in which accrued interest is recorded, are therefore applied.

In Australia, hybrid convertible securities (shares or bonds) treated as equity for accounting purposes were treated as debt for tax purposes (Mackenzie 2006) until the early 2000s. Following a series of recommendations from the Ralph Review, the new Business Tax System (Debt and Equity) Bill 2001 introduced a new tax approach to classifying convertible securities as debt or equity. The introduction of this law marked the start of the virtual disappearance of income securities and the boom in preference shares and convertible bonds (Fenech et al., 2016). For a hybrid security to be

²⁶ The value of the Canadian convertible debenture market now exceeds €9.15 million (C\$14 billion).

²⁷ The SEC requires domestic companies to present their financial statements under US GAAP. Foreign companies whose financial instruments are traded on one of the stock exchanges in the United States are allowed (but not required) to use IFRS to present their consolidated financial statements.

classified as debt for tax purposes, both a financing system and a financing mechanism are required. The financing system must fall within the scope of Section 995-1 of the Income Tax Assessment Act 1997 (hereinafter ITAA 1997). The financing mechanism must include all obligations assumed by the issuer and involve a financial benefit (e.g. coupon payments) that must be independent of economic performance. Furthermore, the hybrid security must have a maturity of less than 10 years and the option to convert into shares (or repay the principal of the security) must be the sole responsibility of the holder (or of the issuer). A hybrid security is classified as equity for tax purposes if it passes the equity test set forth in Subdivision 974-C of the ITAA 1997. If it results in the payment of a financial return dependent on the economic performance of the company, it is considered a participating security and therefore an equity tool. Furthermore, if the issuer retains control over converting the security, then the security passes the equity test. If the hybrid security is issued in perpetuity (perpetual securities and perpetual step-up securities), it is considered to have passed both the debt and equity tests. In these cases, the tax rules stipulate that the security is presumed to be a debt.

In the United Kingdom, the tax system makes a clear distinction between the treatment of debt and equity. Interest payments on debt are tax deductible for debtors and taxable for creditors. The debtor can deduct tax on interest payments at the basic rate of tax on savings income, whereas no tax can be deducted on dividends (Penney, 2000). More generally, under the loan relationship rules, the tax treatment for debt is consistent with the accounting treatment for debt. However, dividends and other types of distributions are not tax deductible. The qualified distribution recipient benefits from a tax credit equal to 1/9th of the amount of the distribution. If the recipient is a UK resident company, the distribution is in most cases deductible from corporation tax (see Section 1285 of the Corporation Tax Act 2009 and Finance Act 2015).²⁸

The starting point for the distinction between debt and equity for tax purposes is the legal form of the financial instrument in question. However, its classification may be completely reversed given its accounting treatment or its underlying economic characteristics.²⁹ Significantly, English courts and legislators are much more likely to reclassify debt as equity rather than the other way around (Penney, 2000). From a tax perspective, the most important aspect of classifying a hybrid financial instrument as debt or equity is the nature of the return (Southern, 2000). The key question here is whether it is interest that is tax deductible for the issuer or a distribution that is non-tax deductible for the issuer but tax exempt for the investor. In this regard, UK tax law has a very narrow concept of what is considered a tax-deductible interest payment. As there is no statutory definition, UK courts have defined interest or coupon payments (e.g. on bonds) as remuneration for the time during which the money is used (Southern,

²⁸ Here, the distinction between income and capital gains is important. A capital gain on a sale of shares in another company is exempt from tax if the strictest criteria for exemption from substantial shareholding, contained in Section 7AC of the Tax Chargeable Gains Act (TCGA) 1992, are all met.

²⁹ It is therefore possible that shareholders may be treated as creditors for the purposes of the loan relationship rules and that interest payments on the debentures may qualify as distributions.

2017). This means that they are essentially calculated in relation to the time value of a certain amount of borrowed money. The fact that their payment is contingent on the borrower's profitability does not prevent them from being classified as interest (Southern, 2000). Interest payable to the investor is exempt from tax if the interest payment is cumulative (because the borrower has sufficient profits to pay it). However, an interest payment related to coupons that is not cumulative means that it is not tax deductible.

The tax treatment of preference shares depends on their legal form (reference to company law). Consequently, the tax treatment of preference shares or redeemable preference shares does not differ from that of ordinary shares. Specifically, dividends from these shares are exempt from corporation tax and the substantial shareholding exemption applies to the sale of these same shares, so they are also exempt from capital gains tax. As an exception, preference shares that are designed in such a way that they yield a recurring and identical return comparable to interest are treated for tax purposes as part of a creditor-debtor relationship, with regard to applying the rules on "shares representing liabilities" (Southern, 2017). It is important to note, however, that the scope of this anti-avoidance tax legislation is relatively limited. It only covers quasi-loans, which are treated as financial liabilities rather than equity and for which providing a tax benefit must be one of the main objectives of such an investment.

With respect to convertible debt securities, classifying the debt does not affect its tax treatment. Under the UK tax system, a creditor subordinated to the amount borrowed, which is repaid after other creditors have repaid it, remains a creditor and is taxed accordingly (Tiley, 2008). This means that for reasons of tax alignment, convertible bonds are split and segregated into two parts: a debt portion and an equity portion. The debt portion is taxed as if there were an ordinary loan relationship, so that the interest (coupon) payments on the bond are tax deductible. There is an exception: where the convertible bond is not listed on a recognized stock exchange and is not issued under conditions that are reasonably comparable to the conditions of issue of bonds listed on the same stock exchanges, interest payments are treated as a distribution. The equity portion, i.e. the right to convert the bond into shares, is taxed as a derivative contract independent of the debt portion (CTA 2009, Section 585).

Furthermore, the EU implemented stricter regulatory capital requirements for banks (CRD IV Directive) and insurers (Solvency II) in response to the 2008 financial crisis. According to CRD IV, which came into force on 1 January 2014, banks' risk-weighted assets must comprise at least 4.5% of Common Equity Tier 1 (CT1) capital and 1.5% of Additional Tier 1 (AT1) capital. However, interest payments related to AT1 capital instruments made by banks continue to be tax exempt. In addition, neither converting the AT1 capital instruments into the banks' ordinary shares nor reducing the principal amount of the AT1 capital instruments can trigger their taxation for corporation tax

purposes.³⁰ Lastly, it should be noted that issuing AT1 capital instruments continues to be exempt from taxes on capital, stamp duties and registration fees under CRD IV.

With cross-border transactions, the use of hybrid financial instruments may lead to a trade-off between different tax systems applicable to the issuer and the investor. In the case of a UK resident issuer and a non-UK resident investor, there may be a tax advantage to be gained by using a hybrid instrument classified as debt in the UK and as equity in the investor's home jurisdiction. In relation to this difference between the two jurisdictions, the return on the financial instrument will very often be tax deductible in the UK and considered tax exempt for the investor.³¹ If, on the other hand, the recipient of interest payments on a bond redeemable in shares is a UK resident company, that interest is reclassified as a distribution if the payment exceeds a commercially reasonable return. This means that, in relation to corporation tax, classifying the return on certain hybrid debt instruments as a distribution applies, from the outset, to cross-border transactions (Gosh, 2008).

4. Overview of the Different Accounting Frameworks for Hybrid Securities

In this section, we provide a comparison of Australian, US, UK, French and Canadian accounting standards addressing the issue of the accounting recognition of hybrid instruments. First, we look at how they classify hybrid securities as debt or equity and how they use fair value to measure compound financial instruments under the IFRS framework. Secondly, we analyze how issuers transpose into their financial statements the principles set out in their national accounting standards and in IFRS..

4.1 Australia

4.1.1 Accounting for Hybrid Debt Securities

Since 2013, the accounting treatment of hybrid securities as debt or equity has been governed by the rules of Australian standards AASB 132 *Financial Instruments: Disclosure and Presentation* and AASB 139 *Financial Instruments: Recognition and Measurement*, which are the Australian versions of IAS 32 and IAS 39 respectively.³² From 1 January 2018, AASB 9 *Financial Instruments* replaces AASB 132 and AASB 139, but the accounting treatment of the main categories of hybrid securities, in particular perpetual step-up or convertible securities, remains unchanged (RSM, 2018).

³⁰ Additional Tier One (AT1) Contingent Convertible Bonds are a special case. While a cumulative interest payment (coupon) will generally be tax deductible, a non-cumulative payment could be a distribution because of its dependence on income. However, the UK tax authorities have ruled on this special case and rejected the idea of a dependence on income. The tax exemption of coupon interest is therefore allowed where its payment is delayed until the bank is wound up (Hannam, 2008).

³¹ The Finance Act 2005 contains a specific provision which states that tax exemption may be denied if the main purpose of using these instruments is to obtain the UK tax advantage.

³² More specifically, IAS 39 *Financial Instruments: Recognition and Measurement*.

The example of a convertible bond is used here to illustrate the logic of the accounting treatment of hybrid securities that qualify as compound financial instruments. The term compound refers to the separate accounting treatment for the debt component and the conversion option. Applying AASB 132 and AASB 139 (and therefore by extension IAS 32 and IAS 39) means that the debt component is initially recognized and measured at fair value. It is then amortized over its lifetime using the effective interest rate method. The conversion option can be treated as equity if it satisfied the “**fixed for fixed**” test, or as a financial liability if it does not. To be classified as an equity instrument, the conversion option must contain a fixed amount of cash exchanged for a fixed number of shares. However, if the conversion option does not satisfy the “**fixed for fixed**” test, it will be classified as a financial liability. Being classified as an equity instrument for a convertible debt (or preference share) means that the value of the option is determined at the beginning of its lifetime and will never be revalued at a later date. This value is calculated as the residual difference between the proceeds received from the convertible debt and the fair value of the debt component.

However, performing the “**fixed for fixed**” test can be complex and can lead to interpretations that are sometimes subjective. Any convertible debt will often have a conversion ratio or similar characteristic that determines how the number of equity instruments resulting from conversion should be calculated. For example, if the number of equity instruments to be issued is fixed relative to the amount of cash, the conversion option can be treated as an equity instrument.

By contrast, other conversion mechanisms would clearly fail the “**fixed for fixed**” test. For example, a conversion option that entitles the holder to a variable number of shares equal to a fixed value in euros will fail the test, since the number of shares to be issued will vary inversely with the entity’s share price. Similarly, a mechanism under which the number of shares is variable but which is subject to a floor and/or a cap on the number of shares to be issued will fail the test.

Furthermore, any mechanism offering a cash payment alternative, where cash or an instrument other than the share can be issued to pay for the conversion option, will not be considered from an equity perspective. This applies regardless of whether the option to issue cash is held by the investor or the issuer. However, mechanisms that change the number of shares to be issued may not fail the “**fixed for fixed**” test if the rights of bondholders are maintained in relation to those of existing shareholders. An example is conversion ratios that involve an increase in the number of shares to be issued in the event of a share split or the issue of bonus shares.

As regards the debt component, it must initially be recognized at fair value, which is very often different from its nominal value. It must be valued based on the discounting of contractual cash flows because of the interest rate that would apply for a non-convertible debt with a similar profile. Accordingly, determining the value of the debt requires a specific interpretation, particularly if the convertible debt is issued by start-ups, which may not have ready access to comparable “vanilla” debt instruments. The approach adopted would be to apply a discount rate to the debt portion, calculated

based on its nominal value in most cases. This discount rate would be applied over the entire maturity of the loan using the effective interest rate method so that the book value and the nominal value would be equal on the date the principal is repaid. The undiscounted portion of the debt would be recognized under financial expenses as a notional interest expense.

If the “**fixed for fixed**” test is not satisfied, the conversion option must be treated as a financial liability. Its value at the inception of the debt is determined in the same way as a conversion option treated as an equity instrument but will nevertheless be recorded as part of the entity’s financial liability. According to AASB 139, the conversion option meets the definition of a derivative and should be measured at fair value through profit and loss. In other words, the fair value of the option must be determined at each reporting date, with a gain or loss recognized in the income statement. At the date the convertible debt is converted, the debt component is derecognized as a financial liability to be recognized instead as equity. If the conversion option had not been treated as a financial liability, and therefore measured at fair value, it would have had to be transferred to equity without any conversion-related gain or loss being recognized in the balance sheet. If the conversion option had previously been recognized as an equity instrument, it is not remeasured but may be reallocated at that time. An example would be an amount previously recognized in a separate convertible instruments reserve but which may be transferred to issued share capital.

