Topic: MPF_AFIN Finance (basics)
Lecturer: Luděk Benada

Debt equity swap in France

Student: Maume Fabian
Učo: 426897
Date: 29th October 2013

Foreword

Small figures between brackets like [1] show what are the sources of the information previously said. You can find the numbering of the sources page 10 and 11.

Decimal part of rate (tax rate) are written with a fraction in superscript. For example $33.^{1/3}\%=33.33\%$

Introduction

Debt equity swap is a process where:

-There are 2 companies A and B

-A is a supplier of B

-A will change a receivable from the company B against a part of B's equity

-In this paper we will call A either Investor or creditor and the company B borrower or debtor

So concretely, in this process A the operation will change a short term financial asset (receivable from the company B) into a long term financial asset (some equity) So this kind of operation will have a big impact on the cash flow.

However this kind of operation can be interesting in some cases. French low for instance allow debt's equity swap only in the case that a company B has some financial problem and risk to run bankruptcy.[1] The process was for instance use by Veolia Transdev to reduce its debts in 2012. [2]

Debt equity swap is a strictly regulated process. As the legislation about it change from one country to the other, we will use French legislation as framework for this paper. French law about that this process are inspirited by American law but is less flexible. [3]

In This paper we will first have a look to the impact of the process on cash flow for both companies. Then we will see the impact on the long term. In last part we will see how debt equity swap can be use to get a leverage effect and the risks linked with it.

Table of contents

The process and it impact on cash flow:

Investor side

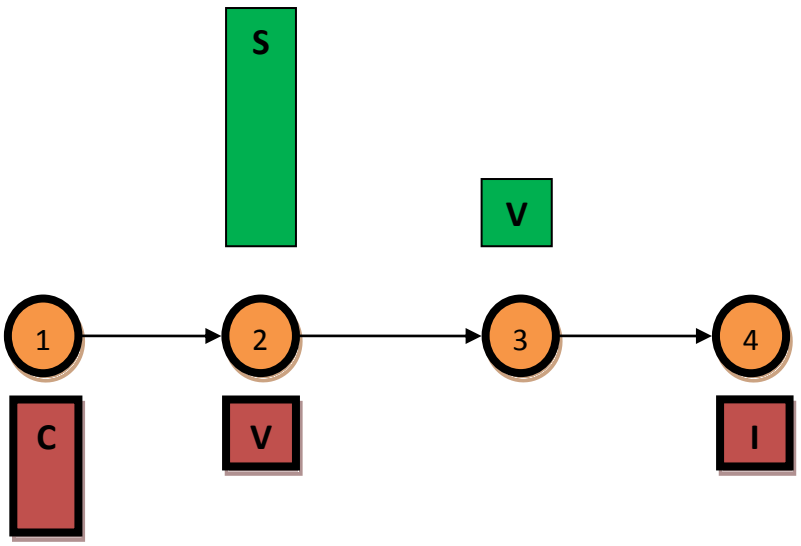
The process of debt equity swap will take place in 4 stages:

1: First of all, the supplier has to produce what is going to be sold. This action is generating cost (C). According duration of production cycle the expenses linked to those cost need usually to be paid more or less far from the sale. So those expenses can need generate a need of working capital.

2: Secondly the supplier will sell its product, against a receivable. The sale generate a revenue equal to S=C+C*m where m is the margin rate applied but the supplier. As the sale is paid against receivable it do not yet produce a positive impact on the cash flow. At the end of the month were the sale happen the supplier as to pay the value added taxes (V) [4] [5]. This operation reduce the cash of the supplier.

3: when the debtor start to have difficulty and start a process of debt restructuration, the supplier has the right to get back the valued added tax paid on the sale. However this payback only appear at the end of the month when the VAT is computed. [6]

4: At the end of the year the company will have to paid tax on the profit generated by the sale. The imposition rate on profit is of $33.^{1/3}\%$ in France [7] So the investor will have to paid $C*m*33.^{1/3}\%$ of taxes. It is possible since to devaluate the action hold by the company, which allow reducing the profit and by the way the tax. [8] Regarding the cash flow the impact of income taxes is a bit complicated, has taxes on profit are paid in 5 time: The company should paid four advances each equal to ¼ of previous year tax, with an compensation at the end of the year after computation of the real result [9]



