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Levering buyouts in a credit crunch

A study of the size, structure and pricing of loans on the Nordic LBO market 2005 - 2008

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Abstract

The U.S. subprime crisis in July 2007 caused worldwide financial turbulence and turned several financial markets illiquid. These problems have affected the banks' willingness and ability to lend money to leveraged buyouts (LBO). The motivation for this thesis is to see how the problems in the financial markets have affected the Nordic LBO market between 2005-2008 by describing the development of banks' lending to LBOs in terms of size, structure and pricing. The development is described both through quantitative and qualitative data. The results from interviews with both Nordic and foreign banks have been the main data used for the result, analysis, and conclusion. To summarize the results: Since the credit crunch in July 2007, the prices of the loans have increased, the size of the loans has become smaller, and the structure of the loans has changed significantly. The reasons for these changes are mainly that the macro environment has changed and that the competition, from both banks and institutions such as hedge funds, has decreased. The conclusion that can be drawn based on the result is that the size, structure and pricing of the loans to LBOs are sounder today. The development of the LBO market seen in 2006-2007 could not persist in the long run, hence the bubble finally burst. Syndicating loans are nowadays an embedded part of the LBO process and its liquidity is vital for the LBO industry. In our study, we have also noticed a great influence from market forces on banks' lending to LBOs, to a greater extent than what banks are willing to admit.

Résumé

Introduction

Aujourd’hui, le marché nordique des LBOs (rachats par effet de levier, anglais: leveraged buyouts) se trouve dans une situation très intéressante. Après avoir vu plusieurs années d’une forte croissance d’achats aussi bien en nombre qu’en taille, poussée par une demande très croissante de la dette au marché secondaire, le resserrement du crédit a marqué le marché en juillet l’année dernière. Une incertitude quant à l’évaluation des titres financiers a épuisé le liquide du marché secondaire de la dette des emprunts syndiqués. Ce marché-là est celui dans lequel les banques font du commerce et gèrent le risque de crédit des emprunts des LBOs. Pour cette raison, le marché des LBOs s’est gravement changé. De plus, une économie américaine en régression et une récession possible pourront influer largement sur les futurs flux de trésorerie des entreprises de plusieurs industries. Vu ces conditions, Öhrlings PricewaterhouseCoopers nous a demandé de présenter comment la taille, le prix, et la structure des emprunts aux LBOs nordiques ont changé depuis 2005 jusqu’à aujourd’hui. Cette étude doit ainsi répondre aux questions suivantes :

- Comment la taille des emprunts des LBOs, mesurés comme une multiple d’EBITDA, a-t-elle changé?
- Comment la taille du niveau des fonds propres, mesurés comme un pourcentage de la valeur de l’entreprise, a-t-elle changé ?
- Comment peut-on décrire le développement des prix et des choix des instruments de dette ?
- Quelles sont les influences les plus grandes sur les emprunts des LBOs, et comment ont-elles changé ?
- Comment le futur du marché des LBOs est-il vu par les professionnels de l’industrie ?

L’étude est basée sur des interviews avec des banquiers travaillant dans quelques-unes des banques les plus importantes du marché nordique. Pour donner une image véritable de tout le marché et pour distinguer des différences entre les banques nordiques et les banques étrangères, nous avons choisi quatre banques suédoises et quatre banques étrangères. Ces banques sont SEB, Nordea, Swedbank, Handelsbanken, RBS (Royal Bank of Scotland), HSH Nordbank, Bank of Scotland et Deutsche Bank.

Théories fondamentales

Description et caractéristiques d’un LBO

Un LBO est l’acquisition d’une entreprise utilisant un grand niveau d’endettement pour payer le prix d’achat, et le rachat est normalement fait par un fond d’investissement. En empruntant une grande partie de la somme d’achat, l’acheteur bénéficie de l’effet de levier financier, c’est-à-dire qu’il obtient plus de rentabilité en relation de ses fonds propres. Comme l’endettement crée un risque financier, une entreprise convenable pour être rachetée devrait avoir peu de risque opérationnel. Pour ça, ces entreprises-là sont normalement des entreprises aux flux de trésorerie hauts et stables dans les industries persistantes aux baisses conjoncturelles.

L’acheteur, normalement appelé le sponsor, contribue avec des fonds propres qui correspondent à 20-30% du prix d’achat. La plus grande partie de la dette est la dette senior, normalement 50-60% du prix d’achat. Le reste de la dette, qui s’appelle mezzanine, couvre 20-30% du prix d’achat.