When the convertible debt is issued in a foreign currency different to the issuer’s operating currency, the conversion option does not meet the definition of an equity instrument because the “**fixed for fixed**” test cannot be satisfied. Even if the foreign currency amount payable is fixed within the country in which the issue takes place, exchange rate fluctuations will result in a variable amount denominated in the issuer’s currency. In this case, the option to convert the convertible debt into a foreign currency is treated as a derivative financial liability, recognized at fair value through profit and loss.

Other debt instruments do not provide a conversion option but instead automatically convert into shares at a predetermined future date. In these cases, the accounting treatment depends on the terms of the conversion and whether an obligation to pay interest exists. If the debt, converted into a fixed quantity of shares, does not generate interest, then interest may be treated as an equity item at the inception of the debt (since there is no contractual obligation for the issuer to deliver cash). If interest is paid in return, it must be recognized as a financial liability at its present value. The principal balance is treated as an equity instrument from the beginning of the life of the debt. If the convertible debt is converted into a variable number of shares, the “**fixed for fixed**” test is not satisfied, and the entire security is recognized as a financial liability.

Other specific cases related to the treatment of convertible debt may arise. Firstly, a predefined conversion ratio can be changed when a particular milestone has been reached, such as exceeding a certain share price. The conversion ratio can then be

changed provided that the company issues shares at lower prices. These clauses are outside the scope of the rules associated with the “**fixed for fixed**” test of AASB 132. The conversion option is therefore treated here as a derivative financial liability. Secondly, certain debts may become convertible if and only if specific future events occur. For example, a debt may only become convertible at the time the shares are admitted to trading on a regulated stock exchange. Such instruments would still have to be treated as convertible debt, and the conversion option could have a value that would then be recognized as a derivative financial instrument or an equity instrument depending on the nature of the conversion option.

Other debt securities treated as equity securities have terms where the bond issuer has the right to determine whether the debt securities will be converted into shares. Several forms of these securities linked to an “**issuer call option**” are set out in Panel A of Table 4. If they grant additional rights to the issuer, their conversion option constitutes a financial asset for the issuer and is therefore recognized at fair value through profit and loss.

4.1.2 Example of Accounting for Hybrid Equity and Debt Securities

Table 4 identifies different accounting treatment methods used by Australian companies for the three main categories of hybrid securities mentioned above (equity securities, debt securities treated as equity or debt securities treated as equity securities).

While overall the debt/equity classification and fair value accounting framework complies with IFRS principles (IAS 32 and IAS 39), information on the potential dilutive effects of debt securities with a conversion option appears to be inadequate.

Table 4 – Recognition and Measurement by Australian Companies: Examples

Name of hybrid financial instrument	Companies studied	Accounting treatment of hybrid financial instrument	Information contained in the financial statements	Comments
<i>Panel A: Hybrid Equity Securities</i>				
Preference shares issued as part of a business combination	DATETIX GROUP LTD (2016 + 2017 Annual Reports)	The preference shares issued are the consideration for the acquisition. They are converted into ordinary shares when the share price exceeds a predetermined level and economic performance thresholds are reached. The credit used to finance the transaction is drawn from capital reserves.	Additional notes on: - settlement date; - rights by class of shares concerned; - vesting period. Publication of the methods and parameters used to value the shares.	- No subsequent revaluation of shares since they form part of equity. - No subsequent information is provided on the accuracy of the initial fair value calculations of the shares.
Preference shares issued following a reverse acquisition (ref. IAS 22 and IFRS 3)	ZYBER HOLDINGS LTD (2016 + 2017 Annual Reports and 2015 Prospectus)	The preference shares issued are the consideration for the reverse acquisition. No separate entry for the rights issue attached to the shares (valued at zero).	Information relating to the conditions of issue published in the prospectus. Additional notes on the shares issued and the performance conditions to be met in the report.	Confusing comments on the accounting treatment. The report states that the shares are valued at zero, but another section states that the fair value of the shares is a consideration for the transaction in the purchase price.
Exchangeable shares issued following a reverse acquisition (ref. IFRS 3)	ZYBER HOLDINGS LTD (Annual Report 2016, 2017 & Prospectus 2015)	Preferred shares are issued by a subsidiary to the benefit of the previous shareholders of the legal acquirer in the context of the reverse acquisition. Equity-settled share-based payments (included in reserves)	Publication in the prospectus. Additional notes on the shares issued and on the terms of the exchange.	These shares normally form part of minority interests. They should appear in the reserves in case the shares can be converted into shares of the holding company at any time.

Name of hybrid financial instrument	Companies studied	Accounting treatment of hybrid financial instrument	Information contained in the financial statements	Comments
<i>Panel B: Debt Securities equivalent to Equity</i>				
Bills, bonds, convertible subordinated debt	IAG LTD (Annual Report 2016, 2017)	Debt items recognized as financial liabilities in the balance sheet, initially measured at fair value and subsequently at amortized cost.	Additional notes providing information on the bills, bonds, or debt concerned: for example, conditions and characteristics of conversion.	Information on potential dilutive effects limited to the use of the "as if" conversion would have been done at the diluted EPS level ³³ .
Loan convertible into shares held by a significant investor	ADAVALE RESOURCES LTD (Annual Report 2016, 2017)	Decomposed into a debt component and another equity component. The debt component is calculated on the basis of a notional interest rate of 30%. Accrued interest in the income statement is based on the notional interest.	Notes to the financial statements detailing the accrued interest rate, the maximum period during which the loan is repaid, whether it is secured or unsecured, and the fixed number of convertible shares.	<ul style="list-style-type: none"> - Parameters used to value the debt and equity components are not based on observable data. - Information on potential dilutive effects limited to the "as if" method of conversion would have been used to obtain diluted EPS; - Change in the value of the equity component during the year not disclosed.
Securities convertible into shares with an adjustable dividend rate (<i>CARES: Convertible Adjustable Rate Securities</i>)	RAMSAY HEALTH CARE (Annual Report 2016, 2017)	Recorded as equity as non-cumulative preferred shares. Distributions are classified as dividends.	Additional notes indicating the characteristics of the hybrid instrument such as the dividend rate obtained by the formula: market rate + margin.	<ul style="list-style-type: none"> - EPS is shown in the report after payment of dividends on these securities; - Disclosure of potential dilutive effects at the diluted level "as if" the conversion into shares would have been made - No information on changes in the value of the instrument during the year.
Loan or convertible credit facility in case of fund raising	ADAVALE RESOURCES LTD (Annual Report 2016, 2017)	No separate accounting of the loan or borrowing. Information on the number of shares issued at the time the proceeds are received.	Notes to the financial statements indicating the amount borrowed, the term and the rate of disbursement of the loan or credit facility.	<ul style="list-style-type: none"> - No dilution in calculated EPS since the loan or credit facility is not considered dilutive; - No detailed information about the loan or credit facility.

³³ Earnings per Share (EPS)

Name of hybrid financial instrument	Companies studied	Accounting treatment of hybrid financial instrument	Information contained in the financial statements	Comments
<i>Panel B: Debt Securities equivalent to Equity (case of CoCos from financial entities)</i>				
Preferred shares issued upon conversion of convertible bonds of financial companies	WESTPAC (Annual Report 2016, 2017) NATIONAL AUSTRALIA BANK (Annual Report 2016, 2017)	Recognized as a liability in the balance sheet and initially measured at fair value and subsequently at amortized cost. Dividends paid to bearer shareholders are treated as interest.	Additional notes indicating certain characteristics such as the triggering of the conversion, the dividend attached (cum dividend), level of interest rate.	<ul style="list-style-type: none"> - Part of the Tier 1 capital of the banks. Banks may (or may not) disclose fair value and amortized cost information. - Disclosure of potential dilutive effects limited to the "as if" method of conversion would have been used to obtain diluted EPS (if not converted, at fair value).

Name of hybrid financial instrument	Companies studied	Accounting treatment of hybrid financial instrument	Information contained in the financial statements	Comments
<i>Panel C: Debt Securities equivalent to Share Capital</i>				
Stock options issued to cover fund raising expenses	DATETIX GROUP LTD (Annual report 2016, 2017)	These options are valued at fair value, contributing to the reduction in capital in ordinary shares and the increase in equity reserves.	Publication of the cost of the share issue as well as the method and parameters used to value the shares (including assumptions as to the option exercise date)	<ul style="list-style-type: none"> - Information on potential dilutive effects on diluted EPS and exercise price. - No information on changes in value for the year.
Loan financed share plan as part of employee compensation (loan funded share plan)	VOCUS COMMUNICATIONS LTD (Annual report 2016, 2017)	Employees have limited recourse to loans to acquire shares in a listed entity; these shares are held by a subsidiary until specific conditions are met and the loan has been repaid. The shares held by the subsidiary are treasury shares and deducted from "contributed capital".	Information in the compensation report and note on the nature and structure of the program (shares held and loans contacted by employees, shares held by the subsidiary, compensation expense for the year, number of new shares issued under the program with their issue price and fair value).	<ul style="list-style-type: none"> - Limited information on the method of accounting applied - Assumption of payment expressed on the basis of equity-settled shares using an embedded option value; - The treatment of diluted EPS is not disclosed and little information is provided to assess the dilutive effect on the share purchase program.
Stock options issued as part of employee or director compensation	ADAVALE RESOURCES LTD (Annual report 2016, 2017) DATETIX GROUP LTD (Annual report 2016) LITHIUM POWER INTERNATIONAL LTD (Annual report 2016, 2017) VOCUS COMMUNICATIONS LTD (Annual report 2016, 2017)	Equity-settled share-based payments	Information in the remuneration report and note detailing the total number of shares covered by the options, the remuneration expenses for the year, and the number of new shares issued through the exercise of options. Information on the method and parameters used to value the options.	<ul style="list-style-type: none"> - Key parameters used to value options are not based on market data; - Little information on vesting conditions; Publication of potential dilution effects on diluted EPS and exercise price; - No information on changes in value for the year.

Name of hybrid financial instrument	Companies studied	Accounting treatment of hybrid financial instrument	Information contained in the financial statements	Comments
Stock options issued for the payment of services rendered by a consultant/advisor	LITHIUM POWER INTERNATIONAL LTD (Annual report 2016, 2017	Equity-settled share-based payments	<ul style="list-style-type: none"> - Information contained in the management report of the Board of Directors and additional notes on: - shares with an outstanding call option; - the corresponding annual charges; - the number of shares issued following the exercise of options; - the option valuation model and the values of the key parameters of this model used. 	<ul style="list-style-type: none"> - Key model parameter values used to value options are not based on observable data; - Disclosure of potential dilution effects at the level of diluted EPS and exercise price; - No information on changes in the value of options during the year.
Stock options issued free of charge associated with share issue options	LITHIUM POWER INTERNATIONAL LTD (Annual report 2016, 2017	No separate accounting records for options. Only the shares issued are accounted for.	<ul style="list-style-type: none"> - General information contained in the management report of the Board of Directors - Additional notes on the free options granted and the number of such options outstanding. 	<ul style="list-style-type: none"> - No details provided on accounting for options; - Disclosure of potential dilutive effects on diluted EPS and exercise price; - No information on changes in the value of options during the year.

4.2. France

4.2.1 Accounting for Debt Securities Treated as Equity

In France, **redeemable securities** are recorded in French GAAP account 1671 and are treated as quasi-equity. Their remuneration is based on a fixed portion and a variable portion, with the variable portion being based on sales, production or earnings. Subordinated securities are perpetual bonds paying a perpetual remuneration. They are classified as Other Equity if their remuneration is payable even if no profit or insufficient profit is made. If this condition is not met, they are classified as equity. **Subordinated notes** are recorded in quasi-equity. Rating agencies restate issues of subordinated notes in two parts, one in terms of debt and the other in terms of equity.

4.2.2 Accounting for Debt Securities Treated as Equity Securities

A bond convertible into shares (**OCA**) is a bond issued by the company that entitles its holder to exchange it for shares during a specified period and under certain conditions. Under French GAAP, **OCAs** are classified as debt in account 161 “Convertible bonds” and, if converted, become conventional equity. Under IFRS, **OCAs** are treated as compound instruments, with a debt component (the current value of interest and redemption flows discounted at a normal debt ratio) and an equity component (the value of the conversion option). While the second component remains fixed, the first (the debt component) is revalued each year based on the difference between the face value of the debt and the value initially recognized (amortized cost method).