To sum up on the full period the investor will decrease is cash by: $C+C*m*33.^{1/3}\%$. In addition to this the investor will have to support the working capital linked with the value added taxes. On the other hand the investor get an equity of the borrowing company for a value of C+C*m

Borrower side

On the borrowing side:

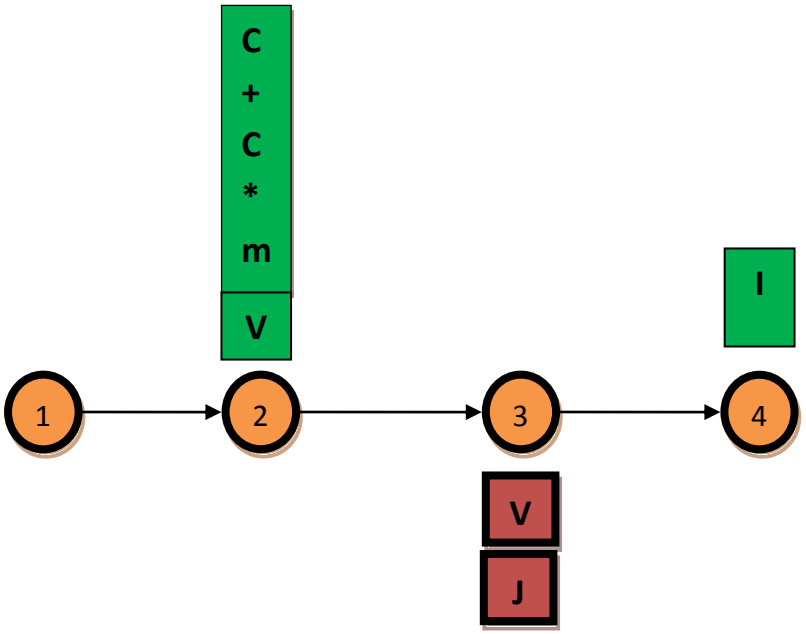
2: The sale will increase the cost of the company by C+C*m, so it will have an impact on the income tax at the end of the year. This does not impact directly the cash flow as the sale is paid with a trade liability. However the borrowing company won't have to withdraw cash for the product or services provided by the investor. This saving of expense can be saw as an increase of the cash by C+C*m. By example if the investor company is selling a product, it will be valued in the balance sheet of the borrowing company at a value of C+C*m.

2 : The sale will increase the among of deductible value added taxes. This will have a positive impact on the cash flow at the end of the month. However if the company has economics difficulty its input VAT can be lower than the deductible one. In the case the company cannot claim a payback of the VAT, the company just have a credit to withdraw to its VAT due amount on next month. [10]

3: When the borrowing company will start the procedure to restructure its debt, it will have to pay back the VAT connected with the sale at the end of the month (as the investor will get the VAT back at the same time).

3: The borrowing company is going to increase its capital, and the investor company will subscribe to it, by canceling its receivable. The fact to increase capital is generating some cost (J). In France this cost is of 350€ for the company with a capital smaller than 225 000 and 500€ over it. [11] [12]

4: At the end of the year the company will reduce it income taxes by (C+C*m)*33,$^{1/3}$%. The fact to increase the capital does not impact the income tax. [13] But as the company register the cost C+C*m, its income will be reduced by this amount. However if the company as economical problems it twill can have a negative economics result and so do not have any income tax to pay.



To summarize on the overall period the borrowing company will increase its cash by C+C*m+[(C+C*m)*33,$^{1/3}$%]-J (the cash increase generated by the income tax reduction was put

between [] as the reduction may not happen in case of negative economic result) . The borrowing company can also take advantage of treasury surplus generated by the VAT.

Solvability of the borrower

Thanks to the debt equity swap the borrowing company as increase its cash flow. But it is not the only positive effect on the solvability of the borrower. In fact the operation will also increase the equity of the borrower by C+C*m. And one important ratio to asset solvability is the debt/equity ratio:

$$= \frac{\text{Total Liabilities}}{\text{Shareholders Equity}} \quad [14]$$

The fact to increase the equity will lowering this ratio and then reduces the risk of bankruptcy, and increases the possibility to raise funds. [15]

Case where the investor is a bank

Normally all company which hold a liability on the borrowing company can use a the debt equity swap. So what happen if a bank use it?

We told that investor cash flow reduce by C+C*m*33.$^{1/3}$%. In the case of a loan m is equal to the interest rest and C to the initial amount of money borrow.