La dette senior est divisée en trois tranches différentes (A, B et C). La tranche A fait normalement 60-70% de la dette senior et elle est amortissable sur 7 ans, et les tranches B et C (les tranches bullet) font ensemble 30-40% et elles sont remboursable in fine sur 8 et 9 ans respectivement. Les trois tranches différentes se trouvent au coût de 225, 275 et 325 points de base respectivement au-dessus du STIBOR/LIBOR (Stockholm/London interbank offered rate). La mezzanine est un financement hybride entre la dette senior et les fonds propres. Ce sont des obligations à haut rendement ou PIK (payment-in-kind), c'est-à-dire des obligations dont l'intérêt est recapitalisé et donc augmenté par le principe de l'intérêt sur intérêt. Normalement, la mezzanine est une obligation qui est une combinaison de tous les deux. Pour attirer des investisseurs, la mezzanine a souvent un dispositif convertible.

Perception et gestion du risque de crédit par la banque

La banque effectue une analyse poussée du risque de crédit pour décider la taille de l'emprunt. L'analyse vise à déterminer les flux de trésorerie futurs de l'entreprise et comment l'entreprise se débrouillerait dans une baisse conjoncturelle. L'emprunt est mesuré comme un multiple d'EBITDA de l'entreprise. L'EBITDA est l'acronyme anglaise pour earnings before interests, taxes, depreciation, and amortization. (Il est proche de l'EBE, excédent brut d'exploitation, à la différence que l'EBE inclut les impôts.) L'EBTIDA est utilisé pour mesurer l'emprunt parce qu'elle signifie les flux disponibles pour payer l'intérêt et les payements de la dette.

Comme les entreprises rachetées ont généralement peu de risque opérationnel, la perception par la banque du risque d'un LBO vient du problème principal-agent. Des intérêts opposés et une différence d'attitude par rapport au risque entre le principal (la banque) et l'agent (le management de l'entreprise) peuvent faire comporter le management d'une manière qui pourrait faire augmenter le risque de crédit de la banque. Les problèmes majeurs sont le problème des sous-investissements, le cas dans lequel les propriétaires de l'entreprise laissent échapper une opportunité d'investissement profitable parce que la plupart du gain irait aux emprunteurs, et le problème d'une prise de risque excessive, où la volatilité fait augmenter la valeur des fonds propres, ce qui peut amener le propriétaire à prendre plus de risque.

Pour gérer les risques provoqués par le problème principal-agent, la banque inclut des covenants bancaires, basés sur des résultats et du comportement de l'entreprise, dans la dette senior. Les covenants basés sur des résultats sont les ratios financiers principaux dans lesquels l'entreprise doit se maintenir tandis que ceux qui sont basés sur du comportement sont conçus pour contrôler la gestion de l'entreprise. Ce dernier pourrait être des contraintes concernant la permission de l'entreprise à acquérir d'autres entreprises. La mesure finale de la gestion du risque de crédit est la syndication des emprunts où plusieurs banques et institutions financières participent à l'emprunt, distribuant efficacement le risque entre eux. Ces emprunts sont de nos jours mis sur un marché secondaire, où les commerçants principaux sur ce marché sont des banques, des fonds de couverture, et des fonds CDO (acronyme anglais pour Collateralized Debt Obligation).

Résultats de l´étude

Le développement des multiples d'EBITDA et de la taille des fonds propres

Les multiples de la dette totale ont augmenté de 5,9x en 2005 à 7x dans la première moitié de 2007. Les multiples de la dette senior tenaient la même distance à la dette totale, alors que la taille de la mezzanine restait la même. Pendant ces années-là, beaucoup des LBOs étaient endettés et puis recapitalisés avec des conditions plus favorables pendant la première moitié de 2007. Comme la banque responsable de la syndication n'avait aucun problème pour trouver des partenaires, les agréments sont souvent changés utilisant « reverse flex » (une possibilité de changer le prix de l'emprunt), ce qui a fait hausser les multiples de la dette senior.

Les raisons pour cette croissance du levier financier pendant ces années-là sont généralement considérées par les banquiers comme le résultat d'un environnement macro-économique stable et une compétition augmentée sur le marché. L'environnement macro-économique stable, caractérisé par des intérêts bas et une croissance mondiale stable du PIB, a incité une plus grande confiance quant à l'évaluation des entreprises ainsi qu'à l'analyse du risque de crédit par les banques. La compétition s'est faite par des nouveaux acteurs : des banques mais surtout des investisseurs institutionnels. Ceux-là ont augmenté la demande de la dette au marché primaire et secondaire, ce qui a fait hausser les multiples. Les fonds d'investissement avaient beaucoup de capitaux et pouvaient faire concurrencer les banques entre elles-mêmes.

Après le resserrement du crédit, les multiples de dette ont baissé 1-2x EBITDA et se trouvent maintenant à un niveau auquel les banquiers se réfèrent comme le niveau de l'année 2005. Cette année, il y a eu une variation entre 2,8x et 5,2x, mais le niveau général se trouve à 4x de la dette senior et 6x de la dette totale.