For accounting purposes, bonds redeemable in shares (**ORAs**) are considered as bonds until redemption and as shares after redemption. Under French GAAP, they are recorded under Other Equity in the balance sheet, and the interest paid is recorded under “Financial Expenses” in the income statement. They are recognized in French GAAP account 167 Borrowings and debts with special conditions. This account appears in the balance sheet under Other Equity. Under IFRS, the issue value is broken down between the current value of the interest, recorded under Liabilities, and the balance, recorded under Equity.

Share subscription warrants (**BSAs**) are accounted for in the French GAAP liabilities account 1045 “Share subscription warrants” (under the capital-related premium account).

They remain in this account regardless of whether they are used. The warrant does not have to be accounted for separately, so this is standard loan accounting.

4.2.3 Accounting Examples

On 18 October 2013, CAP GEMINI SA (2016 Registration Document, p. 247) launched a bond issue consisting of bonds convertible into new shares and/or exchangeable for existing shares with a repayment option in cash and/or new shares (ORNANE) with a dividend entitlement date of 25 October 2013 and a maturity date of 1 January 2019. The nominal amount of the bond issue was €400,000,000, comprising 5,958,587

bonds with a nominal value of €67.13. The bonds pay no interest and are to be redeemed at par on 1 January 2019. On 5 October 2016, the company announced that it intended to proceed with the early redemption of all outstanding bonds. As part of this redemption, the holders of 5,934,131 ORNANE bonds exercised their right and received €398,358,000 and 640,184 existing shares. On 21 November, the company redeemed the balance of the outstanding ORNANE bonds in full. On the issue date, the ORNANEs were recorded as quasi-equity.

On 1 October 2014, ORANGE SA (2016 Registration Document, p. 245) issued the equivalent of €3 billion of lowest ranking **subordinated notes** in euros. Orange has a buyback option as of 1 October 2021. Step-up clauses provide for a coupon adjustment of 25 bps in 2026 and 75 bps in 2046. These securities are recorded under **Other Equity**, with their interest recorded as an expense and accrued interest not yet due recorded under Liabilities outside Other Equity.

Between 1 April and 17 April 2015, Air France SA (2016 Registration Document, p. 261) issued **perpetual subordinated notes (PSNs)** worth €600 million. These perpetual notes have an initial redemption option on October 2020 at the company's discretion. They pay an annual coupon of 6.25%, the first of which was paid on 1 October 2015 and was recognized as an expense of €18 million. These notes are presented under **Other Equity**.

In 2014, ACCOR HOTELS (2016 Registration Document, p. 270) issued a **hybrid bond with perpetual maturity**. This €900 million issue includes an initial redemption option on 30 June 2020 and a coupon of 4.125% until that date with a rate reset every five years thereafter. The bond issue is recorded under **Other Equity**, net of the issue premium, i.e. €894 million; interest is expensed.

In 2017, ENGIE (announcement published by the company on 11 April 2017) announced the issue of hybrid **perpetual deeply subordinated notes** worth €600 million. These bonds offer an initial fixed coupon of 2.875%, revised for the first time seven years after issue based on the five-year swap rate and then every five years thereafter. These securities are classified as **quasi-equity** in the corporate financial statements. The press release states that these securities will be recognized as 100% **equity** under IFRS and as 50% equity by the rating agency Moody's.

Generally, subordinated notes and their variants are recognized in Other Equity for companies that have adopted IFRS, but their treatment in the corporate financial statements may differ, as suggested by the ENGIE example.

4.3 Canada

4.3.1 *Accounting Principles for Convertible Bonds and Preferred Stock*

The adoption of IFRS in Canada is more widespread than in Europe and applies to most economic entities. The IFRS are mandatory for the majority of listed companies, domestic or foreign, and for financial companies as of 2011, and they are optional for

profit-oriented private companies (or French GAAP Accounting Standards for Private Enterprises). If companies are also listed with the US SEC, they may also use US GAAP.

Convertible bonds in Canada are accounted for in accordance with IFRS (IAS 32 and IAS 39) and are therefore separated into their debt and equity components. Preferred stock, according to IAS 32, can be classified as debt or equity depending on its particular characteristics. Preferred stock that is mandatorily exchangeable or convertible for cash is recognized under liabilities. However, preferred stock with no maturity date and no contractual obligation on the part of the issuing company is recognized as equity.

4.3.2 Convertible Bond Accounting Example

BORALEX is an electricity generating company dedicated to the development and operation of renewable energy production sites in Canada. Below is an excerpt from its consolidated balance sheet for financial year 2016 (prepared in accordance with IFRS).

BORALEX convertible bonds are listed on the Toronto Stock Exchange (TSX). These instruments are divided into debt and equity components in accordance with the substance of the original contract. At the time of issue, the fair value of the debt component was measured using the prevailing interest rate for similar non-convertible debt. This amount is recognized as debt measured at amortized cost using the effective interest method until the conversion or maturity of the bond. As suggested in Figure 1, the equity component is calculated by subtracting the debt amount from the total fair value of the compound financial instrument. This amount, net of tax effects, is recognized in equity and is no longer revalued.

Table 5 - Registration document 2016 - Boralex

	2016	2015
Non-current debt	\$ 1,439	\$ 1,276
convertible debentures	\$ 135	\$ 133
Deferred income tax liability	\$ 70	\$ 88
Decommissioning liability	\$ 34	\$ 32
Other non-current financial liabilities	\$ 31	\$ 37
Other non-current liabilities	\$ 27	\$ 44
Non-current liabilities	\$ 1,736	\$ 1,610

4.3.3 Preferred Stock Accounting Example

BELL CANADA is one of Canada's leading telecommunications companies. It issued convertible preferred stock that is classified as equity as at 31 December 2016. The preferred stock confers no voting rights on stockholders but, in return, they may request that it be converted into, or exchanged for, another class or type of stock.

Table 6 - Registration document 2016 – Bell Canada

	2016	2015
Equity		
Equity attributable to BCE shareholders		
Preferred shares	\$ 4,004	\$ 4,004
Common shares	\$ 18,370	\$ 18,100
Contributed surplus	\$ 1,160	\$ 1,150
Accumulated Other comprehensive income	\$ 46	\$ 119
Deficit	\$ (6,040)	\$ (6,350)
Total equity attributable to BCE shareholders	\$ 17,540	\$ 17,023

4.4 United Kingdom

4.4.1 General Principles

IAS 32.28, FRS 25.28 and FRS 102.22 require that convertible bonds must be accounted for separately (Barden et al., 2007; Chopping, 2010; Ernst and Young, 2016), i.e. treated independently of the principal amount and the conversion right. In particular, the principal amount is generally treated as a debt security since it imposes a financial obligation for the issuer to deliver cash. If the conversion alone is mandatory or subordinated to a decision by the issuer, the obligation to deliver cash can be avoided and the financial instrument can be classified as equity (Barden et al., 2007). In these cases, the issuer's conversion right is considered as an equity tool. As such, it should be noted that the pre-emptive rights on new share issues held by investors depend on the type of shares into which the debenture can be converted. In line with this, a pre-emptive right is only granted by the Companies Act (CA) in cases where the conversion right refers to the committed capital in shares (CA Section 560 §1).

In general, the approach taken to classify and value hybrid financial instruments under FRS 102 differs quite significantly from FRS 25, without disregarding the principles set out above. However, FRS 102 broadens the scope of hybrid instruments to include bonds used by banks in relation to managing their capital (Additional Tier One (AT 1)). It is also based on a distinction between "basic" and "non-basic" (i.e. complex) financial instruments, which ultimately determines the type of valuation, either fair value or at amortized cost.

4.4.2 Preference Shares and Variants Thereof

FRS paragraph 102.22 includes non-convertible and non-puttable preference shares in the definition of basic financial instruments (see FRS 102 Section 11 "Basic Financial Instruments"). In particular, FRS 102.22.5 requires such instruments to be measured as equity at fair value through profit or loss (FVTPL) after initial recognition or at amortized cost (i.e. less impairment) if fair value cannot be determined reliably. Furthermore, the accounting treatment of preference shares may depend on their legal status, in particular those preference shares with a mandatory redemption clause (see FRS 102.22.5(e)). These will not be recorded as equity by the issuer but as a financial liability (debt) on the balance sheet.

4.4.3 Convertible Bonds

The accounting treatment of basic convertible bonds and non-basic (compound) hybrid instruments follows the requirements of FRS 102 Section 12 “Other Financial Instrument Issues” in its entirety, provided that the conversion component results in the payment of a variable return to the holder (see FRS 102.22.5(e)). In particular, they must be measured at fair value through profit and loss, and FRS 102.22.13 specifies that, for convertible bonds and variants thereof containing a debt and equity component, the entity must allocate the proceeds between the debt and equity components. In making this allocation, the entity must first determine the amount of the debt component at fair value of a similar bond (or liability) that does not offer an option to convert into shares or equivalent associated equity. The entity must then allocate the remaining amount as equity. For example, in April 2015, CENTRICA PLC issued a £750 million bond paying no interest before its expiry. At maturity, CENTRICA is required to issue the equivalent of £800 million in equity instruments. Although the bond is convertible into shares, it is not a compound (non-basic) instrument as there is no equity component attached to it. In other words, CENTRICA issued a bond that provides a return equivalent to £50 million, which is the difference between the proceeds from the bond issue and the amount due on bond maturity (£800 million - £750 million = £50 million), resulting in a payment of a fixed amount to the bondholders. The subordination relationship to the issuer’s equity does not make this return variable at any time; therefore, the liability component of the convertible bond can be described here as basic.

4.4.4 Hybrid Instruments Used by Financial Companies to Manage Their Regulatory Capital

Prior to the introduction of Basel III and the CRD IV Directive, hybrid securities held by banks were normally classified as capital for regulatory capital purposes and as debt for tax purposes. With the introduction under CRD IV of stricter criteria for these hybrid instruments to qualify as capital, uncertainty has arisen as to their tax treatment. Since these same instruments could be reclassified as equity instruments for tax purposes, banks might no longer be eligible for tax deductibility on interest paid and would have to remove the withholding tax from the interest paid. Ultimately, this would have made these instruments less attractive for issuers (banks) as well as for investors. In order to address this uncertainty, the UK authorities allowed banks to treat hybrid instruments used for regulatory capital purposes as debt for accounting and tax purposes immediately upon the introduction of CRD IV.

4.5 United States

4.5.1 Accounting for Convertible Debt

Depending on the conditions and the accounting model used (see Figure 1), convertible debt can be classified either in full as debt or split into a debt component and a conversion option. Several accounting models are available.

Accounting Model 1: Recognition as a liability – applying the fair value option

This is an irrevocable choice (unless an event occurs that requires revaluation) at the time of initial recognition of the debt instrument. It is an option only for instruments that will be classified in full as debt. The amount of debt under the fair value option is determined in accordance with ASC 820 “Fair Value Measurement”. This amount may differ from the amounts collected at the time the debt instrument was issued. Issue costs cannot be deferred to a later date. Interest expenses and changes in the fair value are determined in accordance with ASC 825.

Accounting Model 2: Separate accounting for debt with conversion option

The conversion option is considered to be a derivative in accordance with accounting standard ASC 815. The fair value of the conversion option is determined and deducted from the amount of the convertible debt. The conversion option is then recognized as a liability at fair value. Changes in fair value are recognized in the income statement. The remaining convertible debt is amortized as a conventional non-convertible debt.

Accounting Model 3: Split the instrument into debt and equity components according to the allocation criteria of the cash conversion feature

The fair value of the debt component is determined by comparing it with a similar debt financial instrument with no conversion option. The difference between the amounts collected and the debt component is recorded in equity without subsequent measurement. The debt component is amortised, and interest is calculated over the estimated life of the debt instrument.

Accounting Model 4: Recognition in full as a liability

Convertible debt is recognized, amortized and derecognized as conventional non-convertible debt.

Accounting Model 5: Split the instrument into debt and equity components according to the allocation criteria of the beneficial conversion feature (BCF)

According to the main Accounting Standards Codification (ASC) glossary, a beneficial conversion feature (BCF) exists when the conversion price is less than the fair value of the shares to which the financial instrument will be converted at the commitment date. A BCF is a non-detachable feature. The first step is therefore to determine the in-the-money amount of the conversion option. This option must then be recorded in equity (without subsequent measurement) and the remainder in liabilities. The amounts recorded as debt are amortized as a conventional non-convertible debt.