Regarding the borrowing company the situation will be a bit changed as the cost generated by a loan is only the interest. So to follow our notation the cost will be C*m. As the result the borrowing company can only reduce it income tax by C*m*33.$^{1/3}$%.

Moreover at the time of the sale the borrowing will only get C amount of money from the loan. The cost of interest will be generated afterword. As the result the positive impact on the cash flow will only be C+[C*m*33.$^{1/3}$%]-J

Impact on long term

Financial exposure

In the process the investor change a liability against on equity, and those financial assets do not lead to the same risks. Liabilities are safer as in case of bankruptcy the liabilities' owners should be paid before the equity's owners.

Moreover some companies have a legal form where equity's owners are responsible for all the liabilities. Concretely if the company is not able to pay back the liability the shareholder will have to pay for it.

In French law the article L626-5 of trade law, allows debt equity swap for any kinds of legal form [16]. But it is quite obvious that in reality it will only occur with companies with limited liability responsibility.

Control of the company

As the debt equity swap as an impact on equity it will change the power division between equity's owners. In the USA where the debt equity swap is more flexible than in France, it is possible to use the process to take over a company. This strategy cold "loan to own" consists in buying liabilities on a company on secondary market, to after convert them into equity. [17]

"Loan to own" strategy is however forbidden in France. In fact it is against an important concept of French business law: the "*affectio societatis*". Concretely it means that equity's owner of a company wish to work together. As consequences of this principle the borrowing company can chose which supplier can change its liability to equity.[18]

To protect itself from being taken over the borrowing company, can also exchange the liability against equity which do not have decision power. In fact the articles L. 228-35-3, L. 228-35-11, L. 225-122, L. 225-126 of French law allow to issue non-voting stock, which are shares without decision power. [19] To offset their lack of power the non-voting stock, give right to higher dividend than normal stock.

Return to equity

As the equity increased it can reduce the return to equity. This will be especially true if the company is issuing non-voting stock: as those stocks offer more dividend, less dividend will be left for former owner will be lower.

However in the process the borrowing company increases its cash, and this surplus of cash can be use for investment. So when an investor chooses to exchange its liability against equity he has to asset if the surplus of cash offered, will allow the borrower to make its business grow. We are really here in a typical dilemma of investment.

The dilemma will be a bit more complex than a standard investment situation, as the investor's company has already some financial exposure with the borrower (with the receivable). The potential loss of the receivable in case of the borrowing company runs out bankruptcy, can motive the investor to use the debt equity swap.

Debt equity swap a lowering tool?

The lowering coefficient

Now let's analyze one case which is not allowed by the French law: using debt equity swap even if the borrowing company do not have financial problems. In the case the VAT has to be paid, so the cash of the investor will be reduce by the amount of the VAT: **(C'+C*m)*t**, where **t** is the VAT rate and **C'** the total cost without the cost of consumed products (as the consumed product will increase the deductible VAT, costs connected with consumed products do not increase the VAT connected with the sale). On the other side the VAT will increase the cash flow of the borrower by **(C+C*m)*t**.

To summarize the borrowing company will reduce its cash by **C+C*m*33.1/3%+(C'+C*m)*t**, and get a **C+C*m+(C+C*m)*t** of equity.

So we can see that there is a difference between the cash reduction and the equity acquired: C+C*m*33.1/3%+(C+C*m)*t - C+C*m+(C'+C*m)*t= C*m*66.2/3% + (C-C')*t. It mean that the company can invest its cash with a premium of **C*m*66.$^{2/3}$%+(C-C')*t**. The premium can be use as leverage effect.

This premium is increasing when the margin rate m increase and when the part of consumed products in the total cost increase (C-C'= cost of consumed products)

As the debt-equity process is based on a conversion of receivable the investor company needs to be a supplier of the borrower. So debt-equity swap could be an interesting tool for vertical integration.

Dilution of equity value

By increasing its margin rate m the company can increase it leverage effect. So there is a high temptation to do it, if the company can support the cash withdrawing needed to paid the income tax and the VAT.

However as we saw previously this would reduce the return to equity. So increasing to much the merging rate to increase the leverage effect would lead to a dilution of the return to equity, and so reduce the effective value of the investment.

Money Creation

In the case that the borrowing company is not in financial difficulty, it will be able to fully deduct the cost of the sale to its economic result and so reduce its income tax. Moreover the deductible VAT on the sale will increase its cash.