Les trois raisons principales de la baisse des multiples viennent du resserrement de crédit en juillet 2007 qui a épuisé les liquides du marché primaire et secondaire de dette, a causé des soucis macro-économiques, et a augmenté le coût des banques. Comme les banques n'osent plus prendre le risque de syndication, rassembler des capitaux pour un LBO est difficile et le marché bouge très lentement. L'environnement macro-économique a rendu instables certaines industries où les multiples baissent fortement. Le coût augmenté des banques se transfère sur les clients.

Selon les banques, les fonds propres constituent normalement 30-40%. Pendant la première moitié de 2007, ce taux a baissé vers 20-25%, mais est retourné à environ 40% aujourd'hui. Historiquement, les petits rachats sont faits avec plus de fonds propres que les grands rachats. Cependant, une des banques a dit que comme il est difficile de rassembler des capitaux pour les grands rachats, cette situation est inversée aujourd'hui, c'est-à-dire que les grands rachats se font avec plus de fonds propres que les petits rachats.

Le développement du prix et de la structure de dette.
La structure de dette des LBOs a beaucoup changé depuis 2005 jusqu'à aujourd'hui. Constituant de dette senior et mezzanine en 2005, plusieurs instruments de dette ont été ajoutés pendant la première moitié de 2007, mais après le resserrement de crédit, ces nouveaux instruments ont presque tous disparus.

Pendant la première moitié de 2007, la demande de la dette par les investisseurs institutionnels a fait baisser le prix des instruments. Le prix des tranches de la dette senior ont baissé de 25 bps. De plus, la mezzanine est remplacée par des PIKs et le nouvel instrument appelé second lien. Celui-là est une dette subordonnée à la dette senior sans sécurités, comme des obligations à fort rendement, mais à de très bons prix. Comme les investisseurs institutionnels ne demandent que de la dette non amortissable, la tranche A a presque disparu de la structure.

Après le resserrement du crédit, les prix sont retournés au niveau de l'année 2005. Le second lien a tout à fait disparu et la mezzanine est retournée sur le marché.

Les influences principales sur la taille et le prix
Les analyses du risque de crédit sont basées sur la due diligence confirmée du sponsor. Cette due diligence n'est pas toujours satisfaisante selon les banques parce qu'elle ne montre pas tous les risques. De plus, pendant la première moitié de 2007, les banques n'ont pas eu autant de temps pour évaluer les LBOs. Alors, il y a un risque que des transactions faites pendant cette période n'aient pas eu le bon prix quant à leur risque.

Il y a une grande différence entre les banques nordiques et les banques internationales quant à leurs modèles d'entreprise. Les banques internationales ne tiennent qu'une petite partie de la dette de chaque LBO, parce qu'elles gagnent de l'argent en vendant la dette de leurs LBOs. Le modèle d'entreprise des banques nordiques vise à maintenir une relation à long terme avec les clients, donc elles tiennent une grande partie de la dette. Le modèle d'entreprise des banques nordiques leur rends moins sensitives au marché secondaire de la dette des LBOs. Cela permet des multiples supérieurs dans les pays nordiques. Cependant, peut-être les banques nordiques sont-elles en train de s'internationaliser, ce qui pourrait faire s'aligner les multiples nordiques avec ceux du reste d'Europe.

Selon toutes les banques, les taux fondamentaux de crédit déterminent la taille de la dette. Pourtant, nous avons vu que les banques sont beaucoup plus influencées par les forces du marché qu'elles ne veulent l'admettre. Nous pensons que le désir de gagner de l'argent est la raison pour ce phénomène.

Finalement, l'environnement macro-économique et la liquidité sur le marché primaire et secondaire sont deux grandes influences sur les dettes des LBOs. L'environnement macro-économique est très important pour évaluer la stabilité future dans certaines industries. La syndication de la dette des LBO est aujourd'hui une partie vitale du procès des LBOs, et elle est fortement liée à la liquidité. Cependant, comme les banques nordiques tiennent la plus grande partie de la dette des LBOs, elles ne sont pas aussi affectées que les banques internationales.

Le futur comme il est vu par les banquiers
Concernant le développement de l'environnement macro-économique, une grande variation des réponses signifie une incertitude à l'égard de l'avenir. Ce qui est sûr, c'est que certaines industries ne sont plus convenables pour des LBOs.

En résumant les vues différentes des banquiers, nous pouvons présenter trois facteurs clés pour un retour de la liquidité sur les marchés primaire et secondaire de la dette syndiquée.