4.5.2 Accounting for Preferred Stock

In general, preferred stock is classified as a liability according to the rules of ASC 480 “Distinguishing Liabilities from Equity”.³⁴ If the preferred stock must not be classified as debt, according to ASC 480, it can be classified as equity or quasi-equity. For example, preferred stock redeemable for cash or other assets is classified as “Mezzanine Equity” (quasi-equity) if it is redeemable:

- at a fixed price and on a fixed date;
- at the shareholder’s discretion;
- on the occurrence of an event that is outside the control of the issuing company.

Convertible Preferred Stock is also often classified as quasi-equity based on its particular characteristics. The accounting classification of preferred stock under US GAAP (ASC 480, ASC 825) has been summarized in Table 7.

Table 7 - Preferred Stocks: Classification – US GAAP³⁵

Type	Debt or Equity	Equity or Quasi Equity
Mandatorily redeemable without a substantive conversion option	Debt	Non applicable
Mandatorily redeemable with a substantive conversion option	Equity	Quasi Equity « <i>Mezzanine Equity</i> »
Redeemable at the shareholder’s option	Equity	Quasi Equity « <i>Mezzanine Equity</i> »
Contingently redeemable at the shareholder’s option	Equity	Quasi Equity « <i>Mezzanine Equity</i> »
Redeemable (callable) at the issuer’s option	Equity	Equity « <i>Permanent Equity</i> »
Contingently redeemable (callable) at the issuer’s option	Equity	Equity « <i>Permanent Equity</i> »
Perpetual preferred stock	Equity	Equity « <i>Permanent Equity</i> »

³⁴ Perpetual preferred stock and preferred stock redeemable at the issuer’s discretion are a special case in that they are classified as equity.

³⁵ Financing Transactions Guide – PwC 2017 – USA.

4.5.3 Accounting for Convertible Preferred Stock (Quasi-Equity)

Xerox is a Connecticut-based US company, primarily credited as the inventor of the xerographic photocopier and the world's leading printer manufacturer. The convertible preferred stock issued by Xerox entitles shareholders to redeem some or all of their shares. Because of the possibility that it may be converted, we note in Table 8 that this convertible preferred stock is classified as quasi-equity (temporary equity) independently of conventional equity.

Table 8 - Registration document 2016 – Xerox

	2016	2015
Total liabilities	\$ 13,090	\$ 16,075
Commitments and contingencies		
Convertible preferred stock	\$ 214	\$ 349
Common stock	\$ 1,014	\$ 1,013
Additional paid-in capital	\$ 3,098	\$ 3,017
Retained earnings	\$ 5,039	\$ 9,686
Accumulated other comprehensive loss	\$ (4,348)	\$ (4,642)
Xerox shareholders' equity	\$ 4,803	\$ 9,074
Non Controlling interests	\$ 38	\$ 43
Total equity	\$ 4,841	\$ 9,117
Total liabilities and equity	\$ 18,145	\$ 25,541

It is important to note that American and international accounting standards (IFRS) have different definitions and, more importantly, different accounting mechanisms. Comparing these standards leads to the conclusion that US GAAP theoretically offers a more detailed accounting framework for hybrid securities. This is reflected in the narrower definition of financial instruments classified as financial liabilities and is reinforced by the selection criteria used to classify securities as compound financial instruments. For example, under IFRS, all convertible debts are compound instruments that require separate recognition due to the conversion option. This is not the case under US GAAP, where the conversion option is not always accounted for separately. Differences in the treatment of the conversion option therefore result in significantly different accounting treatments under US GAAP and IFRS, such as differences in interest expense, which are not recognized in the same way in the two accounting systems.

5. Conclusion

Companies use hybrid securities “halfway between capital contribution and external debt” in order to make their financial structure more flexible and avoid increasing their debt levels too much. While some hybrid securities are today better understood than others (Dutordoir *et al.*, 2014), their wide variety and complexity precludes any generalization in their legal and tax classification. Furthermore, the complexity of these financial instruments (within the meaning of IAS 32) creates international differences and even inconsistencies in their reporting. In this respect, our study provides a review

of the various legal, tax and accounting frameworks in five of the most active and representative countries in the hybrid securities market – Australia, Canada, the United States, France and the United Kingdom – in line with the Financial Instruments with Characteristics of Equity (FICE) project, which is currently being ratified. To do this, we followed a two-stage process.

Firstly, we reviewed the legal and tax classifications adopted for hybrid securities by the countries studied. In terms of taxation, we noted relatively homogeneous responses, particularly with regard to the deductibility of interest on hybrid debts and bonds. In terms of the legal aspects, three main categories of hybrid securities stand out from our analysis of the definitions provided by the jurisdictions studied: equity securities, debt securities treated as equity (“quasi-equity”), and debt securities treated as equity securities.

Secondly, we carried out a comparative study of the accounting classification methods for hybrid securities (as a mix of debt and equity) and their fair value measurement used by IFRS and national accounting standards (Australia, Canada, France and the United Kingdom). After highlighting real differences in the approaches used, particularly for compound financial instruments, our study concludes that US GAAP offers, in theory at least, a more detailed accounting framework for hybrid securities than the other frameworks. This is reflected in the narrower definition of financial instruments classified as financial liabilities and in the stricter selection criteria used to classify hybrid securities as compound financial instruments.

In view of the difficulties encountered in establishing unambiguous principles for classifying hybrid securities, particularly in Europe, we consider it appropriate, at a time when the IFRS Financial Instruments Characteristics of Equity (FICE) project is ongoing, to consider implementing a mezzanine category to classify compound hybrid financial instruments.³⁶ The use of a mezzanine category would help avoid the binary allocation, which sometimes appears to be random, between debt and equity and thus improve the quality of financial information, because the legal nature and even the economic substance of hybrid compound financial instruments would be better recognized. Under this mezzanine approach, equity would consist of financial instruments that represent a portion of the company’s residual value and do not create an obligation to transfer cash or other assets. By contrast, debt instruments would create an obligation to pay a fixed or pre-determined amount of cash (coupon interest) and/or the bond principal to the investor. These instruments would meet the current definition of separate payment of principal and interest as specified by IFRS 9, which replaces IAS 39 as of 1 January 2018, since the coupons payable to the investor reflect

³⁶ In an exposure draft conducted in 2015, the IASB concluded that the introduction of an intermediate category between debt and equity would make the accounting treatment of financial instruments in the balance sheet and income statement more complex (IASB, 2015). However, this conclusion has been criticized by the Accounting Standards Board of Japan (ASBJ), for example, which sees it as an opportunity to remedy the treatment of compound financial instruments, particularly hybrid financial instruments (ASBJ, 2015).

the credit risk of the issuing company and the time value of money. Following this logic, any other hybrid financial instrument with a more complex structure would be transferred to the mezzanine category. This could include convertible bonds, preference shares, derivative contracts indexed on the issuing company's own shares and possibly financial companies' contingent convertible bonds. One of the main advantages of the mezzanine (or temporary equity) category is that it avoids the separation of compound hybrid financial instruments into two components, significantly reduces the complexity of their accounting treatment and even assists in aligning IFRS and US GAAP.³⁷

Furthermore, issuers that have more than one hybrid instrument in the mezzanine category could list them in order of liquidation priority. This category could also be an opportunity to disclose additional information in the financial statements to better understand the impact these instruments have on solvency risks and the potential effects of dilution (or constraints) on the weight and returns of ordinary shareholders. Therefore, it might be appropriate to separate the solvency aspect from the valuation aspect (Ryan *et al.*, 2001) so that:

- liabilities are viewed from a solvency perspective and equity is viewed from a valuation perspective (e.g. an obligation to transfer cash equal to the fair value of the fixed number of shares), or
- equity is viewed from a solvency perspective and liabilities are viewed from a valuation perspective (e.g. an obligation to transfer a variable number of shares equal to a fixed amount in euros).

This distinction could help to harmonize the accounting information of financial companies (which have to comply with regulatory capital and solvency criteria (CRD IV and Solvency II)) with that of non-financial companies and provide additional information to their "rating", i.e. the credit risk estimated by the rating agencies. It should also be noted that under IFRS 9, a company may use several approaches to assess whether its credit risk has increased. Where certain risk factors or indicators may not be available for individual financial instruments, IFRS 9 now requires companies to make this assessment on a collective basis, by appropriate groups of financial instruments or parts of portfolios of financial instruments (Deloitte, 2014). The recognition and measurement of compound/hybrid financial instruments within a specific category known as "mezzanine" therefore seems appropriate.

³⁷ Under US GAAP, compound financial instruments are not classified as a debt component and a separate equity component. Furthermore, the use of the mezzanine category is not a new idea. SEC reporting companies were required to use a mezzanine (or temporary equity) category in the 1980s following the publication of *Accounting Series Release No. 268, Presentation in Financial Statements of "Redeemable Preferred Stocks"* (ASR 268) in 1979.

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The Distinction Between Debt and Equity: A Question of Governance?

Abstract

With the release of the *Discussion Paper Financial Instruments of Characteristics of Equity* (DP FICE) in June 2018, the IASB proposes a discussion about a new classification of financial instruments from the perspective of their issuers. Up until now, the traditional risk / liquidity approach adopted to classify hybrid instruments makes it possible the distinction between equity and debt in most cases. This paper proposes to enrich this classification approach through a comprehensive literature review and capitalizing on the advances in organizational and behavioural theories. Indeed, the issues of control and corporate governance are at the heart of the analysis of such classification given the perspectives of shareholders or of creditors. Moreover, the influences of both the legal and institutional frameworks should not be ignored by the IASB since hybrid instruments contain some complex covenants, which raise questions regarding the incompleteness of financial contracts.

JEL Classification:

Hybrid financial instruments – IFRS –
Corporate Governance – Equity

1. Introduction

The issue of the distinction between debt and equity has never been more topical. As evidence of this, the IASB has opened the debate with its Discussion Paper/2018/1 *Financial Instruments of Characteristics of Equity* (FICE DP) launched in June 2018, the consultative phase of which ends in early 2019, with the aim of proposing a classification of equity and debt and a presentation of specific needs. The issue of classification concerns in particular complex financial instruments such as preference shares, redeemable shares, convertible bonds (CBs), perpetual securities, convertible contingent bonds (CoCos), derivatives on treasury shares, puttable instruments, mezzanines, etc. All these instruments, described as “hybrids”, are the brainchildren of financial engineers and business lawyers and subtly combine elements from finance, accounting, law and taxation together with organizational and institutional theories. However, the issue of classification is not new. As early as 1922 in his book entitled *Accounting Theory*, Paton explained the reasons why companies issued hybrid products.³⁸ One of the reasons cited is that possession (ownership) involves the right to control the transaction (p. 71). Subsequently, he highlighted the importance of classifying equity and debt instruments according to their level of risk and/or control and their impact on the company’s future cash flows.

The FICE DP is only interested in improving the classification of financial instruments so that IAS 32 can be more consistent, complete and clear. It does not address the recognition and measurement of financial instruments, which remain within the scope of IFRS 9. It attempts to address the debt/equity dichotomy used by the IASB until now, which is now being undermined by the exponential growth of hybrid securities in corporate finance. Numerous academic works have offered analyses and syntheses on this issue (Schön *et al.*, 2009; Schmidt, 2013). There are two main criteria that identify a debt³⁹ (EY, 2018): a maturity and/or a term (i.e. the obligation to transfer cash or another financial asset at some point in time to repay the contract) and a transaction amount (i.e. the obligation to repay, regardless of the entity’s available economic resources). If there is an obligation of time and amount, we are dealing with a conventional debt. If there is no obligation of time and amount, then the financial instrument is classified as equity. However, if there is only one obligation (time or amount), it is a hybrid debt that deserves special attention. This binary approach involves looking first at debt, since the definition of an equity instrument is in fact no more than an absence of an answer to the definition of debt. With regard to financial debt, the FICE DP proposes presenting, on a separate line in the balance sheet, the standard financial debts that provide a remuneration that is comparable to the remuneration from equity and to present, in the statement of financial performance, financial income with a counterpart listed under Other Comprehensive Income (OCI)

³⁸ Financial engineering does not originate in the 20th century. According to Gallais-Hamonno and Zamfirescu (2002), it dates from the 18th century with loans based on tontine and life annuity. Similarly, Hirigoyen (1992) describes the multiple financial innovations of the 19th century with railway company bond issues and the first junk bonds issued in the 1920s.