So the borrowing company will increase its cash by C+C*m+(C+C*m)*33.$^{1/3}$%+(C+C*m)*t-J. If we compare it to the cash withdraw for the investor (C+C*m*33.$^{1/3}$%+(C'+C*m)*t) we can see a difference:
C+C*m+(C+C*m)*33.1/3%+(C+C*m)*t -J- C - C*m*33.$^{1/3}$% -(C'+C*m)*t = **C*m + C*33.$^{1/3}$% + (C-C')*t-J**

The surplus of cash for the withdrawer is the result of some money creation process. The amount of money created will mostly depend on C as m, t and 33.1/3% are lower than 1, and J is a constant (for a given size of company). C which is the cost of the sold product or services for the investor is directly connected with the amount of the receivable which is going to be converted; concretely C give use an indication about the size of the operation.

The money creation can also be increase by an higher lever of margin (m) of by an higher part of consumed products in the total cost (C-C'= cost of consumed products).Those variable will increase the intensity of the money creation for a given amount.

The money creation can also be increased if the investor sold the equity on the secondary market. In fact as we saw the investor get an equity valued at **C+C*m*33.1/3%+(C+C*m)*t** for a cost of **C+C*m+(C'+C*m)*t** . So one again we have a money creation of **C*m*66.$^{2/3}$%+(C-C')*t**

Systemic risk

Last but not least: if a company is massively using debt equity swap to invest in different companies it can lead to systemic risk. Imagine a company A which has invested in 100 different companies with this tool, what would happen if the company A run out Bankruptcy?

All the equities' hold by the company A will be sold. This can affect the financial stability of the 100 companies where A has invested.

This can be particularly problematic if some of the companies where A as invested, have a continuous quotation of stock. The sell of shares owned by A can make the quotation fall. And if quotation fall the debt/equity ratio will rise which should reduce access to borrowing.

Conclusion

To summarize debt equity swap is a process which allows improving the solvability of the borrowing company. This tool can be particularly interesting if the borrowing company has liquidity problem but no solvability problem.

French law allows debt equity swap only in the cases where the borrowing company has financial problems (either liquidity or solvability). However in any situations debt equity swap can also be use has leverage tool by the investor companies.

But a massive use of dept equity swap would lead to a systemic risk. Moreover the dept equity swap is creating money. So a wide use of it would generate inflation. Those risks explain the strong regulation about it.

However regarding the current situation it could be interesting to allow a wider use of the debt equity swap. In fact the part of bank loan in the financing of company is reducing in Europe (bank loan worth for less than half of the debt funding for European companies last year). [20] Moreover the preparation of Bale III standard also put bank under stress, it is estimated that European bank miss € 1 000 billion to reach the goal of LCR at one month=100% in 2015. This is particularly problematic in France where the LCR (liquidity coverage ratio) at one month is estimated fewer than 50%. [21] So we can expect a shortage of bank loan which can affect the economy.

European company on the other hand, hold huge cash surplus. According a report from McKinsey: European listed companies are holding €750 billions of cash excess in 2012. This amount is the equivalent of two times the gabs of private investment between 2007 and 2011. [22]

Making more flexible the legislation about debt equity swap could encourage the company to reinvest their cash. However the impact of debt equity swaps on the money creation and by the way on the inflation need to be estimated. The systemic risk should also be asset.

Sources

Main sources about légal issue: Marion F. (2011). *La conversion de créances en capital* (Master thesis, Université Paris II Panthéon- Assas, France). Retrieved on the 6th October 2013 from : http://www.lepetitjuriste.fr/wp-content/uploads/2011/10/La%20conversion%20de%20cr%C3%A9ances%20en%20capital.pdf

The abbreviation **MCLI** refer to this source

[1] MCLI from the page 17 to 31. Subchapter: *Un mécanisme controversé ou limité en cas de difficultés de la société débitrice*

[2] *CDC et Veolia s'entendent sur un partage à 60/40 de Veolia Transdev* (10/03/2012). Retrieved on the 5th October 2013 from : http://www.challenges.fr/entreprise/20121003.CHA1489/cdc-et-veolia-s-entendent-sur-un-partage-a-60-40-de-veolia-transdev.html

[3] MCLI page 40 to 44 Subchapter: *La conversion forcée en droit comparé*

[4] Website owned by French state to provide information about the VAT. Retrieved on the 5th October 2013 from : http://vosdroits.service-public.fr/professionnels-entreprises/F23566.xhtml

