

The development of contingency clauses: appraisal and implications for financial stability

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The sustained growth in corporate debt over the past decade has led to an increasingly widespread use of contingency clauses. These clauses, also known as “triggers”, are written into bond issue contracts or bank loan agreements, and aim to facilitate borrowers’ access to financing by offering a certain degree of protection to creditors. They result in a tightening of the company’s borrowing conditions (for example an increment in the coupon or an early repayment), should its financial situation deteriorate.

These clauses may have significant effects on the functioning of financial markets. First, because they complicate both credit risk analysis and the valuation process of debt securities with such triggers embedded. Second, because they complicate credit rating agencies’ task of rating debt-security issuers. And lastly, because their triggering could result in the opposite effect to that sought, that is to say, instead of protecting the creditor, they may cause a sharp deterioration in the borrower’s financial position. At the same time, they may also result in a series of destabilising effects for financial markets, exacerbated by the fact that investors are often unaware of their existence.

While these clauses must be used with caution by borrowers, adequate transparency is also essential so that rating agencies, analysts and investors might fully understand their potential effects .

The development of new debt financing products, associated with companies’ increased use of debt financing, especially in new technology sectors, has been a particularly salient feature in the debt financing market over the past decade. The conditions of bank loans and the characteristics of corporate debt securities have become more complex due to the inclusion of contingency clauses aimed at protecting creditors and facilitating borrowers’ access to new sources of financing, without too substantial an increase in the cost of borrowing, at least in the short term. Many of these clauses index interest rates or the repayment of the principal to changes in a company’s rating.

Therefore, if a rating is downgraded to below a level specified in the contract this will lead to, for example, a rise in the cost of borrowing, the closing of a credit line or an early repayment, and consequently to a tightening of the company’s borrowing conditions.

The development of these contingency clauses represents a new element for credit market participants. It is particularly important to closely assess the impact of these triggers on the analysis of borrowers’ credit risk. While credit spreads do generally provide a reasonably good measurement of the risk of default or of the probability of an issuer’s credit rating being downgraded (see article “How

much credit should be given to credit spreads?" in this *Financial Stability Review*), the new clauses, characterised by the inclusion of options in the repayment conditions or the fixing of interest rates, change matters considerably as they make this form of risk measurement more complex and delicate. On the one hand, investors often do not know that they exist, particularly when they are written into bank loan agreements, and on the other hand, while analysis techniques do exist for assessing the impact of these clauses, particularly those embedded in financial instruments, it remains difficult to accurately determine their effects on the borrowing

company. When these clauses are triggered in the investor's favour, they may result, for the issuer, in a liquidity strain or an increase in the financial burden, and thus, *ceteris paribus*, in a weakening of the firm's cash position and financial structure. These triggers may backfire on the creditors who initially sought to be protected by them. More generally, their increasingly widespread use (1) raises a number of questions, as it appears not only to complicate credit risk analysis (2), but it is also liable, particularly without sufficient transparency regarding their use, to destabilise the dynamics of the financial markets (3).

1| Overview of contingency clauses: how they work and the different types of mechanisms

The term "contingency clause" is taken to mean all conditions in bond issue contracts or bank loan agreements, whose triggering, tripped by the occurrence of a predetermined credit event, brings about a substantial change in the initially-agreed financing conditions.

lenders with a tool for managing credit risks and a more dynamic means of allocating lendable funds. These types of clauses can also be seen as an additional bargaining instrument available to lenders, in particular credit institutions, which can be used in their commercial relations with companies.

1|1 Why are such clauses used?

An increasingly widespread use

A sharp increase in this type of clause has been observed over the past few years. This is part of a broader trend of an increasing diversification of financing tools made possible by advances in financial engineering and the use of sophisticated credit risk modelling tools.

In a period in which companies' borrowing requirements rose dramatically – especially in the Telecommunication, Media and Technology (TMT) sectors, due to the scale of fixed capital investments and external growth operations – the use of these complex financing techniques satisfied the needs of borrowers, lenders and investors. It allowed borrowers to diversify their sources of financing, – with an increase in investment instruments fostering a broader investor base – and the possibility of limiting the immediate cost of their debt. And it provided

How contingency clauses work: the example of callable or puttable bonds

On the euro bond markets, the outstanding amount of callable and puttable bonds has more than doubled over the past two years. In spring 2002, using data published by Bondware, these bond outstandings were estimated at over EUR 40 billion. Bonds redeemable before maturity are defined as "callable" or "puttable" on the basis of whether they are redeemed upon the decision of the issuer or the investor ¹.

- A callable bond, redeemable before maturity by the issuer, enables the issuer to manage the cost of its debt by allowing it to take advantage of an interest rate cut and/or a narrowing of its credit spread in order to buy back its bonds under pre-specified conditions, and possibly issue new ones under more favourable conditions ². The advantage for the investor is that the coupon paid is higher than that of a standard bond, reflecting the value of the option exercisable by the issuer.