³⁹ This is the Gamma approach proposed by the IASB.

without recycling (EFRAG, 2018).⁴⁰ All these proposals are part of a technical approach aimed at providing an operational response to issuers of hybrid instruments.⁴¹ Under these proposals, hybrid securities are contracts – complex and/or incomplete – that require detailed explanations to be provided in the notes to the financial statements. Furthermore, since the world's main issuers are primarily banking institutions, accounting rules and prudential constraints have been mutually influenced from the outset in order to classify both the risk and liquidity of the instrument issued as far as possible.⁴² This approach is actually designed to identify and prioritize most hybrid securities and is ultimately suitable for use by auditors and/or rating agencies.

Hybrid securities are defined as financial instruments that, by combining the characteristics of several other instruments, fall between pure debt and a company's share capital. The funds generated by these hybrid securities are often referred to as quasi-equity.⁴³ Most national regulations – including the French regulations – recommend classifying these securities into three categories: hybrid equity securities (preference shares, for example) and two sub-categories of debt securities, specifically debt securities treated as equity (perpetual securities, participating loans, perpetual subordinated notes, redeemable subordinated notes, etc.)⁴⁴ and debt securities treated as equity securities (convertible bonds, bonds redeemable in shares or cash, bonds with share subscription warrants, bonds exchangeable for shares, etc.).⁴⁵ While it would be almost impossible at this stage to list all types of hybrid instruments issued around the world, it seems appropriate to focus on one of the most widespread categories: convertible bonds (CBs). A CB is a debt instrument that can be converted into a fixed or variable number of shares at the discretion of the investor or issuer. The global volume and growth of CB issues demonstrates a clear interest in this type of financial product in recent years. At the end of 2017, according to analysts at Bank of America Merrill Lynch, the market capitalization of CBs was around \$400 billion (€307 billion), of which a little over half (\$223 billion) was in the United States and nearly a

⁴⁰ This is similar to the approach taken by the ANC in 2013 when it published its recommendation to make a distinction between recurring operating income and operating income in the income statement.

⁴¹ Subscribers are not affected by the DP because, as investors, they fall under IFRS 9 and its definition of a financial asset.

⁴² This is especially true for CET1 and IFRIC2.

⁴³ A convertible bond is a hybrid security as the debt security represented by the convertible bond can be converted into an equity security.

⁴⁴ Redeemable subordinated notes (RSNs) are subordinated issues with a known maturity for which the payment of coupons is not always guaranteed (after shareholders have received their dividends). These issues were attractive for companies because the proceeds were treated as equity. Since Basel 3 came into force, RSNs are considered as hybrid securities and as such no longer form part of core capital. Perpetual subordinated notes (PSNs) are perpetual debt securities whose capital is theoretically never repaid. As with RSNs, if the issuer goes bankrupt, PSN holders are compensated only after all other creditors.

⁴⁵ A bond convertible into new or existing shares (OCEANE) allows the issuer of a convertible bond to deliver to the creditor either new shares issued specifically for this purpose or existing shares that it holds, for example following a share buyback. A bond redeemable in shares or cash (ORANE) is a short-term bond that can be redeemed either by the delivery of new shares or cash. A bond with share subscription warrants (OBSA) is a bond to which one or more share subscription warrants have been attached, allowing the holder to subscribe to a future capital increase at a fixed price.

quarter in Europe (Dinsmore et al., 2018). While US and Japanese companies are the largest issuers in the world, followed by European countries (Dutordoir et al., 2016), France and Germany together account for approximately two thirds of European issues. By comparison, the global market capitalization of traded equity and traded corporate debt is estimated at €320 trillion and €51.8 trillion respectively (France Télécom, 2018). Therefore, in order to be able to distinguish between a debt instrument and an equity instrument, the prefatory question concerns understanding both the origin of the classification and the theoretical underpinnings that lead issuers to use hybrid securities in general and CBs in particular.

The answers to this question are manifold and generally not particularly agreed upon despite the many empirical studies conducted (Dutordoir *et al.*, 2014a). According to these authors, three groups of empirical research can be identified. First, studies that attempt to explain why firms issue hybrid debt in preference to conventional debt. Second, research that attempts to measure the impacts of issuing CBs on shareholder wealth, whether in the short or long term. Lastly, the factors determining the characteristics of the CBs constitute an alternative research avenue (dividend protection clauses, underpricing of CBs, cash delivery, arbitrage on the underlying asset, issues of interest-free CBs for start-ups, volatility spread, etc.). As Brealey *et al.* (2011) point out, the issue of innovation in convertible bonds is one of the ten unsolved puzzles in finance. In fact, all these studies are rooted in evolving but often divergent theoretical explanations. Most of these theories taken in isolation turn out to be incomplete, making it impossible to generalize in relation to their findings on account of institutional and regulatory peculiarities, specific geographical characteristics and/or particular tax issues. Similarly, it does not seem plausible to argue that quantitative research methodologies are superior to qualitative approaches, or vice versa, in providing a clear answer to the issuance of hybrid securities (Dutordoir et al., 2014a). An alternative theoretical framework derived from organizational and/or behavioral finance seems to be emerging with a view to providing a better understanding of the use of such issuances. This primarily involves a re-examination of governance systems in the light of neo-institutional and contractual theories.

After explaining how hybrid securities are classified from both a legal and economic point of view, the position of issuers of hybrid securities will be presented using the main financial and governance theories. Based on the theory of incomplete contracts, it is proposed that the standard setter include additional criteria such as those related to control of the instrument to be defined, either in the conceptual framework or in IFRS9, in order to standardize the classification of financial instruments.

2. Attempting to Classify Hybrid Securities: A Complex Process

Attempts to classify financial instruments have been made for a long time. They go as far back as the emergence of financial engineering. Although the legal and tax aspects of financial instruments are still specific to each country or group of countries, the advent of IFRS has led to country-specific accounting standards being brought into line with this international framework. However, the classification of financial instruments

proposed by the IASB is still too imprecise at present. The IASB bases its analysis on a breakdown of the risk and liquidity of the instrument in order to allocate it either to equity or to debt (Gamma approach that can be split into Alpha and Beta approaches), which differs quite significantly from the rating agencies. Ultimately, the international accounting standard setter could explore creating a separate quasi-equity category under the Equity heading so as to leave it up to each issuer to explain the advantages, constraints, limits and commitments of the instrument under Disclosures in the Notes to the Financial Statements.

2.1 Origins and Issues of Classification

While IFRS is intended to be an international language for translating the business world, the classification of financial instruments initially proposed by the IASB with IAS 32 has been strongly criticized. This is because, firstly, IFRS is not useful to investors and assessors,⁴⁶ and secondly, it actually draws on accounting languages (US GAAP, Japanese GAAP, French GAAP, etc.) that are influenced by the legal and tax aspects specific to each country. Schmidt (2013), citing the parallel between IASB F.4.4 (c) and US ASC 505-1-05-3, explains that the dichotomy between fixed settlement (debt) and subordination (equity) has led the IASB to define equity as non-debt, i.e. to consider it as a residual interest or net asset. By adding interpretations (SIC 5, 16 and 17; and IFRIC 2) and amendments (“puttable instruments” from 2008, for example) to reclassify a debt as equity and vice versa, a vagueness has arisen due to the number of exceptions proposed by IAS 32 over the last twenty years. The same is true of US GAAP, which favors classification as debt where there is any doubt, which leads, for example, to the restatement of the gearing ratio for redeemable preferred stock, which is no longer included in equity (ASR 268) but in debt.⁴⁷

As a result, many instruments classified as equity under IFRS are classified as debt under US GAAP. The case of perpetual bonds is interesting because according to SFAS 150,⁴⁸ interest payments are considered to contain a principal repayment component. While this approach seems appropriate for perpetual bonds, it has its limitations in the case of CBs. These bonds, which can be settled by delivering cash, can be treated as a special case,⁴⁹ being split into a debt and an equity component. In this case, the components will require separate recognition at fair value (APB 14-1).⁵⁰ This treatment is similar to that recommended by IAS 32, in that a compound financial instrument⁵¹ with debt and equity components must have separate accounting

⁴⁶ For example, rating agencies often classify a hybrid instrument as 50% debt and 50% equity.

⁴⁷ In the United States, there are four classes of preferred stock: preferred stock classified as debt for the purposes of ASC 480; redeemable preferred stock for cash or other assets; convertible preferred stock; perpetual preferred stock or preferred stock redeemable at the issuer’s discretion.

⁴⁸ SFAS 150 “*Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*”.

⁴⁹ EITF 90-19: “*Convertible Bonds with Issuer Option to Settle for Cash upon Conversion*”.

⁵⁰ APB14-1 “*Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)*”.

⁵¹ These include, for example, preferred stock with a redeemable preferred stock option, whose dividends are paid solely at the issuer’s discretion, or the various types of convertible bonds.

treatment for each component. The debt component is recognized at fair value, calculated by discounting cash flows at a market rate for similar debt instruments. As for the equity component, it is measured as a residual amount, as the difference between the nominal and present value.

Much research has attempted to explain accounting trade-offs where the classification affects the judgement about the proposed hybrid instrument. For some authors (Hopkins, 1996), the classification reflects the characteristics of the instrument but also its solvency and/or liquidity. While some hybrid securities are today better understood than others (Dutordoir *et al.*, 2014a), their wide variety and complexity make it impossible to provide a generalized explanation. Furthermore, their sheer number creates differences and even inconsistencies in their reporting in the group financial statements. Among hybrid securities, preference shares provide a wide field of study. For Kimmel and Warfield (1995), they are nothing more than an indicator of equity risk. De Jong *et al.* (2006) argue that, although preference shares are classified as equity under Dutch standards and as debt under IAS 32, most firms bought back their own preference shares or inserted clauses in the securities to maintain a certain level of equity classification at the time of the switchover to IFRS.

Ultimately, firms are happy to accept a higher financing cost to achieve a desired accounting classification (Engle *et al.*, 1999). Classification as equity improves performance measurement because it allows diluted earnings per share (diluted EPS) to be managed and forecast. It also helps mitigate the negative perception of financial leverage, achieve a lower cost of capital and better manage debt ratios to avoid violations of bank covenants. The issue of accounting classification has a direct relationship with a company's financial structure and an indirect consequence on its cost of capital and valuation.

2.2 From a Legal Classification to an Economic Purpose for Hybrid Securities

Bonds convertible into shares (OCAs) were created in France by decree on 3 September 1953, but it was the law of 6 January 1969 that established the principle of converting this security at any time in order to enhance its effectiveness. Convertible bonds are considered to be a debt security treated as an equity security. Under French GAAP, OCAs are classified as debt in account 161 "Convertible bonds" and become conventional equity only if they are converted. Under IFRS, OCAs are treated as compound instruments, with a debt component (the current value of interest and redemption flows discounted at a normal debt ratio) and an equity component (the value of the conversion option). While the second component remains fixed, the first (the debt component) is revalued each year based on the difference between the face value of the debt and the value initially recognized (amortized cost method).

The impact of the legal and tax classification of hybrid instruments in relation to their accounting and tax treatment is far from being a minor issue. Against a backdrop of rising interest rates globally and more favorable tax frameworks for companies, the appeal from a tax perspective of issuing a particular category of hybrid instruments is

growing (see Table 1 for an illustration of the situation in France). Similarly, attention must be paid to their underlying economic purpose. For a CB, if exercising the conversion right is an option offered to the holder of a convertible debt instrument, that debt should be treated as an ordinary liability since this allows the investor to participate in any increase in the value of the equity and the issuer to save cash by paying a lower coupon. If conversion is mandatory, classifying it as equity becomes possible, even if this has an adverse effect on the entity's capital structure.