1. Le fait que des banques continuent à financier des LBO maintient une certaine liquidité sur le marché.
2. Beaucoup des banques ont de grandes dettes qu'elles doivent vendre, ce qui crée de la liquidité.
3. Les banquiers annoncent une augmentation de la liquidité, ce qui crée de la confiance chez les investisseurs.

Les banquiers pensent que les multiples vont rester au niveau présent pendant un ou deux ans. Quant au prix, les idées diffèrent. La plupart des banquiers pensent que le prix va rester au niveau présent, un banquier pense qu'il va augmenter à cause de l'augmentation des coûts bancaires, et un autre banquier pense qu'une réaction exagérée a trop fait hausser le prix ; donc il va baisser.

Resumen

Introducción y problema

Un LBO (Leverage buyout - Compra apalancada de una empresa) ocurre cuando una adquisición de una compañía está basada principalmente en deuda y poco en capital social. Se hace este tipo de adquisición para sacar beneficio de la palancada que la deuda crea. Normalmente se espera que las ganancias de la compañía comprada serán suficientes para poder reembolsar la deuda.

Muchas adquisiciones de este tipo son hechas por compañías de private equity que son compañías que recaudan dinero de inversores adineradas para luego invertirlo en empresas. Las compañías de capital riesgo (private equity) muchas veces buscan empresas donde ven una oportunidad para reconvertir, reenfocar o, a veces, ofrecer contactos y otra competencia a la empresa comprada. Por medio de eso tendrán una oportunidad más a largo plazo para ver ganacias en su inversión.

Los LBOs se hicieron populares en los ochentas, gracias a la deuda barata y que los compradores creían que podían beneficiarse de los activos subvalorados y de la ineficiencia en las empresas compradas. La lucha por las empresas subieron los precios lo que resultó en empresas demasiado endeudadas. Durante la crisis de préstamo y ahorro, en el principio de los noventa, resultó en intereses más altos y como resultado muchas de esas empresas quebraron. Tardó hasta el año 2004, antes la actividad global de LBO llegó al mismo nivel, en términos reales, como el final de los ochentas.

Durante el principio del siglo veintiuno, los LBOs han recobrado popularidad, sobretodo gracias a los intereses bajos y a que los bancos están dispuestos a tomar grandes riesgos porque tienen la posibilidad a sindicar los préstamos. Como resultado de la liquidez y las condiciones atractivas en el mercado secundario para préstamos, el mercado para préstamos sindicados llego en el 2006 a un nivel récord en muchos países alrededor del mundo. En el 2007, como consecuencia de la crisis de la subprime, el mercado de crédito se puso cada vez peor, y los bancos experimentaron problemas con vender los préstamos en el mercado secundario para préstamos. Como resultado, los bancos están poco dispuestos a tomar riesgos y eso ha bajado el volumen de LBO más grandes.

La tesis está escrito por orden de Öhrling’s PricewaterhouseCoopers (PwC), Transaction Services, Estocolmo, Suecia, en dirección de Viktor Håkansson. Presenta conclusiones sobre la determinación del precio, el múltiplo de deuda/EBITDA (beneficios antes de intereses, impuestos, depreciaciones y amortizaciones) y los instrumentos de endeudamiento, en el mercado Nórdico 2005-2008. Las siguientes preguntas han sido formuladas partiendo del problema:

- ¿Cómo se ha desarrollado el tamaño del préstamo, en términos de múltiplos de EBITDA, a LBOs? ¿Cómo se ha desarrollado el tamaño del capital social en porcentaje?

- ¿Cómo se ha desarrollado el precio de la deuda y el uso de diferentes instrumentos de endeudamiento?

- ¿Qué tiene más influencia cuando un banco presta dinero a este tipo de transacción y cómo ha cambiado durante el período?

- ¿Qué creen los professionales en el mercado financiero Nórdico sobre el futuro del mercado de deuda?

Método

Como es muy difícil y costoso ganar acceso a bases de datos necesarias para evaluar el mercado en una manera cuantitativa, hemos hecho un estudio cualitativo.

Hemos realizado ocho entrevistas con bancos que tienen mucha importancia en el mercado Nórdico de LBO. Al final, cuatro bancos Nórdicos y cuatro bancos extranjeros fueron elegidos. Los bancos que compartieron sus conocimientos y opiniones en este estudio fueron los siguientes: SEB, Nordea, Swedbank, Handelsbanken, Royal Bank of Scotland (RBS), HSH Nordbank, Bank of Scotland y Deutsche Bank.

Mandamos una guía de entrevista a los entrevistados en antemano para que pudieran prepararse para las entrevistas. No grabamos la entrevista porque pensábamos que los entrevistados hablarían menos libremente. Por eso tomamos notas durante las entrevistas y después mandamos las respuestas como las entendimos a los entrevistados para que pudieran revisarlas.

