

DRO

Deakin University's Research Repository

Fenech, Jean-Pierre, Fang, Victor and Brown, Rob 2016, How accurately can convertibles be classified as debt or equity for tax purposes? Evidence from Australia, *Review of law & economics*, vol. 12, no. 1, pp. 153-164.

DOI: [10.1515/rle-2014-0028](https://doi.org/10.1515/rle-2014-0028)

This is the published version.

©2016, Walter de Gruyter GmbH

Reproduced with the kind permission of the copyright owner.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30083245>

Jean-Pierre Fenech*, Victor Fang and Rob Brown

How Accurately Can Convertibles be Classified as Debt or Equity for Tax Purposes? Evidence from Australia

DOI 10.1515/rle-2014-0028

Abstract: The *New Business Tax System (Debt and Equity) Act* established a set of criteria by which convertible securities could be classified as “debt-like” or “equity-like” for tax purposes. Using data on 256 convertible issues made in Australia between 2001 and 2012, we show that there is a strong relation between, on the one hand, a convertible’s *ex ante* classification determined at issuance using the tax criteria and, on the other hand, its *ex post* classification based on the conversion premium at maturity. We conclude that the criteria have been an efficient means of classifying convertibles. We also find an industry effect where debt-like convertibles are more likely to be associated with the resources, metals and mining firms, whilst equity-like are mainly issued by the finance sector. This finding is consistent with the solution to a finance-sequencing problem in the former case, and the impact of capital adequacy regulation in the latter.

Keywords: tax classification, convertible securities, misclassification

1 Introduction

Many jurisdictions have attempted to define a mutually exclusive basis on which to classify convertible securities as either debt-like or equity-like for the purposes of taxation and/or the preparation of financial statements. In 2001, new legislation was enacted in Australia which specified a detailed set of tests to classify individual issues of convertible securities as being either “debt-like” or “equity-like” for taxation purposes. In this paper, we examine empirically the ability of this system to distinguish between those issues that most resemble debt and those that most resemble equity. Finally, we also address the

*Corresponding author: Jean-Pierre Fenech, Department of Banking and Finance, Monash University, Caulfield East, Vic 3145, Australia, E-mail: jeanpierre.fenech@monash.edu

Victor Fang, School of Accounting Economics and Finance, Deakin University, Burwood, Vic 3125, Australia, E-mail: v.fang@deakin.edu.au

Rob Brown, Department of Finance, Melbourne University, Parkville, Vic 3010, Australia

additional flexibility afforded by convertibles in assisting certain industries to structure their funding optimally between debt and equity.

Typically, attempts to classify convertibles have favoured economic substance over legal form (Wood, 1999; Orow, 2003). From a tax perspective, the intention has generally been that every taxpayer should be bound by the financial reality of their transactions – that is, by the economic substance of the transactions – rather than by their legal form (Marston, 2006). Courts have regularly invoked this doctrine in cases where taxpayers have entered into “artificial” schemes designed to exploit taxation advantages. Examples of such advantages include claiming expenses as tax deductible in circumstances where a deduction is not justified by the economic substance of the transaction, and deferring assessable income to a later date (Mackenzie, 2006). Where the economic substance and legal form of a transaction have conflicted, courts have been willing to override the legal form and deny the taxpayer the intended tax benefits. Such a decision is, of course, possible only if the court is able to identify the economic substance. This phenomenon is even more relevant in Australia, where there is a large concentration of resource and banking firms, with different capital structure requirements.

An important reason to prefer substance over form is that the application of this principle leads to a more efficient tax system. Greater efficiency is achieved by establishing a tax-neutral system (Orow, 2001b), a hallmark of which is that similar economic circumstances should receive similar tax treatments. In the case of convertible securities, the implication is that where the economic substance of a security is equity-like (debt-like), it should receive equity-like (debt-like) tax treatment.

Canada and the US have adopted different approaches to this classification issue. In Canada, the government sought in 1997 to minimize tax arbitrage using preference shares by introducing new rules detailing the characteristics required for a security to qualify as a preference share (Edgar, 2000). In the US, a “facts and circumstance” approach has been adopted, in which each security’s classification is based on its own economic substance on a case-by-case basis. This approach entails the tax authorities taking taxpayers to court, and arguing that the principle of substance over form has been breached. An advantage of such an approach is that it gives the courts flexibility in dealing with innovative instruments as they mutate and evolve. A disadvantage is that court rulings may be inconsistent and at times ambiguous (Bourke, 2004).