Table 1 - Summary table of the main hybrid securities: legal and tax treatment

Securities	Definition			Legal treatment	Tax treatment
	French Commercial Code	Financial and Monetary Code	Others		
Preference Shares	Article L.228-11		Article 31 prescription n°2004-604 2004, 24 June	Shares benefiting from "special rights", "of any kind",	No particularity with respect to the common shares
Redeemable Shares	Article L.228-36 et L.228-37	Articles L.211-1, II, 2 et L213-32	Law n°83-1 1983, 3 January	Indefinite term debt securities (repayable upon liquidation of the company) with a participation clause	Their remuneration is an expense for the year when the remuneration is paid.
Subordinated Securities	Article L228-97		Law n° 85-1321 1985, 14 December	Debt securities representing stable and permanent capital	Their remuneration is assimilated to the payment of interest on an ordinary debt. Tax deductible.
Redeemable Loans		L.313-13 to L.313-20	Law n°78-741 1978, 13 July Law n°2005-882 2005, 2 August	Intermediate means of financing between the long-term loan and the equity investment.	Amounts paid in remuneration of equity loans are tax-deductible for the issuing company.
OCA - Convertible bonds in shares	L228-92		Decree n°53-811 1953, 3 September	OCAs are debts until they are converted.	Their compensation is recorded as an expense for the year using the accrual method. Tax-deductible.
ORA - Bonds reimbursable in shares		Article L228-91		ORAs are qualified as deferred equity securities	ORAs are treated as bonds until redemption, then as shares after conversion.
Warrants	L228-91		Law 1983, 3 January Law 1985, 14 December	Immediately negotiable warrant entitling the holder to subscribe for a capital increase of the issuing company	The warrants do not receive any remuneration. They are not subject to any taxation.
OBSA - Bonds with warrants	L228-91		Law n°83-1 – 1983, 3 January	OBSAs are qualified as potential equity securities.	No fiscal particularities.
OE - Exchangeable bonds	L228-91			OEs include an option to exchange them for equity securities (shares) of the issuing company.	No fiscal particularities.

In the case of France, Mourgues (1996) proposes a classification based on the concept of quasi-equity. Quasi-equity is equity without actually being equity. It provides a bridge or gateway from debt to equity. The scope of the word “quasi” carries a wealth of meaning (Sakr, 2009), but it can sometimes be insufficient to define the overall concept of quasi-equity. The “equity/debt” classification is then challenged by these new hybrid vehicles that fall into this category. Debt is becoming increasingly similar to equity (Sakr, 2009). This quasi-equity is very quickly becoming a substitute for contributions from non-repayable, risky funds, which are contributions from loaned funds that would be free of any economic risk. A proposal for classifying hybrid instruments as equity, quasi-equity or debt was made by Mourgues (1996). This classification is presented in Table 2.

Table 2 – Distinction Equity, Quasi-Equity and Quasi-Social Capital

Notions	Equity	Quasi-Equity	Quasi-Social Capital
Items	<ul style="list-style-type: none"> - Partner’s contribution - Revaluation surplus (OCI) - Reserves - Retained Earnings - Subvention - Regulated provisions 	<ul style="list-style-type: none"> - Redeemable shares - Subordinated securities - Associates’ current accounts - Bonds redeemable in shares - Conditional advances - Funds intended to be capitalized and not to be repaid 	<ul style="list-style-type: none"> - Warrants - Options de paiement du dividende en actions - Options de souscription au bénéfice des salariés et des dirigeants sociaux - Shares with warrants, Bonds with warrants and Shares with redeemable warrants to subscribe for new or existing shares - Convertible bonds in shares - Conditional Subordinated bonds - Convertible bonds with warrants

Source: Mourgues (1996)

According to Mourgues (1996), the characteristic features of equity instruments are, firstly, their non-redeemability (cannot be amortized and are available indefinitely to the company) and, secondly, the uncertain nature of the remuneration, which is not normally payable. The holder of an equity instrument is entitled to a liquidation bonus but can also claim non-monetary recognition of rights in the form of voting rights representing control (Sakr, 2009). For instruments classified as quasi-equity, their maturity is reduced, and their repayment is solely at the issuer’s discretion. Remuneration may be deferred, and its payment is often conditional. The concept of quasi-share capital does not correspond to any accounting and financial category in the same way as equity, quasi-equity or debt. This concept refers to conditional contracts that are backed by a derivative (option or warrant).

Couret *et al.* (2016) consider that the notion of quasi-equity reveals the weakness in the concept of equity. It is up to the investor – and not the issuer – to take certain categories of current liabilities into account. The concept of quasi-equity is therefore a

financial concept for financiers rather than a concept for legal experts. It could be identified according to two criteria:

- The criterion of ranking in order of due date, since these funds are not due until all creditors have been paid;
- The criterion of equity potential contained in certain debt securities (Sark, 2009).

The announcement published by ENGIE on 11/04/2017 can be cited as an example. *“In 2017, ENGIE announced the issue of hybrid perpetual deeply subordinated notes worth €600 million. These bonds offer an initial fixed coupon of 2.875%, revised for the first time seven years after issue based on the five-year swap rate and then every five years thereafter. These securities are classified as quasi-equity in the corporate financial statements. The press release states that these securities will be recognized as 100% equity under IFRS and as 50% equity by the rating agency Moody’s.”* This example shows that the complexity of the accounting treatment still needs to be assessed and has a significant impact on the group’s financial structure and performance.

2.3 Environmental Diversity or Institutional Isomorphism?

The IASB and the FICE DP are seeking to propose technical solutions in a uniform, coherent and consistent document that addresses many conceptual questions while taking into account the diversity of legal, tax and economic situations in view of the innovation in financial products. The IASB’s response will always be imperfect if it does not, firstly, re-examine the entire IAS 32 standard and its various amendments and interpretations and, secondly, clarify certain aspects relating to financial instruments in its conceptual framework.

IAS 32 proposed a framework for classifying financial instruments to treat convertible bonds as compound financial instruments. The debt and equity components are classified according to two distinct characteristics. The debt component is calculated by discounting future cash flows at a market rate. The equity component is measured as a residual amount, as the difference between the nominal and present value. If we look at convertible bonds as a telling example of the problems of classifying other categories of hybrid securities, we can see that we are dealing with compound instruments that require separate recognition of debt and equity due to the conversion option. This point is highlighted when comparing the accounting standards of several countries, not all of which offer the same treatment as the IASB in terms of accounting recognition and treatment (see Table 3).

Table 3 - Treatment of convertible bonds in some countries

United States	Same treatment as under IFRS since 2008 only. Prior to the accounting treatment of convertible bonds was in debt
France	The French Gaap do not specify the accounting treatment of convertible bonds and classifies them in their entirety as debt under "161 - Convertible bonds".
Germany	German standards are aligned with IFRS. The difference is in the valuation of the debt component (recorded at redemption value)
UK & Ireland	Convertible bonds are treated in the same way as conventional bonds and carried forward as debt
Netherlands	Dutch standards do not require separate classification of the debt and equity components of convertible and exchangeable bonds.
Italy	Italian standards do not distinguish convertible bonds from other conventional bonds
Portugal	Convertible bonds are recognized in full as debt

While it is true that there is an isomorphism in our developed economies, the fact remains, however, that local characteristics persist, especially for large issuers of CBs. The depth of the financial market (as in the United States) and the experience of issuers (as in Japan) are two criteria that take precedence over classification recommendations.⁵² The diversity of institutional frameworks (financial intermediation, governance, financial law, regulators, etc.) continues to influence accounting practices.

The study by Dutordoir *et al.* (2016) on the Japanese market reveals that CB issues are more favorably received in Japan than in other countries because share prices react favorably to the announcement. This is due to three factors. First, the institutional environment is different because of the existence of the keiretsu model. Second, the much more protracted issuing procedures would weaken the negative content of CB issues (Christensen *et al.*, 1996). Lastly, the difference in accounting standards could be an explanation because the specific information required from Japanese issuers reduces uncertainty around the projects being funded and limits senior management involvement.

Cailliau (1990) explains the hesitations of the French accounting standard setter to provide an economic or legal perspective on hybrid instruments. In reality, his question is primarily concerned with the role that accounting should play. Should it have a contractual usefulness for creditors, or should it be used by shareholders as part of a prospective valuation mechanism? As is often commented on, accounting standards in general, and IFRS in particular, were designed primarily for financial creditors and not only for shareholders. Assuming that financial markets are functioning properly and however relevant accounting information may be, it certainly loses its usefulness in

⁵² Especially as these two countries do not adopt (or only partially adopt) IFRS.

determining stock market prices as soon as it is published. Broken down, deconstructed, stripped away, reinvented, etc., hybrid securities are ultimately incomplete contracts requiring detailed explanations in the notes to the financial statements to understand the relationship between the company's creditor and the cash flows generated by the company. In this context, La Porta *et al.* (1998), with reference to various national frameworks, explain the quality of shareholder and creditor protection, financing structures and share capital ownership.

3. Hybrid Securities and Issuer Positions: An Ambiguous Interpretation

Traditional financial theory is unable to explain the presence of quasi-equity in business financing. Moreover, Ross *et al.* (2012) argue that the reasons behind issuing hybrid securities is one of the most controversial issues in corporate finance that remains unresolved to date. Aside from the tax and legal aspects that create ambiguities and thus distortions between countries and issuers, the economic and financial justifications for using hybrid instruments are based on several theories. But in business, CB issues are stimulated by the diversity of regulatory environments and the variety of governance systems (Aggarwal *et al.*, 2009). Schleifer and Vishny (1997) cite internal reasons related to the quality of governance, while Doidge *et al.* (2007) list country-specific institutional aspects, contrasting those countries based on common law with those based on civil law. The study of the role and place of governance explains the issues in relation to control and power for companies issuing hybrid instruments.

3.1 A Foundation in Organizational Finance

Ever since the emergence of the first theories on the financial structure of companies proposed by Modigliani and Miller (1958, 1963), much research on the subject has been carried out along two main lines. The first is the compromise theory (Kraus and Litzenberger, 1973) and the agency theory (Jensen and Meckling, 1976; Jensen, 1986), which were developed to answer the question of whether an optimal capital structure exists. The second introduces the alternative information asymmetry hypotheses with Donaldson (1961) and then Myers and Majluf (1984) proposing the hierarchical financing theory, Ross (1977) proposing the signaling theory, and Baker and Wurgler (2002) proposing the market timing theory. However, none of these theories explains the presence of hybrid instruments in the capital structure. Evidence from organizational theory must therefore be used.

3.1.1 Main Theories Explaining the Issuing of Hybrid Securities

According to Dutordoir *et al.* (2014a), CB issues are seen primarily as a mechanism to reduce agency costs (Dutordoir and Van de Gucht, 2009) and adverse selection costs resulting from information asymmetries. The interdependence between the cost of funding for companies, the reasons for issuing CBs and the quality of governance form the core of the explanation. The reduction in agency costs can be explained by two main theories (Dutordoir *et al.*, 2014a). The first is the Risk Shifting Theory, put forward

by Green (1984), which is centered around the conflicts between shareholders and creditors. It argues that companies issue hybrid debt in order to reduce potential conflicts between shareholders and creditors. By controlling the parameters of hybrid debt (conversion rate, exercise price, maturity, etc.), investors can constantly monitor the way they take risks. The second is the Managerial Opportunism Theory proposed by Isagawa (2000),⁵³ which argues that issuing CBs helps senior managers to become firmly entrenched in the organization and therefore protect their position. Senior managers can force a conversion when a new project increases the value of the company and refrain from doing so otherwise. As a result, the entrenched senior manager will not take on a risky project where cash flow is insufficient to repay the debt. CBs thus avoid the risk of bankruptcy but also the risk of a hostile takeover.

Furthermore, CBs designed as a means of reducing adverse selection are addressed by three main theories. The first is the Back Door Theory proposed by Stein (1992). It argues that the use of hybrid instruments by an issuing company is the most efficient alternative for achieving an optimal financing structure since it simplifies the trade-off between the advantages and disadvantages of debt. The second is the Risk Uncertainty Theory proposed by Brennan and Kraus (1987) and Brennan and Schwartz (1988). Hybrid securities could counteract the problem of information asymmetry that arises when senior managers and investors do not share the same information or have different views on corporate risk. Through issued hybrid debt, investors demand a lower risk premium than that required on equity. It is therefore easier for senior management and investors to agree on the value of the CB rather than the value of the debt, thereby reducing the costs of adverse selection. The last is the Sequential Financing Theory proposed by Mayers (1988), which sees CBs as a means of covering a company's sequential financing needs. A company initially issues convertible bonds with the idea that, once the next stage of the investment has been completed, it will be able to force the conversion of its debts and thus "clean up" its balance sheet by transferring the debts into equity. Furthermore, CBs are better equipped to deal with an overinvestment problem than debt or equity. In this case, CBs should be considered as a collection of short-term debts with a conversion option.

Early studies often support the use of CBs to obtain lower interest rates through their conversion option. The findings of the study of chief financial officers conducted by Graham and Harvey (2001) are unconvincing and do not support any theory except that of Green (1984). Furthermore, Lewis *et al.* (2001) argue that the share prices of convertible bond issuers underperform those of non-convertible bond issuers. In this case, issuing CBs would destroy the financial structure, since the poor performance of a convertible bond listed on the markets would ultimately act as a brake on a future capital increase.