Teoría

LBOs son adquiciones usando mucha deuda, y normalmente son realizadas por una empresa de Capital Riesgo. Como la dueda aumenta el riesgo de la compañía, buenos objetivos son empresas maduras con bajo riesgo operacional lo que significa un flujo alto y estable de fondos.

El comprador, también llamado el patrocinador, contribuye con 20-30% del precio como capital social. La deuda preferencial representa la mayor parte del precio, normalmente entre 50-60%. Financiación Mezzanine normalmente cobra los 20-30% que faltan del precio.

La deuda preferencial es dividida en tres tranches (A, B y C) con 7, 8 y 9 años de vencimiento. Adémas, tienen diferentes intereses y sólo el tranche A es amortizando. La financiación mezzanine está subordinada a la deuda preferencial y debido a un riesgo más alto también tiene otro precio. A parte del precio más alto, a veces también tiene opciones de compra que pueden aumentar las posibilidades de un buen rendimiento.

Los bancos hacen un análisis de crédito extensivo para decidir la cantidad de dinero que quieren prestar. Intentan prognosticar el futuro del flujo de fondos de la empresa para poder decidir cuanta deuda puede soportar la empresa. Se usa EBITDA para contabilizarlo porque es lo que la empresa puede usar para pagar el interés.

Resultado y conclusiones

La deuda total/EBITDA fue 5,9x en el 2005, una cifra razonable según los agentes financieros. Después el 2005, esta cifra aumentó más y más en un promedio de 7x en el 2007. Desde la crisis creditica en la mitad del 2007, estos múltiplos han bajado rápidamente y ahora están alrededor el nivel del 2005.

Los precios (intereses) y la éstructura de la deuda también han cambiado mucho durante este período. Antes, un banco prestaba normalmente el dinero con solo un tipo de deuda. Ahora es más complicado con muchos tipos de instrumentos de endeudamiento y con varios bancos que dividen la deuda entre sí. En la primera mitad del 2007, muchas transacciones tenían una estructura con sólo tranche B y C de la deuda preferencial y con second lien, billetes de PIK, y a veces la financiación de Mezzanine como deuda subordinado. Los precios pasaron de estar a un nivel muy bajo en la primera mitad del 2007, al actual (Mayo 2008) estar en un nivel más alta que en el 2005.

En el 2006 y la primera mitad del 2007, los hedge funds (fondos de protección) tuvieron mucha influencia en el mercado y lo que demandaron fue lo que vendieron los bancos. La crisis de créditos hipotecarios en los Estados Unidos y la crisis crediticia que sigió hizo que los hedge fund desaparecieran del mercado y con ellos también mucha de la liquidez. La liquidez en el mercado secundario también afecta la manera de prestar dinero en el mercado primario. Antes Julio 2007, los bancos estaban seguros de que después de dar un préstamo a un LBO, pudieron vender la deuda en el mercado secundario. Con la crisis crediticia la liquidez en el mercado secundario desapareció con la consequencia de que muchos de los bancos se embrollaron con demasiada deuda que no pudieron vender en el mercado secundario. Con esta deuda en su cuenta tampoco pudieron dar préstamos grandes y el mercado primero también peridó mucha de su liquidez.

Hemos llegado a la conclusión que los bancos en el mercado Nórdico no han sido tan afectados de la crisis crediticia porque mantienen muy buenas relaciones con sus clientes. Todavia los precios y la éstructura en el mercado Nórdico ha cambiado pero ha sido un cambio muy beneficioso por los bancos. Por conseguiente, tendrán mejores oportunidades para hacer buenos negocios en el mercado.

Propuestas a estudios adicionales

En esta tésis nos hemos centradoen el tamaño, la fijación de precios y la estructura de la deuda para LBOs en el mercado Nórdico entre 2005-2008. Lo que podría ser intresante es hacer un estudio sobre los términos y condiciones que lleva la deuda, cuáles son los convenios restrictivos. Durante el boom del mercado en el 2007 con toda su competición, las empresas de Capital Riesgo pudieron negociar con muchos bancos para obtenter convenios muy débiles (cov-lites). Esto ha cambiado y ahora los bancos tienen más poder.

Zusammenfassung

Einleitung

Die Immobilienkrise in den USA, welche im Juli 2007 begann, verursachte weltweit finanzielle Turbulenzen und versetzte mehrere Finanzmärkte in Illiquidität. Diese Probleme haben die Bereitschaft und die Möglichkeit der Banken, Kredite für LBOs zu vergeben, beeinträchtigt.