Australia also has tackled the classification of convertible securities. By the late 1990s, the convertible market in Australia consisted mainly of income securities, which are issued in perpetuity and for which all dividend payments are tax deductible. In 1999 alone, income securities worth \$5.64b were issued across

different sectors, mainly resource and banking firms. These securities were classified as equity for financial reporting purposes and as debt for tax purposes (Mackenzie, 2006). Hence, by issuing income securities, firms were able to report lower leverage but concurrently benefit from the tax deductibility of debt. Resource and mining firms were acquiring funding represented as equity and banking firms were raising liabilities satisfying their prudential capital requirements, with most securities in either case attracting a tax deduction. This inconsistency caught the Treasury's attention. The Ralph Review recommended a series of measures and subsequently the *New Business Tax System (Debt and Equity) Bill* 2001 was enacted.¹ The new approach included a detailed set of tests to be applied to a convertible security at the time of issue to classify the security as either debt-like or equity-like. The security then maintains this classification regardless of subsequent events. Orow (2001a), Bourke (2004), and D'Ascenzo (2010) assert that the legislation results in a consistent and unambiguous framework for classifying convertibles. Abbey (2002), and Mackenzie (2006) disagree with such a claim but do not present empirical evidence.

The immediate impact of the new tax rules saw the demise of income securities, only to be replaced by more complex convertible financial instruments, including StEPS,² CARS,³ SAINTS,⁴ POWERS⁵ and FLIERS,⁶ all of which are currently traded on the Australian Securities Exchange. It is now more than a decade since the new legislation was enacted and it is timely to assess empirically its ability to classify convertibles according to their economic substance. Furthermore, more resource and mining firms have sought funding through issuing convertible securities to satisfy their capital expenditure requirements. Whereas, the banking sector has also been active in issuing convertibles within the confines of their capital prudential obligations.

We study a sample of 256 convertible securities issued in Australia between 1 July 2001 and 31 December 2012. We examine the efficiency of the 2001 tax rules by investigating the association between, on the one hand, the classification allocated at the time of issue and, on the other hand, the classification of the security on its maturity date. We refer to these as the security's *ex ante* and *ex post* classifications. Of the 155 issues classified *ex ante* as debt-like, 150 (97%) subsequently

¹ The Bills Digest No. 68 2001–02 may be downloaded from: <http://www.aph.gov.au/binaries/library/pubs/bd/2001-02/02bd068.pdf>

² Stapled exchangeable preferred securities.

³ Convertible adjustable rate securities

⁴ Subordinated adjustable income non-refundable Tier 1 securities

⁵ Preferred to ordinary with exchange and reset securities.

⁶ Floating IPO exchangeable reset securities.

maintained this classification *ex post*; of the 101 issues classified *ex ante* as equity-like, 82 (81%) maintained this classification *ex post*. The significance of these results is confirmed using a chi-square test. We conclude that, overall, the classification allocated to the securities at issuance is systematically and reliably related to their economic substance, as validated by their *ex post* classification. We also find evidence of an industry factor playing a key role in security selection. Firms in the resource, metals and mining industries are more likely to issue debt-like convertibles, whilst banks are more likely to issue equity-like convertibles.

The rest of the paper consists of the following: Section 2 presents the development of our hypotheses; Section 3 describes our data; Section 4 reports our results; and Section 5 concludes the study.

2 Development of hypotheses

Convertibles are typically regarded as hybrids of debt and equity. Depending on the details of the security's design, a convertible may fall anywhere on a continuum from almost pure equity to almost pure debt. However, both the determination of tax liability and the determination of accounting treatment generally require that a convertible be classified as either debt-like or equity-like. Typically, the objective has been to classify convertibles according to their "economic substance"; that is, according to the objective facts of their design, rather than their legal form.

Given that Australian firms are more inclined to be industry concentrated within the resource and banking sector, in 2001 legislation was enacted providing a detailed set of tests to decide whether a convertible security should be classified as "debt-like" or "equity-like" for tax purposes. These tests involve features such as the term of the security, whether the issuer's obligations are contingent on firm performance and whether the return is substantially more likely to be positive rather than negative. A schematic overview of the classification system included in the legislation is provided in Appendices A and B.