⁵³ Isagawa (2000) constructs a three-period model in which it is assumed that a CB with a well-structured issuer callable early redemption clause constrains management opportunism by helping to reduce overinvestment and underinvestment.

The innovative features of CBs (maturity, conversion premium, rate calibration, clauses, etc.) are a substitute for conventional debt for issuers who no longer have access to capital because of market rationing, for example. The use of CBs by issuers is therefore legitimate in increasingly complex situations (legal and institutional environments). Macroeconomic variables also help explain the framework that may or may not be favorable to CBs for both issuers and buyers (De Jong *et al.*, 2013). However, there is a lack of empirical research on financial institutions (banks and insurance companies) whose business model follows other approaches, particularly with regard to the conversion methods used to convert CBs (Koziol and Lawrenz, 2002).

In Appendix A of their literature review, Dutordoir *et al.* (2014a) present, in the form of a summary table, 43 studies on CB issues, which they classified into three main areas: 20 studies on the motivations of managers to issue CBs; 18 studies on the characteristics of CBs; 16 studies on the impact of shareholder wealth. Of the 43 studies identified, nine were qualitative studies and eight concerned only European markets. The theories of Stein (1992), Mayers (1988), Brennan and Kraus (1987) and Brennan and Schwartz (1988) are the most frequently validated. The theory proposed by Green (1984) is very often rejected. This suggests that the agency theory is not a central concern of issuers. However, the choice to issue CBs does confirm the desire to reduce information asymmetries between senior management and investors.

3.1.2 Hybrid Securities as Governance Mechanisms

The use of CB issues appears to be a subtle governance problem, much more than a “simple” asset substitution problem rooted in agency theory as developed by Jensen and Meckling (1976). In reality, CBs are a means of assessing the quality of corporate governance. According to Dutordoir *et al.* (2014b), two hypotheses can be tested. Firstly, it is companies with weak governance that are most likely to issue debt or equity. As traditional governance mechanisms are failing (both in common law and civil law countries), companies rely on issuing financial instruments in order to control the behavior of stakeholders. This is the case for entrenched senior managers who want to avoid market discipline by keeping control of their powers and profits through forced conversions, for example. Secondly, it is the best governed companies that can issue CBs, taking into account their maturity, the share ownership structure or the specific characteristics of their countries/markets. The findings of their research are indisputable: issuing CBs is an alternative to governance mechanisms only when they have been designed as a substitute and not as a complement, such as an audit committee for a board of directors or a shareholders’ agreement.

A classification of financial instruments based on governance criteria would have the advantage of both complying with existing theoretical and conceptual frameworks and providing an operational response to IFRS 9 with the concept of a business model (Obert, 2014). While there is a wealth of literature on the business model, the 2013

research paper published by EFRAG, ANC and FRC⁵⁴ narrows the concept to its financial dimension: *“Our assumed meaning of the term ‘business model’ focuses on the value creation process of an entity, i.e. how the entity generates cash flows”*. However, the business model is primarily based on the intentions of senior management. Changes in these intentions over time can pose a problem of comparability. However, comparability should not be confused with uniformity of financial information. Gélard (2008) points out that *“wanting to fit different events and transactions into the same mould by applying the same rules is a matter of uniformity, which is the opposite of comparability”*. Although the IASB remains rather cautious about this concept (which it introduced itself in IFRS 9 in particular), it is nevertheless essential for the relevance of information because it facilitates decision-making by both financial instrument issuers and investors.

3.2. Working Towards Harmonized Regulatory Environments

3.2.1 Incompleteness of Hybrid Securities Contracts

A financial instrument is basically a contract issued between a company and a capital contributor, whether a shareholder or a creditor. The legal characteristics of ordinary securities (ordinary shares or ordinary debt) are regulated by the financial law of each issuer’s country. As soon as the instrument no longer meets one of the criteria for maturity or amount, it becomes a hybrid instrument, as defined by the IASB in its liquidity/risk approach in IAS 32. However, what specifically defines hybrid securities is that they exhibit complex or abnormal attributes. These securities are characterized by long maturities (in the case of super subordinated notes) or even unlimited maturities (in the case of perpetual annuities). These contracts may be subject to unforeseen changes or contingencies (as with CoCos, redeemable shares or share subscription warrants) and indexed or fixed remuneration (as with cumulative preference shares classified as debt). The authority-subordination relationship is the key to managing an uncertain situation that is impossible to assess or even contemplate, rather than a risky, i.e. probable, situation. All these elements, which led to the formation of hybrid instruments, are characterized by an inability to predict at the outset whether or not a particular situation will arise. They constitute the theory of incomplete contracts.

Originally developed by Oliver Hart,⁵⁵ who wanted to solve the problems of information asymmetry and moral hazard in order to understand the financial structure of companies from debt contracts, the theory of incomplete contracts was later further developed by the seminal papers of Grossman and Hart (1986), Hart and Moore (1990; 1998) and Hart (1975). The theory is based on resolving a deficiency and imperfection in information. It is not just a question of asymmetry as explained by the agency theory. This theory looks at the contractual relationships between issuers and investors in

⁵⁴ EFRAG: European Financial Reporting Advisory Group; ANC: French Accounting Standards Authority (*Autorité des Normes Comptables*); FRC: Financial Reporting Council.

⁵⁵ Oliver Hart received the Nobel Prize in 2016.

order to provide an ex-post response to a situation of ex-ante control. Two factors underpin this theory: the observable but unverifiable nature of the contract (for example, by a judge in the context of a legal act) and the absence of possible negotiation of the contract by a third party (as in the case of the over-the-counter (OTC) market).

Incompleteness is defined as the impossibility of predicting or even specifying in a contract all possible future situations (Chemla and Milone, 2017). While a conventional debt or an issue of ordinary shares falls within the definition of a complete contract, a hybrid debt allows the issuer – who makes the decision to issue it – to avoid any contractual disciplinary action (the absence of a covenant, for example) by not committing to the company's future profits nor to remuneration from the contract issued (as in the case of a perpetual subordinated note, for example). This refers to the well-known phenomenon of hold-ups, which leads to opportunistic behavior on the part of senior managers (Klein *et al.*, 1978).

Furthermore, the design of a complex financial instrument is still somewhat of a conundrum in the contingent allocation of ownership rights. Holding control rights (rights over explicit or non-explicit decisions specified or not specified in the contract) makes the holder of these rights the true owner of the company. This is indeed a problem of contingent control that ultimately remains in the hands of the issuer, assuming the issuing company does not go bankrupt. However, if a company were to fail, the most efficient process would be to convert the debt into shares or options (a puttable instrument) in order to sell it and become debt-free. As Chemla and Milone (2017) point out, the contract on which the financial instrument is based then becomes a tool for protecting the company from its creditors. It is this mechanism that is enshrined in Chapter 11 of the US Bankruptcy Code. For example, if senior management forecasts an unfavorable change in the company's financial structure, CBs make it possible to avoid the failure costs associated with a new debt issue. The issues raised by the incompleteness of hybrid contracts are, firstly, the failure to formalize remuneration in contracts and, secondly, the associated control rights. However, this allocation of voting rights⁵⁶ is also at the heart of financial regulation issues, in particular when it comes to regulating the level of equity of financial institutions in line with the Basel Agreements, for example (Hart and Zingales, 2011). In providing a response to the FICE DP, the IASB should have drawn inspiration from the work done on the incompleteness of contracts rather than trying to propose technical solutions to each "new case" of hybrid instruments encountered, ultimately

⁵⁶ The allocation of voting rights has a major influence on the distribution of control of a senior manager (issuer). In France, the Florange Law 2014-384 authorizes the doubling of voting rights. Vivendi's 2017 Registration Document states: "*The accounting treatment of the duration of the registration of nominal shares begins as of the date of entry into force of the Florange Law, i.e., 2 April 2014. As a result, as of 3 April 2016, Bolloré's shareholders will automatically benefit from double voting rights, as long as the conditions required by law are met.*"

resulting in a confusing text with significant consequences (around 120 billion hybrid securities classified as equities restated as debt) and without any conceptual basis.

3.2.2 From the Concept of Control to Broader Debt Governance

The control legally exercised by creditors over senior management is actually beneficial to shareholders over the long term, in line with market expectations (debt discipline). However, this coercive role concerns short-term debt much more than long-term debt or even debt that does not have a maturity, such as perpetual debt. This is proof that the violation of covenants only has negative effects on the share prices of issuing companies in the very short term. A re-examination of the agency theory – supplemented and modified – is required using the conceptual framework to account for the moderating role played by creditors in corporate governance (Bala, 2018).

The concept of control is a common thread in IFRS in most of the latest international accounting standards issued (IFRS 10, IFRS 15 and IFRS 16 in particular), and it is increasingly being used in preference to any risk/benefit-based analysis. When applied to financial instruments, the concept of control could have the advantage of refocusing the discussion on renewed theoretical frameworks such as the partnership theory as defined by Freeman (1984). This analysis would have been particularly relevant at a time when the IASB is interested in non-financial criteria and when defining a company's corporate purpose is undergoing major changes following the enactment of the PACTE Law in France. Furthermore, in the context of corporate governance based on legislation or codes of good practice, the concept of control could have the advantage of bringing together the organizational, financial and legal aspects of hybrid instruments.

The IASB's current model does not take into account the governance issues and subordination arrangements imposed by the legal aspects of hybrid securities. As an example, and in order to understand the shortcomings of IFRS where form takes precedence over substance in relation to perpetual debt,⁵⁷ we can examine the consolidated financial statements of Air France-KLM (2017 Registration Document).

Liabilities and Equity

(in millions of euros)

	Notes	2017	2016
Social capital	28.1	429	300
Praemium	28.2	4 139	2 971
Treasury stocks	28.3	(67)	(67)
Undated subordinated securities	28.4	600	600
Retained earnings	28.5	(2 099)	(2 520)
Total Equity (Part of the Group)		3 002	1 284

« In the first half of April 2015, the Group carried out a perpetual subordinated bond issue for a total amount of 600 million euros. These perpetual bonds carry an annual coupon of 6.25% and have a first redemption option in October 2020 at the issuer's option. They are recognized in shareholders' equity in accordance with the provisions of IFRS. This bond is subordinated to all existing or future Air France - KLM debts ».

⁵⁷ See the Vernimmen Letter (2018).

Financial Debts

(in millions of euros)

	2017	2016
Subordinated loan in Swiss Francs	315	349

« The amount of the subordinated loan was 375 million Swiss francs, or 315 million euros as of December 31, 2017. This loan is repayable at certain dates, at the Group's option, at a price between its nominal value and 101.25% (depending on the bond and the date of early repayment). This loan is subject to the payment of a coupon considered to be a fixed rate (5.75% on CHF 270 million and 0.75% on CHF 105 million). This loan is subordinated to all existing or future debts of KLM ».