¹ Bonds convertible into equity, which sometimes carry a call option, and sinkable bonds, redeemable in accordance with a payment schedule starting before the nominal maturity date, are not dealt with in this article.

² Callable bonds are particularly well suited to financial institutions offering property loans whose outstandings may decline rapidly due to the possibility of early redemption in the event of interest rate cuts. The inclusion of a call option in the bond issued allows these institutions to more easily adjust their balance sheets in the event of the above, and prevents mismatching between their assets and liabilities.

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- Puttable bonds, redeemable before maturity by the investor, make up less than 2% of the bonds carrying options issued in Europe. However, such options are also written into numerous bank loan agreements. Puttable bonds are intended to make it easier to place bonds of issuers whose credit risk is considered to be significant, by offering investors the chance to free themselves of their debt obligation before the instrument matures, in the event of the issuer's credit quality diminishing. They therefore allow investors to better manage credit risk and more accurately assess the minimum expected return on their investments. Naturally, in return for this flexibility, the coupon paid is lower than that of a standard bond – in this case the investor purchases a put option – and therefore, for the issuer, the cost of debt is lower than it would be for issuing a “standard” bond.

1|2 Different types of mechanisms: a closer monitoring of the soundness of the issuer

The specific feature of puttable or callable bonds is that they carry an explicit option that can be exercised at a price and according to a schedule agreed at the time of issuance, *i.e.* at the issue anniversary date after a certain number of years, or even sometimes at any time after a given date. The likelihood of these options being exercised will therefore depend on two factors: the general level of interest rates, and the issuer's borrowing conditions, determined by its credit risk. An issuer will only exercise an option to buy back its bond if the level of interest rates imposed on it by the market allows it to reissue the bond under more favourable conditions, *i.e.* if market rates have fallen and/or if the risk premium, imposed by the market, has declined. Conversely, an investor might exercise a put option not only if the issuer's credit rating is lowered, but also if market conditions reflect an overall upward pressure on yields, regardless of the issuer's situation.

Different option triggers

More recently, new types of debt instruments carrying contingency clauses have been developed to enable investors to manage their credit risk

exposure more closely and limit the impact of changes in general market conditions. These contingency clauses also carry an option component that is not triggered by changes in the market value of the instrument, but tripped “upstream” by other triggers based on issuer-specific credit risk indicators. In particular, for both bonds and bank loans, clauses have been developed based on changes in the rating awarded to corporate issuers by international rating agencies and on changes in certain financial ratios such as EBITDA/net debt.

Possible impacts: ranging from an increase in the coupon to a break in financing

As the conditions triggering contingency clauses have diversified, their consequences also become more wide-ranging. We can broadly distinguish three types of clause, depending on the impact of their triggering on the initial financing conditions.

Specific security requirements

These types of clauses may be written into bank loan agreements. They are based on techniques used increasingly on financial markets in repo or swap agreements for example or in payment systems for securing intra-day loans. However, they differ in that they constitute transactions that are not collateralised at the outset but becomes so following a particular event, rather than transactions collateralised from the start whose collateral changes in relation to variations in the market price of the instrument. This mechanism does not result in a change in the initial financing conditions but obligates the borrower to pledge assets to guarantee its financing over time. The impact on the borrower's situation should therefore mainly be analysed in terms of opportunity cost.

Adjusting the nominal interest rate of current or future loans

Bonds and bank loans whose initial interest rates or coupons are revisable in the event of a change in the borrower's rating or some of its financial ratios, have increased over the past few years, particularly in the TMT sectors. As regards bank loans, clauses are likely to apply to both credit lines that are confirmed and already drawn and those that are collateralised but yet to be drawn. These clauses are generally referred to as step-up clauses.

Different conditions for triggering step-up coupons

Examples from the European Telecom sector

While the principle of step-up bonds is identical for all issuers, issues are governed by specific conditions that often result in very varying prices on the secondary market. The most significant conditions for ratings-related step-up clauses are:

- Triggering the step-up clause. The terms and conditions for taking into account a ratings downgrade vary among companies. In the case of certain bonds, the clause is only triggered when the rating is downgraded by several credit rating agencies – i.e. Deutsche Telekom step-up bonds whose clause is triggered by a simultaneous downgrade by Standard and Poor's and Moody's – while for others, a downgrade by a single rating agency suffices (see various France Télécom and KPN issues).
- Application of the step-up clause. In general, a downgrade during a given year will not affect the following coupon, but that of the coupon paid the year after. Such is the case for France Télécom and Deutsche Telekom bonds. However, for some bonds (KPN – 2003), the coupon is modified at the same time as the rating is downgraded, so that the amount of the coupon paid on the following anniversary date will be calculated in proportion to the initial coupon and the new coupon.
- The amount of the step-up. The coupon may be incremented each time the rating is downgraded – i.e. France Télécom and KPN (2006) bonds whose coupons are incremented by 25 basis points and 37.5 basis points respectively each time the rating is downgraded below a pre-defined level (A-/A3 for France Télécom and BBB+ /Baa1 for KPN) – or just once, with a more significant increment in the coupon rate (see, for example, Deutsche Telekom issues whose coupons increase by 50 basis points if the rating is downgraded to below BBB+ /A3).