The tests are applied at the time a convertible security is issued, and are intended to capture its economic substance. To determine whether these tests in fact classify according to economic substance, we require an objective, quantitative measure of a convertible's "economic substance". Following Sarkar (2003), Kleidt (2005), Veld, Longarski and Horst (2006) and Veld and Zabolotnyuk, (2009), we use the conversion premium for this purpose. The conversion premium (*CP*) is:

$$CP = CV - FV \quad [1]$$

where

CV is the conversion value, which is defined as the product of the security's conversion ratio and the current stock price and

FV is the face value of the security.

The logic underlying this measure is that a convertible classified as debt-like (equity-like) should be less (more) likely to have negative (positive) conversion premiums. This logic does not preclude the possibility that a convertible's *ex ante* classification will not match its *ex post* classification. A convertible could be "correctly" classified *ex ante* as debt-like (equity-like) yet be classified *ex post* as equity-like (debt-like). The logic does, however, imply that over a sufficiently long time period⁷ there should be a strong association between a security's *ex ante* and *ex post* classifications. Hence, our central hypothesis is:

H₁: There should be a strong association between convertibles' ex ante and ex post classifications as debt-like and equity-like.

Carlin and Finch (2005) and Suchard and Singh (2006) argue that the Australian convertible market is industry-specific in that firms in different industries have different motivations for issuing convertibles. Mayers (1998) suggests that firms facing a sequence of potential financing requirements would find that issuing debt-like convertibles is a cost-effective solution. Debt-like convertibles economise on issue costs, while controlling the overinvestment problem. If the investment option turns out to be in-the-money, the convertible bonds will be converted to equity, leaving funds within the firm for new investments and thus saving on subsequent issue costs. Conversely, if the investment option turns out to be out-of-the-money, no conversion occurs, and funds are returned to bondholders through redemption. Resource, metals and mining firms are typical cases of firms with sequential financing needs, because further development of a mine is needed only if the mineral extract proves profitable. Therefore, we predict that firms operating in the resource, metals and mining industry will have a higher propensity to issue debt-like convertibles than other firms. Hence, we test the following hypothesis:

H_{2A}: Debt-like convertibles are more likely to be issued by resource, metals and mining firms than by other firms.

⁷ While there is, of course, no precise definition of "sufficiently long", reliability is increased if the sample period includes periods of stable, rising and falling stock prices.

Banks are in a very different position. Regulations governing the capital requirements of banks provide a motivation for banks to seek Tier 1 (equity-like) regulatory capital (Resende, Dib and Perevalov, 2010; Roger and Vlcek, 2011). Hence, we predict that firms operating in the finance industry are likely to find attractive the issuance of equity-like convertibles, so that, after the maturity date, the capital is retained as straight equity. Hence, our final hypothesis is:

H_{2B}: Equity-like convertibles are more likely to be issued by financial firms than by other firms.

3 Data

The initial sample consisted of all convertible securities issued in Australia between 1 July 2001 and 31 December 2012. The year 2001 is chosen as the start date since it is the year when the new classification rules came into effect. In the first four years of our sample period, stock prices in Australia were reasonably stable, with the S&P/ASX 200 index averaging about 3,000 points over the period from 2000 to 2004. A strong price increase followed, with the index reaching a peak of about 7,000 in October 2007, after which there was a downward trend in prices throughout 2008 and into 2012. Hence, we have a mix of stable, bullish and bearish markets throughout our sample.

Between 2001 and 2012, 301 issues of convertible securities were made. Information⁸ regarding each of these securities was downloaded from the Thomson Reuters database Connect 4, particularly the “*New Issue*” module. This consists of each firm’s official document sent to the ASX, describing the security’s characteristics. Datastream was used to find the security’s market price on conversion/maturity. From this initial sample, we excluded 32 securities which had not matured at the time of data collection, 7 securities for which information was missing and 6 securities which were mandatory convertibles. The last group was excluded because we considered these securities to be virtually indistinguishable from straight equity. The final sample consists of 256 convertible securities, of which 155 are classified *ex ante* as debt-like and 101 as equity-like. We modelled the security classifications on the tax provisions, particularly on Subdivision 974-B and 974-C of the ITAA 1997. Appendices 1 and 2 provide a schematic representation of the classification tests. Since some

⁸ Security information includes the dollar value of the issue, conversion ratio, face value, maturity, redeemable by issuer/investor or both and cost in terms of coupon or dividend.