Die Absicht mit diesem Aufsatz ist es, zu untersuchen wie die Probleme auf den finanziellen Märkten die Kreditvergabe für LBOs auf dem nordischen Markt zwischen 2005 und 2008 beeinträchtigt haben und wie sich das Verhalten der Banken in Bezug zur Grösse, Struktur und Preissetzung von Krediten für LBOs entwickelt hat.

Hintergrund

Ein fremdfinanzierter Firmenkauf ist ein Erwerb einer Firma der grösstenteils aus einem Kredit und wenig aus Eigenkapital besteht. Der Käufer erwartet mit dem Kauf der Firma, dass er mit Hilfe einer erheblichen Umstrukturierung in dem erworbenen Betrieb genügend Cash Flow wird erzeugen können, um die Schulden zu begleichen und dass er das Unternehmen nach einigen Jahren mit Gewinn wieder verkaufen kann.

Es bestehen Zweifel darin, wann diese Art von Erwerben das erste Mal aufgetreten sind. Viele glauben, dass alles mit dem Kauf von Orkin Exterminating Company durch Kohlberg Kravis Roberts & Co begann. Klar ist aber, dass sie erst in den 80er Jahren wirklich an Beliebtheit gewannen.

Oft werden LBOs von Akteuren durchgeführt, die in der Privatwirtschaft tätig sind. Deren Hauptanliegen ist es, von vermögenden Investoren Geld aufzubringen, um es in Geschäfte zu investieren, bei denen sie einen hohen Gewinn erzielen können. Dank den günstigen Krediten in den 1980er Jahren wurden diese Art von Investitionen sehr populär. Oft stand hinter dem Erwerb eine unfreundliche Übernahme, mit dem Hintergedanken, von zu niedrig bewerteten Anlagen und der Ineffizienz in dem Betrieb Profite machen zu können.

Die Betriebsleitung versuchte oftmals gegen die Übernahme ihres Betriebes anzukämpfen, indem sie Anteile der Firma zurückkauften. Dieses Verhalten trieb die Verkaufspreise in die Höhe, und als am Anfang der 1990er die Zinsen anstiegen, konnten die im grossen Mass verschuldeten Unternehmen ihre Zinszahlungen nicht mehr ausführen, welches zum Konkurs vieler Unternehmen führte. Erst im Jahre 2004 erreichte das Volumen von durchgeführten LBOs wieder das gleiche Mass wie Ende der 1980er Jahre.

Anfang des 21. Jahrhunderts begannen LBOs wieder an Attraktivität zu gewinnen, welches auf tiefere Zinsen und die höhere Bereitwilligkeit der Banken, grösseres Risiko einzugehen, zurückzuführen ist. Die höhere Risikobereitschaft lässt sich damit erklären, dass die Banken die Möglichkeit hatten, die Kredite mit anderen Banken zu teilen.

Wegen der Immobilienkrise in den USA im Juli 2007 erlitt der Kreditmarkt einen Rückgang, und es wurde für die Banken viel schwerer, ihre Kredite auf dem Sekundärmarkt für Kredite zu verkaufen. Momentan ist der Sekundärmarkt für Kredite illiquid, welches es schwerer macht, Geschäfte abzuschliessen und den Handel mit grösseren LBO-Abkommen gestoppt hat.

Dieser Aufsatz wird auf Auftrag von Öhrling's PricewaterhouseCoopers (PwC), Transaction Services, Stockholm, Schweden, unter Aufsicht von Viktor Håkansson geschrieben. Das Interesse dieser Firma besteht darin, ein besseres Verständnis über die Entwicklung der Preissetzung, der "debt-to-EBITDA" Multipel und des "debt instrument mix" für die Zeit von 2005 – 2008 auf dem nordischen Markt zu erhalten.

Problemdiskussion

Die Entwicklung auf dem Markt für LBOs und die womöglich bevorstehende Rezession in den USA können markante Folgen für den Cash Flow verschiedener Unternehmen und Industrien haben. Mit diesen gegebenen Voraussetzungen besteht unser Problem nun darin zu beschreiben, wie sich die Grösse, die Preissetzung und die Struktur der Kredite für LBOs von 2005 – 2008 auf dem nordischen Markt entwickelt haben.

Um dieses Problem zu lösen, wurden folgende Fragestellungen formuliert:

- Wie sieht die Entwicklung der Grösse der Kredite für LBOs aus, gemessen im Vielfachen des EBITDA?
- Welches ist die Entwicklung der Grösse des Eigenkapitals, gemessen in Prozent des Kaufpreises?
- Wie sieht die Entwicklung der Preissetzung der Kredite und die Anwendung verschiedener Finanzierungsinstrumente aus?
- Welches sind die Faktoren, die den grössten Einfluss auf die Kreditgewährung der Banken für LBOs haben?
- Wie sehen die Zukunftsaussichten für den Kredit Markt für LBOs aus, so wie sie von Fachleuten auf dem Finanzmarkt wahrgenommen werden?