Bonds carrying step-up coupons have a pre-established coupon that is likely to be incremented in the event of the issuer's rating being downgraded, in accordance with the following pre-specified conditions: if the rating is downgraded to beyond a certain threshold, in the following years the coupon rate will be incremented by a fraction agreed at the outset. In general, if the company's situation improves and it recovers its initial rating, the coupon rate is likely to return to its issue level. However, it will not fall below this level even if the rating is upgraded to above its initial level. The actual conditions for triggering step-up clauses may vary on a company-to-company basis.

The table below shows how the impact of a ratings downgrade differs according to whether or not the bond carries a step-up clause, i.e. in the case of two identical bonds with a maturity of five years and a 5.5% coupon initially yielding 6.5%, one being standard and the other carrying a step-up clause³. Let us assume that a non-factored in downgrade, which results in a 25-basis point increment in the yield to 6.75%, leads to a 1 percentage point discount from 95.8% to 94.8%. The price of a bond with

similar characteristics but with an embedded step-up clause will always decline less, but the rise in the coupon will partially or fully offset, or even exceed, the initial downward impact on the bond's price, depending on the agreed coupon increment.

Change in the price of a theoretical bond, in relation to its yield variation and the size of its step-up (five-year bond, with an initial 5.5% coupon)

Situation	Step-up	Coupon paid	Yield	Price
Standard bond, before downgrade	0	5.50	6.50	95.84
Standard bond, after downgrade	0	5.50	6.75	94.84
Step-up bond, before downgrade (downgrade not factored in)	20, 25 et 30 bp	5.50	6.50	95.84
Step-up bond, after downgrade (downgrade not factored in)	20 bp	5.70	6.75	95.66
	25 bp	5.75	6.75	95.87
	30 bp	5.80	6.75	96.07

Calculations: Banque de France

³ For the sake of simplicity, we shall consider that the premium linked to the step-up coupon is zero provided that the market is not factoring in a change in the issuer's rating.

The price of step-up bonds follows a similar pattern to that of standard fixed-rate bonds, if the clause is not triggered, and to that of variable or floating rate bonds if the clause is triggered or expected to be triggered. Contrary to agreements that require collateral to be posted if the rating is lowered, the issuer/borrower does not incur the simple opportunity cost associated with the triggering of the clause, but a sometimes immediate mechanical increase in the cost of financing.

Casting doubts on the financing itself

Based on the principle of puttable bonds, acceleration and termination clauses were developed, which, when activated, result in, for a loan initially granted for a long period, the acceleration and termination of credit availability. Once again, these types of clauses are used in bond contracts and bank loan agreements, as well as in back-up credit lines. The effect of these clauses being triggered may be devastating, as it may instantly cut off access to the financing.

2| The complexity of valuing financing instruments with contingency clauses

2|1 Specific price dynamics

The sharp increase in debt instruments with options complicates matters greatly for investors, who must be able to assess the risks well enough to accurately measure their exposure and carefully compare these instruments' yields with those of standard bonds. The difficulty consists in calculating the price of the option, by separating it from the "naked" security, as well as in estimating the probability of the option being exercised. While the value of a bond with an embedded option is equivalent to the value of a "standard" bond plus/minus the value of the option, the valuation methods for each given instrument vary according to the nature of the embedded option.

- In the case of a puttable bond, the investor purchases an option to sell (put option) the bond. The price of the bond will therefore be higher and its yield lower than that of a standard plain vanilla bond with the same maturity and same coupon. The value of a puttable bond is therefore equal to the price of a standard bond plus the premium relating to the put option. In the event of a sharp fall in the yield, the option, which will be considerably out-of-the-money, will only have a very low value as the price of the bond will be much higher than the strike price. As the expiry date approaches, the value of the option will decrease. Close to expiry, the option, which only has a very remote chance of being exercised, will no longer have any value. In both these cases, the price of a puttable bond is almost the same as that of a standard bond.

- However, as regards callable bonds, as the investor is the seller of the option, the price is lower and the yield is higher than that of a standard bond with an identical maturity and coupon. The price of a callable bond is therefore equivalent to that of a "standard" bond minus the value of the option.
- If the bond carries a step-up clause, when the clause is triggered, the investor will see an increment in the coupon of the initial bond. This situation is close to that of an investor who simultaneously holds a puttable bond with the issuer and a call option on a new bond with the same maturity as the initial bond but paying higher coupons. The price of the step-up bond is therefore equal to the price of a standard bond plus the value of the premium relating to this particular option.