Table 1: Descriptive statistics of the sample.

This table reports descriptive statistics for the sample of 256 convertible security issues for the following variables: *COST*, providing a return in the form of fixed periodic payments, generally on a semi-annual basis; *ISSUE*, the dollar value of the issue; *MAT*, the number of years the time from the issue date to maturity/conversion. The data period is 1 July 2001 to 31 December 2012.

	MIN	MAX	MEAN	MEDIAN	SD
<i>COST</i> (%)	4.25	10.23	6.33	5.50	1.82
<i>ISSUE</i> (\$ m)	0.10	750	93.45	95.83	168.10
<i>MAT</i> (Yrs)	3.52	11.15	5.67	4.50	2.53

Note: MIN, minimum; MAX, maximum; SD, standard deviation.

provisions may require a subjective judgement, we validate our security classification with the firm's ability to attach franking credits. Hence, all convertibles classified as equity-like (debt-like) may (may not) attach franking credits. Descriptive statistics of the final sample are provided in Table 1.

Issue size varies enormously, ranging from as little as \$100,000 to as much as \$750 million. Many of the larger issues were made by banks. At 5.67 years, the average maturity corresponds to that a medium-term security.

4 Results

The main results are shown in Table 2.

Only 5 of the 155 issues (3.2%) that were initially classified as debt-like were subsequently classified as equity-like, while only 19 of the 101 issues (18.8%)

Table 2: The association between classification at issuance and subsequent conversion premium.

The table reports the association between the *ex ante* and *ex post* classifications. The *ex ante* classification is determined at issuance using the criteria legislated in 2001. The *ex post* classification is determined by the sign of the conversion premium: positive (negative) indicates equity-like (debt-like). The conversion premium is the conversion value minus the face value of the convertible.

<i>Ex ante</i> Classification	<i>Ex post</i> Classification		Total
	Debt-like	Equity-like	
Debt-like	150	5	155
Equity-like	19	82	101
Total	169	87	256

that were initially classified as equity-like were subsequently classified as debt-like. That is, overall, 232 of the 256 issues (90.6%) maintained their *ex ante* classification. The chi-square statistic is 165.67, indicating statistical significance at the 1% level. The evidence therefore gives strong support to our first hypothesis and we conclude that the 2001 Australian classification system is able to classify convertible issues with a high degree of reliability.

Our second hypothesis is that debt-like convertibles will be associated with the resource, metals and mining industry, while equity-like convertibles will be associated with the finance industry. To test this hypothesis, in Table 3 we classify the securities into debt-like and equity-like, using both the *ex ante* and *ex post* classifications.

Table 3: Debt-like and equity-like issues by industry.

The table reports *ex ante* and *ex post* classifications by industry. The *ex ante* classification is determined at issuance using the criteria legislated in 2001. The *ex post* classification is determined by the sign of the conversion premium: positive (negative) indicates equity-like (debt-like). The conversion premium is the conversion value minus the face value of the convertible.

Industry	Panel A:		Panel B:	
	<i>Ex ante</i> Classification		<i>Ex post</i> Classification	
	Debt-like	Equity-like	Debt-like	Equity-like
Resource, metals and mining	70	10	77	3
Finance	2	37	0	39
Other*	83	54	92	45
Total	155	101	169	87

Note: * *i. e.* Neither resource, metals and mining nor finance.

Using the classifications at issuance (Panel A), it is clear that debt-like convertible issues are associated with the resource, metals and mining firms, while equity-like issues are associated with financial firms. The chi-square statistic for Panel A is 74.47, which is significant at the 1% level.⁹ Panel B figures result in a similar conclusion. Our results therefore provide strong support for our second hypothesis, which in turn is consistent with the choice of convertible design being based on the specific needs of different industries.

⁹ We also performed two 2×2 contingency table tests, the first for resources, metals and mining against the sum of finance firms and “other” and the second for finance firms against the sum of resources, metals and mining and “other”. In both cases, results were significant at the 1% level.

In terms of policy implications, the tax classification criteria legislated in 2001 are generally objective and provide clarity for issuers and investors. Our empirical findings indicate that the criteria produce classifications at issuance that generally align with their subsequent classification, suggesting that the criteria capture the “economic substance” of convertible issues, which in turn contributes towards achieving the desirable objective of tax neutrality. Moreover, the industrial pattern of convertible issues is consistent with the predictions of finance theory, giving further credence to the classification criteria. Hence, we conclude that the tax classification system is working well. It is also our view that when accounting standard setters, as well as taxation authorities in other jurisdictions, review their current classification rules, they would do well to look to the Australian tax criteria for useful insights.