The clauses provided for in the issued instrument blur the message in terms of interpreting and understanding the financial structure of companies. As pointed out by Quiry and LeFur (2018), “all that is required under IFRS is an increase in the interest rate paid by the issuer if it does not exercise its option to redeem early (usually after five years), so that, under IFRS, this income from debt can be recorded as equity”.⁵⁸

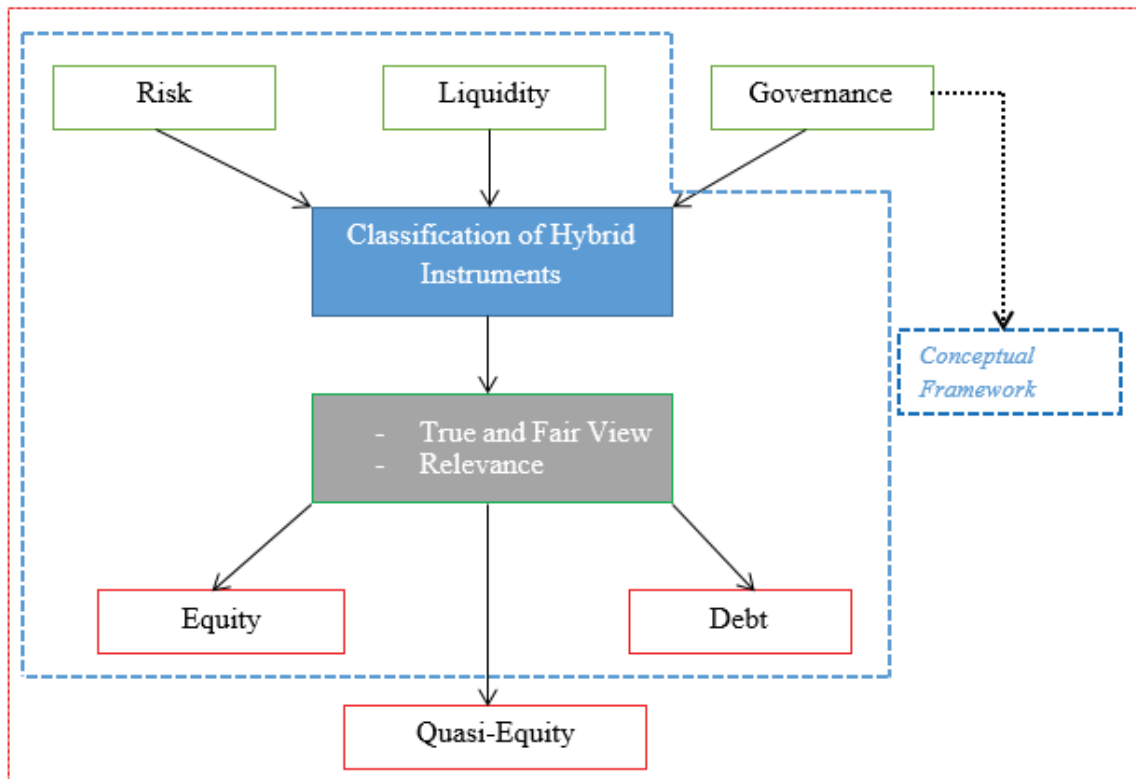
While the risk/liquidity approach pits issuers and investors against each other, applying the concept of control and the business model through governance would enable:

- the position of issuers to be linked to the main financial theories in which the IFRS conceptual framework is ultimately rooted (notably with the agency theory); this would be governance through equity.
- the debt structure to be sequenced, making it easier for investors and rating agencies to understand (by using the theory of incomplete contracts, ownership rights and incentives); this would be governance through debt.

By presenting the financial (accretive and dilutive effects of hybrid financial instruments on control, etc.), legal (voting rights, distribution and geography of capital, etc.) and tax impacts on a separate line in the issuer's balance sheet and justifying them in the Notes to the Financial Statements, and by applying a governance approach explicitly in the FICE DP and implicitly in the conceptual framework, it is possible to arrive at the architecture presented in Figure 1 below.

⁵⁸ Groupe Casino, 2017 Registration Document: “At the beginning of 2005, the Group issued 600,000 deeply subordinated perpetual bonds (TSSDI) for a total amount of €600 million. The bonds are redeemable solely at the Group's discretion and interest payments are due only if the Group pays a dividend on its ordinary shares in the preceding 12 months. The bonds pay interest at the 10-year constant maturity swap rate plus 100 bps, capped at 9%. In 2017, the average coupon was 1.71%. On 18 October 2013, the Group issued €750 million worth of perpetual hybrid bonds (7,500 bonds) on the market. The bonds are redeemable at the Group's discretion with the first call date set for 31 January 2019. They pay a coupon of 4.87% until that date, after which the rate will be revised every five years. Given their specific characteristics in terms of maturity and remuneration, the bonds are carried in equity for the amount of €1,350 million”. In the corporate financial statements, these amounts appear outside Equity, on a separate line in Other Equity, and the interest payable is shown under Other Financial Liabilities.

Figure 1 – Governance framework



Ahead of the FICE DP, it is regrettable that the international standard setter does not wish to propose a specific accounting framework for financial institutions. The prudential and regulatory aspects are certainly important and often pollute a debate that could take place within other forms of organizations. The regulators (ACRP, Basel Committee, etc.) advocate above all a quantification of the risks of instruments, without taking into account the strategic interest and consequences on the geography of capital (effect of accretion or dilution of capital), thus generating uncertainty regarding remuneration and the cost of capital. It is on this last point, however, that the debate on the classification of financial instruments takes on its full meaning.

4. Conclusion

The IASB's increasing complexity in classifying debt and equity instruments over the last few years through new standards, interpretations, various amendments, discussion papers, etc. makes reading consolidated financial statements confusing and cryptic – and inconsistent with other national accounting standards such as US GAAP. While the international standard setter has made use of certain aspects of financial theory through its conceptual framework and/or some standards (such as IFRS 10 with the agent/principal relationship), now is the time for it to revisit some of the broader elements of that same financial theory by drawing on aspects of institutional and organizational finance. It should adopt IAS32 and accept EFRAG's recommendations of November 2018 and require all hybrid instruments to be presented on a separate line, as is the case with the Other Equity heading in the French

chart of accounts. Rating agencies, investors and stakeholders would benefit both in form and substance. At the same time, this would allow the standard setter to revise its conceptual framework or require IAS32 and/or IFRS9 to provide a more accurate interpretation of financial contracts issued. As Fares (2005) points out, “*the approach in terms of incomplete contracts is becoming a new paradigm in economics. It can now be found in the analysis of the company’s financial structure*”. This theory of incomplete contracts is merely a continuity of the agency relationship, combined with the theory of ownership rights. In other words, it sheds more light on the trade-off in the debt/equity classification through the concept of control, while highlighting the theory of economic incentives proposed by Tirole (1999).

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Summary

At a time when all forms of organizations are going to have to exercise common sense by strengthening their equity positions following an increase in their debt levels as a result of the COVID-19 health crisis, but also following the application of the IFRS16 standard⁵⁹ from January 2019, the question of the distinction between debt and equity is more topical than ever. The challenge for the senior managers of the companies concerned will be to strengthen their equity position without losing control of the capital – the power – of their company. Given the boundless imagination of financiers for designing new and ever more complex financial instruments, the question of their classification, valuation and accounting recognition is a recurring issue for accounting standard setters.

The main user of these hybrid financial instruments today is still the banking and insurance sector. This sector is however subject to stringent regulatory and prudential obligations, which makes it impossible to compare the issues and uses of these securities with those of other industrial and commercial companies (ICCs). The combined weight of the supervisory authorities (ACPR, Banque de France, ECB, EBA, ESMA, EIOPA, etc.) has so far forced the accounting standard setter to adopt an audit-based approach through IAS 32, which involves using an accounting trade-off between the concepts of risk and liquidity in order to classify these instruments as debt or equity. While this approach is perfectly suited to the financial sector, it is less appropriate to other sectors for at least two reasons.

Firstly, the structure and format of the financial statements presented by ICCs is different to those of banks and insurance companies, particularly with regard to their balance sheet (statement of financial position). Between 2010 and 2018, we observed different trends in the financial structure of the top 120 French groups (SBF 120). While on average the CAC 40 companies increased their equity, this was not the case for the other companies, which recorded faster growth in their financial debt. However, the level of sophistication with regard to financial debt was higher for the CAC 40 companies, reflecting a more regular use of more complex financial products such as convertible bonds and subordinated perpetual bonds. While only 53% of the companies in the SBF 120 index used at least one hybrid instrument over the period under review, it should be noted that, on average, the weight of this instrument is relatively low in relation to the amount of equity and financial debt (with the exception of a few major industrial players such as EDF, Engie, Total, etc.).

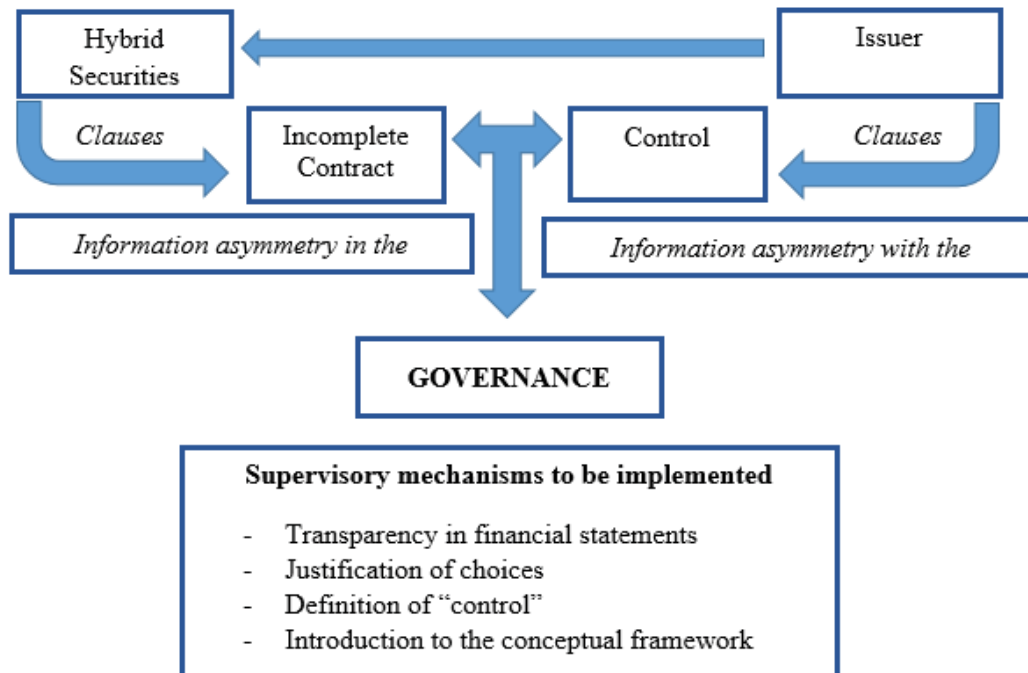
Secondly, we note in our study that the hybrid instrument most favored by French groups is still the convertible bond, in particular the OCEANE (bond convertible into

⁵⁹ IFRS16: Leases.

new or existing shares). It is also the most widespread in the world, in terms of both volume and the economic weight of the issuing countries (the United States, Japan, the United Kingdom, Germany and France). The diversity and complexity of this instrument make it impossible to generalize, particularly from a legal and tax standpoint, and lead to divergences and even inconsistencies in financial reporting at the international level. While from a tax point of view, we noted that the deductibility of interest on hybrid securities remains a determining criterion for issuers, from a legal point of view, it is more difficult to segment the use of these securities according to the jurisdiction in which they are issued. The academic literature therefore provided explanatory frameworks for the use of convertible bonds. While these securities' technical characteristics, which are based on specific clauses (option mechanisms, set-up mechanisms, etc.), have been welcomed by financial advisers/experts/intermediaries as they make them a "tailor-made" tool, it is above all the emergence of alternative theoretical explanations to neoclassical theory from the 1990s onwards that has been legitimized (Green, 1984; Mayers, 1988; Stein, 1992; Isagawa, 2000; etc.), even if their scope is often limited. The observation is then unambiguous: all these theories mention the concepts of information asymmetry, strategies for entrenching senior managers, control and relationship with power, and the incompleteness of the financial contract between issuers and investors. Ultimately, they all converge towards the concept of corporate governance.

Corporate governance will be the field – ahead of classification, valuation and accounting recognition – to answer the general research question of this project: **why resort to issuing and using hybrid financial instruments?** Rather than the criterion of risk or liquidity, which would require companies to analyze the instrument issued to classify it as debt or equity, it is the relevance, consistency and depth of its content that must take precedence. The financial, strategic and, above all, legal aspects of the security must be incorporated into the governance mechanisms – both for shareholders and creditors – so that the choice of accounting treatment for the instrument can be determined. The following diagram summarizes our research and presents our recommendations.

Synthesis - Recommendation



While the international accounting standard setting has made use of certain aspects of traditional financial theory in its conceptual framework and in some standards, perhaps now is the time for it to incorporate some of the broader elements of that same financial theory by drawing on aspects of institutional and organizational finance. This would imply adopting IAS32 and including EFRAG's November 2018 recommendations to include all hybrid instruments on a separate line in the balance sheet (by adding, for example, a separate line under Other Equity or Other Hybrid Securities). Furthermore, the accounting standard setter could improve its conceptual framework by defining, prescribing and explaining the concept of "control", originating from the theory of shareholder governance, thereby extending it to the governance of all stakeholders. Issuers of hybrid securities should be required to disclose in the notes to the financial statements the reasons and motivations behind the choices made in relation to financial instruments. Rating agencies, financial analysts, investors, shareholders, creditors, etc. would gain a better understanding of financial information, both in substance and in form.