2|2 The ineffectiveness of traditional valuation tools

Owing to the hybrid nature of bonds with embedded options, it is not possible to employ the methods used for valuing plain vanilla bonds. Indeed, in order to calculate the present value of a fixed-income security it would be necessary to know the periodic cash flows. For bonds with option clauses, this is not possible, as the amount of the periodic coupon payments — in the case of bonds with step-up clauses — or the life of the bond — in the case of callable or puttable bonds — could be modified to reflect the changes in the issuer's situation.

- The usual method for calculating yield-to-maturity is ineffective and cannot be used to obtain an indicator of a relevant yield that can be compared with a yield on a risk-free bond to obtain a spread reflecting the credit risk of the instrument in question.
- The same applies to the yield obtained from scenarios corresponding to a yield-to-worst analysis (the worst possible performance on the basis of current market conditions). This method does at least take into account the option embedded in the bond, but it does not address the problem relating to the uncertain pattern of its future cash flows. Furthermore, this indicator may be highly volatile, given that a change in the bond's market price may result in a change in the worst repayment date for the investor, significantly modifying all the previous estimates.
- Calculating the yield using a yield-to-first-call/put approach (assuming the option will be exercised on the soonest possible date) appears more prudent, but, as above, it does not provide a reliable indication of the value of a bond with an embedded option.

2|3 Step-up coupons: a probabilistic approach that remains tenuous

We shall now focus on valuation methods for bonds with step-up clauses. These methods differ from those which may be applied to callable or puttable bonds in that, the event triggering the option, and in particular the consequences of the clause being triggered, are not identical.

As step-up bonds cannot be valued in the same way as standard bonds, in order to analyse them it is necessary to measure the value of the step-up clause based on the market value. At the same time, it is possible to estimate the clause's theoretical value by adjusting the coupon along with the probable trend in the company's rating. By comparing the two measurements, it is possible to obtain an indication of market participants' central scenario on the company's rating outlook over a given horizon.

Estimating the market value of the step-up clause: an empirical approach

The market value of a bond with a step-up clause is equal to the sum of the market value of an equivalent "standard" bond plus the step-up premium. The value of this premium, also known as the step-up spread, depends on market participants' expectations relating to the issuer's rating outlook. This value can be estimated by calculating the spread between the market yield for the step-up bond and that of an equivalent bond with the same maturity and same issuer, but without a step-up clause.

The value of the step-up option is, however, difficult to directly assess on the market. This is mainly due to the fact that it is rare that the same issuer issues both a standard bond and a step-up bond with the same maturity. Therefore, in order to measure this value, a certain number of estimates and adjustments are necessary.

All things being equal, if it is expected that the issuer's rating will be downgraded, the value of the option and, hence, the price of the bond, will increase. Therefore, the higher the expectations of a downgrade, the more negative the step-up spread will become.

Once the step-up clause has been triggered, provided that no further downgrades are expected, the option loses value and the step-up spread generally becomes zero. However, if an upgrade has been factored in, the value of the option becomes negative and the step-up spread becomes positive, provided that there is a step-down clause as well as a step-up clause (based on the coupon increment valuation method)⁴.

The possible variations in the yield of a step-up bond can be illustrated by the KPN June 2003 bond. Until September 2001, the date on which it was announced that the company's rating had been downgraded, this bond was trading at a slight premium *vis-à-vis* the equivalent plain vanilla bond. It had a negative step-up spread, indicating that this downgrade had been factored in. Subsequently, the bond's yield fluctuated around the interpolated curve along with changes in market participants' rating expectations. In October 2001, the step-up spread became very negative, pointing to expectations, at the time, of further downgrades before June 2002, the date on which the coupon becomes payable.

⁴ Estimation of the step-up spread based on the new cash flows

Methodology and practical difficulties in estimating the market value of a step-up option

Estimating the yield of a bond with the same maturity as that of the step-up bond

When there are a large number of issues with closely-grouped maturities, the linear interpolation between the yields of the two "standard" bonds with the closest maturities on either side of the step-up bond in question may be satisfactory, provided that the liquidity of the bonds are the same ¹. However, this measurement does not take into account the concavity of the yield curve ². If the number of issues is limited or if the difference in maturity between the bonds is too great, it may be necessary to use a yield curve calculated on the basis of issues with the same rating and, if possible, in the same sector of activity.