Die Absicht der Studie

Die grundlegende Absicht des Aufsatzes ist es, ein Verständnis für die hauptsächlichen Einwirkungen auf die Grösse sowie die Preissetzung der Kredite für LBO-Transaktionen zu kreieren, wie sich diese zwischen 2005 und 2008 verändert haben, und in welchem Ausmass der nordische LBO-Markt von globalen finanziellen sowie auch makro- Turbulenzen betroffen ist. Die Absicht besteht auch darin, PwC eine Beschreibung der Finanzierungsentwicklung auf dem nordischen LBO-Markt in der genannten Zeitspanne zu liefern. Dies anhand von zusammenfassenden Berichten darüber, wie acht bedeutende Akteure innerhalb des nordischen Bankmarktes den Markt beschreiben und wie sie die zukünftige Entwicklung sehen.

Rahmenwerk der Studie

Diese Studie befasst sich mit fremdfinanzierten Firmenkäufen auf dem nordischen Markt, welcher die Länder Dänemark, Norwegen, Schweden und Finnland berücksichtigt.

Die Methodik

Für diesen Aufsatz wurden hauptsächlich qualitative Daten verwendet, welche durch quantitative Sekundärliteratur gestützt wurden. Dies um so gute und relevante Resultate wie möglich zu erhalten. Praktisch gesehen, ist damit gemeint, dass die Studie auf Interviews basiert ist und diese anhand von statistischen Informationen von Datenbasen, falls relevant, gestützt werden.

Um eine gute Abdeckung des nordischen Marktes zu erhalten, wurden folgende Banken interviewt: SEB, Nordea, Swedbank, Handelsbanken, Royal Bank of Scotland (RBS), HSH Nordbank, Bank of Scotland und Deutsche Bank. Diese Banken wurden anhand ihrer wichtigen Stellung auf dem nordischen LBO-Markt ausgewählt.

Die Studie inkludiert nicht alle Banken die auf dem nordischen LBO-Markt aktiv sind, daher besteht die Möglichkeit, dass die von uns erfassten Informationen nicht die Ansichten des ganzen Marktes vertreten. Da aber die interviewten Banken in den meisten Geschäften verwickelt sind, kann erwartet werden, dass sie gute Einsicht in den Markt haben.

Theorie

Fremdfinanzierte Firmenkäufe bestehen aus einem grossen Teil Eigenkapital und werden oft von privaten Aktienfonds durchgeführt.

Der Käufer muss meistens einen Betrag entsprechend 20-30% des Kaufpreises beisteuern. Der Kredit besteht grösstenteils aus einer vorrangigen Schuld, welche normalerweise aus etwa 50-60% des Kaufpreises besteht (2-3 Mal EBITDA). Das Mezzanin steht für den restlichen Teil, der benötigt wird, normalerweise zwischen 20 und 30% des Kaufpreises (1- 2 Mal EBITDA).

Die vorrangige Schuld besteht aus drei Tranchen (A, B und C) mit 7, 8 und 9 Jahren Laufzeit. Diese Schuld besteht normalerweise aus 60-70% A-Tranche, die restlichen 30-40% teilen sich die B- und C-Tranche. Die B- und C-Tranche lassen sich nicht amortisieren. Das Mezzanin ist der vorrangigen Schuld unterstellt und kommt oft mit zusätzlichen Sicherheiten.

Die Höhe des Kredites wird anhand ausführlicher Kreditanalysen bestimmt, welche das Unternehmen, den Markt sowie zukünftige Cash Flows des Unternehmens in Betracht ziehen. Um das Risiko so klein wie möglich zu halten, gehen Banken und Institutionen zusammen und teilen den Kredit unter sich auf. Diese Kredite werden heutzutage, wie irgendwelche andere Sicherheit, auf dem Sekundärmarkt gehandelt.

Auswertung

Bis und mit der ersten Hälfte des Jahres 2007 war der Markt für LBOs in einem Hoch und es wurde aktiv gehandelt. Mehr und mehr Akteure mischten sich in den Markt ein, grösstenteils institutionelle Investoren. Der LBO-Markt war sehr liquid und die Investoren waren bereit, höhere Kredite zu geben und gingen dabei hohe Risiken ein. Die grosse Konkurrenz auf dem Markt und das stabile Makroumfeld gab den Investoren grosses Selbstvertrauen. Die Nachfrage nach Krediten stieg ebenfalls, welches die Schuld – Multipel in die Höhe schiessen liess. Die Investoren waren auch eher bereit, hohe Kredite auf sich selber zu nehmen anstatt sie mit anderen Investoren zu teilen, um das Risiko zu minimieren. Die Preissetzung der Kredite war ebenfalls nicht mehr gleich hoch wie bis anhin.