[5] E. Le Picard, M. Beurel (05/07/2013) *Récupération de la TVA en cas d'impayés.* Retrieved on the 19th October 2013 from : http://business.lesechos.fr//entrepreneurs/gestion-finance/dossiers/10028838/10028842-recuperation-de-la-tva-en-cas-d-impayes-34180.php

[6] Explanation from a law adviser company about the VAT in case of non solvable customer. Retrieved on Retrieved on the 19th October 2013 from : http://www.assistant-juridique.fr/tva_impaye.jsp

[7] Article 219 from French trade law. Retrieved on the 19th October 2013 from : http://www.legifrance.gouv.fr/affichCodeArticle.do?idArticle=LEGIARTI000026947264&cidTexte=LEGITEXT000006069577&categorieLien=id&dateTexte=20130101

[8] Article 39 from French trade law. Retrieved on 19th October 2013 from : http://www.legifrance.gouv.fr/affichCodeArticle.do?idArticle=LEGIARTI000027518420&cidTexte=LEGITEXT000006069577&dateTexte=20130607&fastPos=24&fastReqId=342111590&oldAction=rechCodeArticle

[9] Website on the French minister in charge of budget: Explanation of the process to paid income tax. Retrieved on the 6th October 2013 from : http://www.impots.gouv.fr/portal/dgi/public/popup?typePage=cpr02&sfid=503&espId=2&communaute=2&impot=IS

[10] Website on the French minister in charge of budget: Explanation of the process to paid the VAT. Retrieved on the 19th October 2013 from : http://www.impots.gouv.fr/portal/dgi/public/popup?typePage=cpr02&sfid=50&communaute=2&espId=2&impot=TVA&docOid=documentstandard_462&temNvlPopUp=true

[11] Website on the French minister in charge of budget: cost of the different legal publication. Retrieved on the 4th October 2013 from :
http://www.impots.gouv.fr/portal/dgi/public/popup;jsessionid=DUNGHRBBETCIPQFIEIQCFEY?espId=2&typePage=cpr02&docOid=documentstandard_2946&temNvlPopUp=t

[12] Explanation about the cost of legal publication by the chamber of commerce and industry from Paris. Retrieved on the 19th October 2013 from :
http://www.entreprises.cci-paris-idf.fr/web/reglementation/developpement-entreprise/droit-fiscal/droits-enregistrement

[13] Explanation about the article 38 from French tax law : point number 230. Retrieved on the 20th October 2013 from :
http://bofip.impots.gouv.fr/bofip/5713-PGP?datePubl=20/10/2013

[14] Definition of the debt equity ratio. Retrieved on the 20th October 2013 from :
http://www.investopedia.com/terms/d/debtequityratio.asp

[15] B. Keythman. *What Are the Disadvantages of a High Debt-to-Equity Ratio?.* Retrieved on the 20th October 2013 from :
http://smallbusiness.chron.com/disadvantages-high-debttoequity-ratio-56239.html

[16] MCLI page 36

[17] MCLI page 46

[18] MCLI page 39

[19] Law articles relative to non-voting stock. Retrieved on the 20th October 2013 from :
http://www.legifrance.gouv.fr/affichCode.do;jsessionid=AB2E31592E654226472FDD62658428BF.tpdjo09v_2?idSectionTA=LEGISCTA000006178773&cidTexte=LEGITEXT000005634379&dateTexte=20060106

[20] M. Stothard (06/22/2013). *Bank loans fall out of favour with EU companies*. Retrieved on Retrieved on 26th October 2013 from :
http://www.ft.com/cms/s/0/cdb66e46-f2bd-11e2-a203-00144feabdc0.html#axzz2iNwxvxKu

[21] C. Nijdam. (31/05/2011) Les banques françaises, mauvaises élèves sur la liquidité. *Revue Banque n°737*. Retrieved on Retrieved on 26th October 2013 from :
http://www.revue-banque.fr/risques-reglementations/article/les-banques-francaises-mauvaises-eleves-sur-liquid

[22] C. Roxburgh, E. Labaye, F. Thompson, T. Tacke and D. Kauffman (December 2012). *Investing in growth: Europe's next challenge.* Page 25. Retrieved on 26th October 2013 from :
http://www.mckinsey.com/insights/europe/investing_in_growth