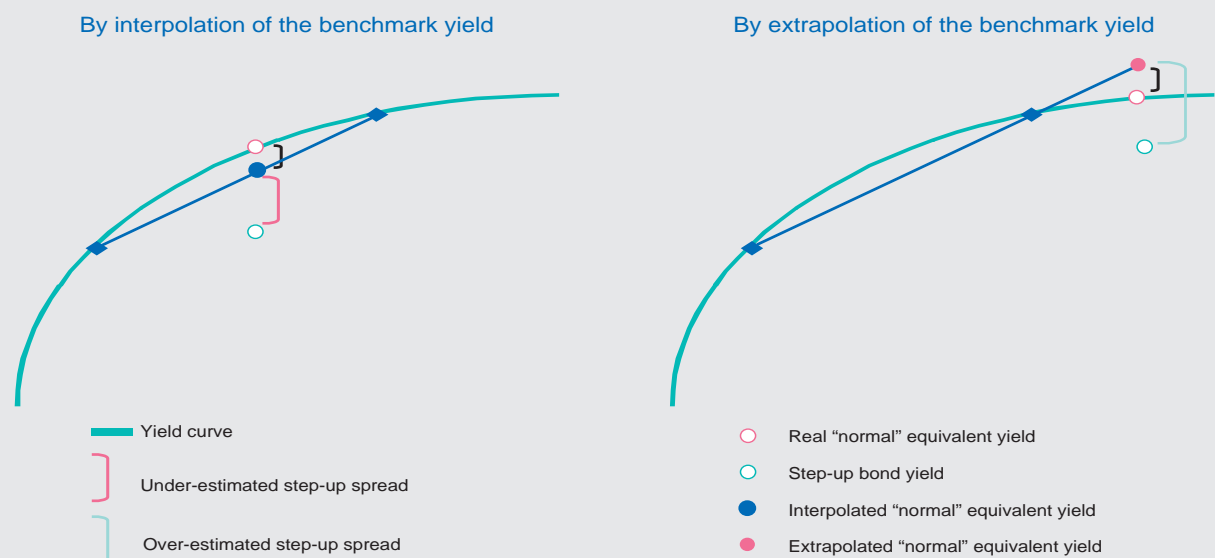
Calculating the yield of the step-up bond

The yield of a step-up bond can be calculated in two ways: either based on the initial level of the coupon, i.e. the current value of the step-up spread, taking into account any actual coupon increments, which can only be positive or zero. Or, based on the coupon increments, i.e. the present value of the step-up spread can then be positive or negative depending on whether the market is factoring in a further downgrade or an improvement in the company's rating. While the first method enables greater continuity of the analysis over time, the second may be better suited to a forward-looking approach. Both methods should, however, produce the same conclusions as to how investors' expectations are likely to change.

Estimating the value of the step-up coupon

This estimate can be made by calculating the difference between the yield interpolated from the benchmark curve and the market yield of the step-up bond, i.e. the difference between the step-up bond's yield and the benchmark yield. A curve can then be plotted replicating the step-up spread throughout the life of the bond.

Estimating the step-up option for a given concavity of the yield curve

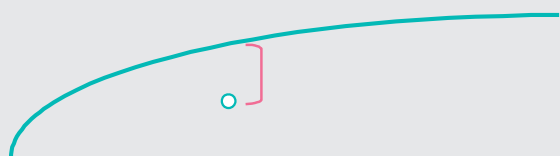


¹ *If the amount outstanding of the step-up bonds is significantly greater than that of the standard bonds used for the interpolation, the step-up spread, provided that it takes account of the liquidity premium, may overestimate expectations of ratings downgrades, or under-estimate expectations of an upgrade.*

² *The fact that the concavity of the yield curve is not taken into account tends to minimise the level of the benchmark yield, and consequently diminish the impact of the expectations of ratings downgrades. The more distant the maturities of the closest standard bonds to the step-up bond are, the more this will be the case. The opposite will be true if benchmark yields are estimated by extrapolation.*

The chart below shows how the yield of a step-up bond varies along with changes in the rating

At the time of issue, the step-up is on or below the issuing company's yield curve
(On the basis of the rating outlook)



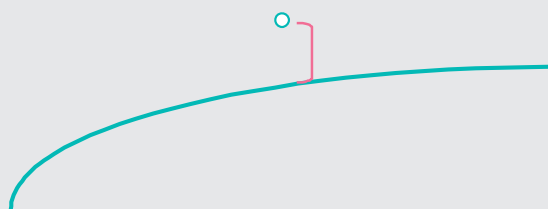
When ratings downgrades are expected, the step-up spread widens



After the downgrade, the step-up bond is generally on the curve



When rating upgrades are expected, once the step-up clause has been triggered, the spread becomes positive (step-down)
(Estimate of the step-up bond based on the coupon increment valuation method)



- Company's yield curve
-] Step-up spread
- Step-up bond

Estimating the theoretical value of a step-up coupon: probabilities of ratings downgrades

The present value of a step-up coupon is calculated by discounting the remaining coupons, with the amount of these flows being determined by whether or not the step-up clauses are triggered. Where P is the probability of a step-up coupon being triggered for year t , and Z is the zero coupon rate corresponding to the risk of the issuer in question. The calculation is expressed as follows:

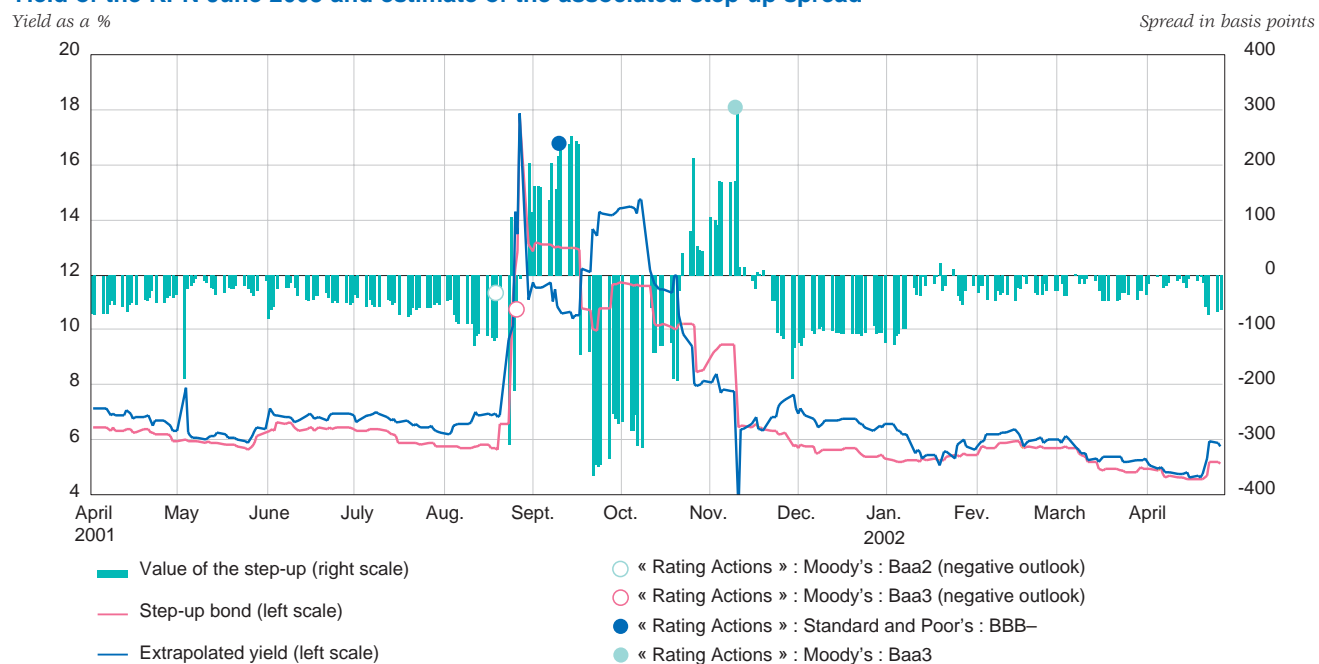
$$\text{Discounted value of the step-up coupons} = \sum_{t=1}^n \frac{P_t \times \text{step-up coupons}_t}{(1 + Z_t)^t}$$

In order to estimate the theoretical value of a step-up spread, it is therefore necessary to assess the probabilities of the issuer's rating being downgraded over the life of the bond in question.

By using transition matrices constructed by international rating agencies, we can obtain the likely general scenarios. In effect, these matrices give the probability of a given rating of an issuer or a bond changing within a given time horizon. For example, by making a one year projection of a transition matrix, we obtain the probabilities of the rating being changed for the following years.

Within this theoretical valuation framework, in order to make a detailed analysis of the expectations regarding a given issuer, the general scenarios derived from the transition matrices must be replaced by rating outlook scenarios taking into account the specific characteristics of the company and its debt. These scenarios, and the associated levels of step-up spread can then be compared with the level of price of the step-up coupon on the market. In effect, the general calculation formula can be used to obtain a "likely" scenario of the issuer rating outlook from the price of the step-up coupon observed on the market.

Yield of the KPN June 2003 and estimate of the associated step-up spread



Sources: Bloomberg, Moody's, Standard and Poor's, Banque de France

Estimate of the theoretical value of the step-up bond based on scenarios derived from rating agencies' transition matrices

For a two-year bond, carrying a 25-basis point step-up clause, triggered on each downgrade between A- and BBB-, and a 75 basis point fixed increment below that rating, the Markovian probability of a downgrade should be assessed for each year. The calculation using a Standard and Poor's one-year transition matrix gives the following probabilities of a downgrade in the first year: 7.1% (A- to BBB+), 2.6% (A- to BBB) and 1.7% (A- to BBB- or below). And for the second year, the following probabilities are obtained: 11.1%, 4.7% and 3.3%. On the basis of a 3% and 4% zero coupon bond, at one and two years respectively, the present value of the step-up will be:

$$\text{Discounted value} = \left[\frac{(7.1\% \times 0.0025) + (2.6\% \times 0.005) + (1.7\% \times 0.0075)}{1.03} \right] + \left[\frac{(11.1\% \times 0.0025) + (4.7\% \times 0.005) + (3.3\% \times 0.0075)}{1.04^2} \right] = 0.11\%$$

3| Contingency clause dynamics: a critical analysis in terms of financial stability

The inclusion of contingency clauses in bond contracts and bank loan agreements is logical from the lender's point of view, as it limits individual exposure to a given issuer or category of issuers. It is also justifiable from the borrower's point of view, as it limits the immediate cost of external financing and diversifies the sources of financing.