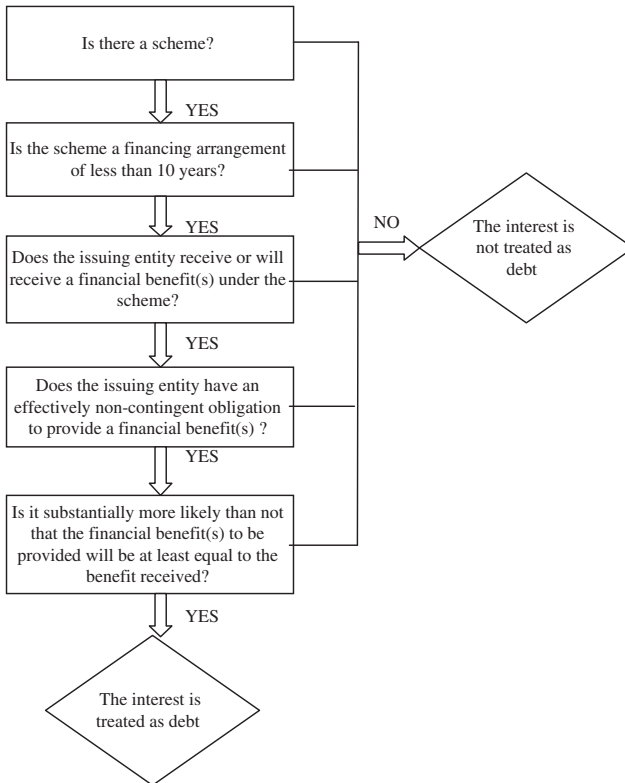
5 Conclusion

Using data on 256 convertible issues between 2001 and 2012, we find that the tax rules introduced in 2001 efficiently classify convertibles in line with their economic substance. There is a strong association between the ex ante and ex post classification of convertibles as debt-like or equity-like. Hence, the new rules are likely to have reduced distortions in the convertible market and reduced ambiguity. We also find a distinct industry pattern in the choice between debt-like and equity-like issues. The resources, metals and mining industry is more likely to issue debt-like convertibles. This choice is consistent with these issuers facing sequential financing decisions. The finance industry is more likely to issue equity-like convertibles. This choice is consistent with a response to the regulatory framework applying to banks’ capital adequacy. We conclude that the classification criteria are working well and contributing to the achievement of tax neutrality.

Appendix A: Determination of debt-interests

Appendix A details the principal rules determining whether an interest is debt-like. The debt test is set out in *Subdivision 974-B* of the *ITAA 1997*. For a security to qualify as debt-like, both a scheme and a financing arrangement are necessary. A scheme is in line with *Section 995-1* of the *ITAA 1997* and refers to any arrangement, scheme, plan, proposal, action, course of action or course of conduct, whether unilateral or otherwise. A financing arrangement is specifically defined and generally relates to those arrangements entered into by the

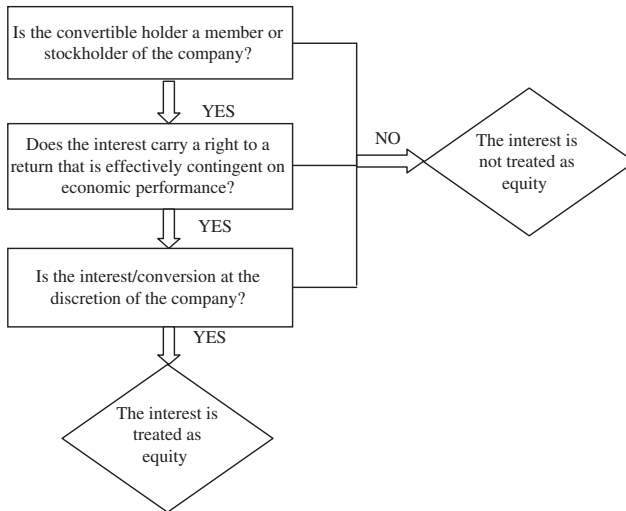
issuer to raise finance or to fund another scheme that is a financing arrangement. Furthermore, a financial benefit making up an economic transaction is required and the benefit must be independent of the firm's economic performance, i.e. the payment of coupons must be made irrespective of the firm's economic performance. Moreover, the maturity of debt-like securities must be less than ten years and redemption/conversion to common stock may be carried out by either the issuer or investor.