However, the development of these types of clauses in recent years, as well as the diversification of their terms and conditions of exercise, have raised a number of questions regarding their effects on both market participants and the actual dynamics of the financial markets.

The use of contingency clauses raises three main issues that are worth exploring.

3|1 Marked pro-cyclicality

Contingency clauses enable borrowers to instantly increase their leverage margins...

When companies experience periods of heavy borrowing, their cost of borrowing tends to rise along with the increase in their debt level and, accordingly, the level of risk. This rise in the cost of borrowing then acts as a disincentive, helping to limit further increases in companies' debt level. However, this self-regulating mechanism may be undermined by the development of contingency clauses, which make it possible to cap the immediate cost of borrowing, or limit its increase. They may therefore encourage companies to become more indebted. Indeed, the use of these types of clauses has developed most systematically among companies in the TMT sectors, that is to say in the sectors that have had the greatest borrowing requirements over the past few years.

... at the risk of weakening their financial structures...

This additional short-term flexibility, reflecting a more general easing of the liquidity constraints arising from financial innovation, may, however, very rapidly become costly in the event of a turnaround in the economic environment or if the issuer encounters

particular difficulties. Indeed, the use of contingency clauses makes the issuer more sensitive to any deterioration in the environment or in its own situation, which could increase the risk of these clauses being triggered, and could in turn worsen the issuer's financial structure by further increasing the cost of borrowing, or even cutting off access to financing. Therefore, a company whose debt contains such clauses and which is not properly prepared for this situation, could lose control over its liquidity situation if these clauses are triggered. This could in turn rapidly affect its solvency. The tripping of a rating trigger may in itself become a credit event, and liquidity a major determining factor in credit risk.

... and at the risk of causing a dangerous spiral

The triggering of contingency clauses may mean that a difficult situation could turn a liquidity crisis into a solvency crisis, generating an irreversible downward spiral for a company or a group. These clauses may result in a negative gearing effect for the company.

The following sequence, based on the experience of the Californian group Pacific Gas and Electric Corporation at the start of 2001, illustrates this chain of events⁵:

- in January 2001, the rating of the holding company and that of its subsidiary PGE Company were downgraded to below investment grade;
- the credit facilities initially extended to PGE Company were terminated, following the ratings downgrade that constituted an event of default under the facilities that contained ratings triggers;
- there was an immediate demand by the counterparties of PGE Company for additional collateral to be put forward, in the event of the holding company's rating being downgraded;
- as a result of the ratings downgrades it became impossible for PGE Company and PGE Corporation to access the commercial paper (CP) market and consequently they could not honour payments on maturing CP;

⁵ Example taken from Moody's Investors Services: "The unintended consequences of rating triggers" Special Comment, December 2001

- this default on CP triggered demands for redemption of the company's medium-term notes (acceleration clauses);
- moreover, following the downgrade, PGE Company was asked to collateralise its activity on the energy market (California Power Exchange). Since the company was unable to post such collateral, it could not continue its usual trading activities;
- PGE Company filed Chapter 11 in April 2001.

3|2 A situation that complicates the assessment of a company's financial soundness

The presence of contingency clauses in the liabilities of a company's balance sheet makes it far more complicated for investors and analysts to assess its financial situation. It also complicates the task for rating agencies.

Growing asymmetry of information

The situation prevailing on the financial markets over the past few months has shown that many investors only had partial, or even extremely fragmented knowledge of companies' financial structures. This contributed to the volatility on credit and stock markets, and added to the confidence crisis that markets are currently experiencing. It appears that it is difficult or even impossible for investors to obtain information for detecting the possible existence of contingency clauses in companies' debt structures.

- When these clauses are embedded in bond contracts, where the information is public and should be available, it is up to investors — also in the case of shares — to carry out detailed analyses in order to take these clauses into account in their investment decisions. But, even after detecting these clauses, investors still require the wherewithal to be able to assess their potential impact.

- When these clauses are incorporated in bank loan agreements, they are, at present, rarely disclosed to the public or known to the community of market participants⁶. This situation is liable to amplify the asymmetry of information and endanger the smooth operation of the markets by skewing the asset price formation mechanism. The impact of a contingency clause being triggered will be more severe if it is not anticipated or priced in.

Until recently, that is to say until the triggering of such clauses contributed to the spectacular plunge in the price of major stocks, it seems that equity markets had only vaguely acknowledged their existence. However, these instruments transfer part of the risk from the credit market to the shareholders. Above and beyond the lack of transparency regarding the use of these products, the appeal of equity markets in the latter half of the 1990s is very likely to have contributed to this phenomenon of collective short-sightedness.