Appendix B: Determination of equity-interests

Appendix B sets out the main rules which determine whether an interest is equity-like. The equity test is set out in Subdivision 974-C of the ITAA 1997. A member or a stockholder is defined as an entity holding an interest in the company where the return to the holder of the interest depends on the economic

performance of the company – this is clearly an equity-like convertible. Furthermore, if the issuer only retains discretion in regards to conversion, then another feature of the equity-like test tax provisions is satisfied. The security may also be issued in perpetuity. It is conceivable that a security could pass both tests of debt and equity. The rules stipulate that in such cases the security is deemed to be a debt interest.



References

- Abbey, P. 2002. "Aspects of the Debt and Equity Tests," 4, 7 *Journal of Australian Taxation* 269–281.
- Bourke, G. 2004. "Drawing a Sharp Line in the Sand of the Debt/Equity Desert – Division 974 – Oasis or Mirage?" 33 *Australian Tax Review* 24–39.
- Carlin, T., and N. Finch. 2005. "The rise and impact of hybrid securities in Australian listed corporations," Macquarie Graduate School of Management, Working paper, 2005–22.
- D’Ascenzo, M. 2010. "Agenda Item III: Taxation of the Financial Sector—Instruments and Intermediaries. 3rd International Tax Dialogue (ITD) Global Conference," http://www.itdweb.org/financialconference/documents/Australia_TAXATION_OF_THE_FINANCIAL_SECTOR.pdf
- Edgar, T. 2000. "The Taxation of Financial Arrangements (TOFA) Proposals: A Modest and Defensible Agenda for Reform (2000) 23(2)" *University of New South Wales Law Journal* 288–298 and (2000) 6(2) *University of New South Wales Law Journal Forum* 28–33.
- Kleidt, B. 2005. "The use of convertible securities, market timing, investor rationing, signalling and asset restructuring," Dissertation European Business School Destrch-Winkel.
- Mackenzie, G. 2006. "Taxation as a Driver for Designing Convertible Securities," 1 *Journal of Applied Research in Accounting and Finance* 1541–1577.

- Marston, C. 2006. "The Accounting and Taxation Regulation of Hybrid Securities," *24 Company and Securities Law Journal* 186–194.
- Mayers, D. 1998. "Why Firms Issue Convertible Bonds: The Matching of Financial and Real Investment Options," *13 Journal of Financial Economics* 187–221.
- Orow, N. 2001a. "Tax Treatment of Debt Instruments without Fixed Right to Redemption," *International Bureau of Fiscal Documentation*, July/August, 208–217.
- Orow, N. 2001b. "Reform of the Taxation of Financial Arrangements," *International Bureau of Fiscal Documentation*, November/December, 320–326.
- Orow, N. 2003. "Transformation of the Business Tax System," *International Bureau of Fiscal Documentation*, January/February, 18–23.
- Resende, C., A. Dib, and N. Perevalov. 2010. "The Macroeconomic Implications of Changes in Bank Capital and Liquidity Requirements in Canada: Insights from the BoC-GEM- FIN," *Bank of Canada Discussion Paper* 16.
- Roger, S., and J. Vlcek. 2011. "Macroeconomic Costs of Higher Bank Capital and Liquidity Requirements," *International Monetary Fund Working Paper* 11/103.
- Sarkar, S. 2003. "Early and Late Calls of Convertible Bonds," Theory and Evidence," *27 Journal of Banking and Finance* 1349–1374.
- Suchard, J., and M. Singh. 2006. "The Determinants of the Convertible Security Issuance Decision for Australian Firms," *14 Pacific-Basin Finance Journal* 269–290.
- Veld, C., I. Longarski, and J. Horst. 2006. "Why Do Companies Issue Convertible Bonds? A Review of Theory and Empirical Evidence," <http://ssrn.com/abstract=1401102>.
- Veld, C., and Y. Zabolotnyuk. 2009. "The Optimal Call Policy for Convertible Bonds: Is There a Market Memory Effect?" <http://ssrn.com/abstract=1490926>.
- Wood, R. 1999. "The Taxation of Hybrid Financial Arrangements," *47 Canadian Tax Journal* 49–80.