The necessary development of the rating process

The increasing use of contingency clauses has naturally affected the rating process of credit rating agencies:

- Like the community of market participants, rating agencies are faced with the problem of obtaining exhaustive information. However, for the latter it is even more important to be able to access this information as these agencies are at the very core of the process of assessing credit quality and their "verdicts" play a vital role in financial market dynamics. As far as this last point is concerned, we should bear in mind the "threshold effects" arising from an issuer being downgraded to below the investment grade category. Such a prospect is likely to lead to a drop in the price of the bond as it is massively sold over a short period of time.
- The contingency clauses examined above may be triggered by both exogenous factors, such as the rating, and by endogenous factors, such as changes in the price of the bond on the secondary

⁶ The IAS accounting standards, in particular IAS 32, call for a detailed description of the characteristics of the financial instruments used by companies, regardless of whether they are booked in the balance sheet. Notably, they require information on the terms and conditions of early redemption, the use of collateral, and any particular clauses attached to these instruments. The US GAAP accounting standards, i.e. FAS 105, also call for detailed disclosure by companies of the characteristics of financial instruments used.

market, or changes in some of the issuer's financial ratios. Experience shows that interactions between the different factors – a ratings downgrade, even if no rating-related triggers are attached, may contribute to a rapid worsening of the company's financial ratios, which could trigger certain clauses; conversely an, even limited, deterioration in these financial ratios could generate a ratings downgrade, which will in turn trigger such clauses – are very likely to cause financial shocks, or even a dangerous downward spiral for the issuer.

Contingency clauses are likely to have a number of different effects on credit agencies rating assessment processes:

- As part of this process, by rigorously examining the company's weaknesses, it is assumed that the company's capacity to resist the simultaneous triggering of all of its clauses is tested. In doing so, the rating process may result in an excessive focus on short-term considerations, whether they be technical or market-related, rather than on medium or long-term factors. This may be particularly the case when an issuer's debt contains a number of contingency clauses, with some linked to its rating, and others to changes in its financial ratios or its market price.
- While placing greater importance on short-term considerations, the use of contingency clauses justifies increased vigilance on the part of rating agencies. All other things being equal, this may result in increased instability of ratings as well as in the two-fold impact of a decline in the average level of ratings – as contingency clauses are now exhaustively taken into account without fully understanding the extent to which they are used or their effects – and a broader spread of ratings throughout the whole scale. These effects have an impact on the behaviour of fund managers. Given the extremely rigorous asset allocation rules to which fund managers are subject, the above-mentioned threshold effects become amplified.
- The increasing use of ratings-related contingency clauses is likely to multiply and complicate the sensitive situations that rating agencies face

when making assessments – hesitation over downgrading a company's rating due to the definitive nature of such an action – in view of the fact that the impact of their decisions could be hugely amplified.

In this context, there is a danger that rating process as it stands may become a “risk factor” and a source of volatility in the asset price formation mechanism, more than an instrument for measuring relative risks.

3|3 A false sense of protection?

While it is rational for an investor or a bank creditor to try to control its risk/reward trade-off through contingency clauses, the widespread use of these practices may result in the opposite effects to those initially sought. This will be even more the case if market participants lack exhaustive and reliable information about the extent to which and way in which issuers/borrowers use these types of clauses:

- Systematic use of these types of clauses is likely to strip the protection sought of any real substance, lulling individual lenders into a false sense of security.
- This false security might encourage the various categories of creditors to be less rigorous in their risk assessment process and when extending new credits, while greater vigilance should be called for. While creditors have the possibility, or believe that they have the possibility, of very rapidly adjusting their level of exposure, they may cease to be sufficiently rigorous in their financing or investment decisions. A similar problem is encountered when examining the possible effects of the explosion in credit derivatives, as contingency clauses can in fact be considered to be instruments for transferring credit risk.
- These clauses, which make ratings less stable and make companies more sensitive to their short-term environment, expose financial markets to higher levels of volatility. Lastly, on average, they may lead to a widening of credit spreads, and thus to an increase in the cost of borrowing for companies.

Over the past few years there has been a real explosion in the use of contingency clauses, driven by companies' increasing borrowing requirements. One of the conclusions that we can draw from this analysis is that these clause can have significant effects on the borrowers that use them and on the overall functioning of financial markets. Owing to their possible knock-on effects and the excessive focus on short-term factors in which they result, these clauses are liable to create the conditions for their destabilising effects on financial markets to become self-perpetuating. It is therefore essential that their use be subject to a high degree of transparency. It is indeed the lack of transparency, and the consequent inability of market participants to correctly assess the impact of their being triggered on the issuer's situation, that may result in destabilising dynamics. This transparency requirement should be more closely observed by all market participants as knowledge of these instruments improves. Nevertheless, even with greater transparency and more ample information, companies should use these instruments with caution, and rating agencies, analysts and investors should carry out detailed analyses of their potential effects.