Mit der Immobilienkrise in den USA wurde das Makroumfeld geschwächt und die Liquidität auf dem Markt verschwand. Die Investoren waren nicht mehr bereit gleich grosse Kredite zu vergeben und erwarteten dafür auch höhere Sicherheiten. Die Anzahl der ausgeführten LBO-Geschäfte nahm drastisch ab und der Markt stand beinahe still. Viele Investoren, die vor der Krise sehr hohe Kredite vergeben hatten, konnten es sich nicht mehr leisten, diesen Kredit zur Verfügung zu stellen und mussten ihn auf dem Sekundärmarkt zu einem tiefen Preis wieder verkaufen. Nordische Banken waren mit ihren Investitionen ein wenig vorsichtiger umgegangen als andere Investoren und litten deshalb nicht gleich stark von der Kreditkrise.

Nordische Banken sind mehr darauf fokussiert, eine gute Beziehung zu ihren Kunden aufzubauen und nicht nur daran interessiert, so viele Kredite wie möglich zu vergeben, um hohe Einnamen zu haben.

Während des Aufschwungs des Marktes waren die Eigenkapital-Forderungen gesunken, stiegen nach der Krise aber wieder auf ihr normales Niveau zurück.

Die Banken, die interviewt wurden, waren der Ansicht, dass der Markt sich seit der Krise im Juli 2007 ein wenig normalisiert hätte, aber immer noch illiquid sei. Die unterschiedlichen Banken hatten verschiedene Vorstellungen darüber, wie sich der Markt entwickeln wird. Einige glauben, dass der Markt noch für ein Jahr unverändert bleiben wird, während andere schon bald mit einer Veränderung rechnen.

Schlusswort

Die Studie dieses Aufsatzes zeigt uns, dass der nordische LBO-Markt eine markante Veränderung durchlaufen hat und sich in einer schwer zu analysierenden Lage befindet. Mit den durchgeführten Interviews ist es möglich, einen Einblick in den Markt zu erhalten und die Entwicklung zu beobachten. Jedoch ist es schwierig, sich einen Überblick über zukünftige Entwicklungen zu verschaffen, da sich sogar diejenigen, welche direkten Einblick in das Geschehen haben, nicht einig sind.

Abbreviations

Bps	Basis points.
CDO	Collateralized Debt Obligation.
EBITDA	Earnings before interest, tax, depreciation and amortization.
ECB	European Central Bank.
EV	Enterprise value.
HLT	Highly Leveraged Transaction.
IPO	Initial public offering.
KKR	Kohlberg Kravis Roberts & Co.
LBO	Leveraged buyout.
LCD	Leverage Commentary and Data (Standard & Poor's database).
LIBOR	London Interbank Offered Rate.
M&A	Mergers, acquisitions and divestitures.
MBO	Management buyout.
PE fund	Private Equity fund.
PIK notes	Payment-in-kind notes.
PwC	Öhrling's PricewaterhouseCoopers.
RBS	Royal Bank of Scotland.
S&P	Standard & Poor's
STIBOR	Stockholm Interbank Offered Rate.

Table of contents

1 Introduction

This chapter begins with a background of the topic. It is followed by a problem discussion where the general questions for the study are presented and argued for. Finally, the purpose further expresses the aim of this study.

1.1 Background

A leveraged buyout (LBO) is an acquisition of a company based mainly on debt and little on equity; these transactions are normally made to enable the acquirer to benefit from the financial leverage. The acquirer expects that the acquired company (the target) will generate enough money to repay the debt and it is common that the acquirer makes significant restructuring in the target company they have bought.

There are disagreements on when this kind of transactions started. Many believe that it started with the acquisition of Orkin Exterminating Company by Kohlberg Kravis Roberts & Co. (KKR), in 1964. Others believe the first LBO was made as early as 1955, but whichever it was they did not win much popularity before the late 1980s.[1]

Many of the LBOs are made by the private equity industry whose main objective is to raise money from wealthy investors and invest it in transactions where they can earn a high return. When the private equity companies invest, they often seek targets where it is possible to restructure, re-energize or refocus the existing business. By doing so, the payoff of their investment may come sooner and in a larger amount.[2] In the 1980s, this kind of acquisitions became very popular thanks to cheap loans and the acquirers' belief that they would be able to profit from undervalued assets and inefficiency in the companies they bought. LBOs were often made through hostile takeovers. In many cases, the management of the targeted company battled the private equity funds to gain control over the company by buying back shares. This behavior of course drove up the purchase prices and when the interests rose in the beginning of the 1990s, the overleveraged companies were not able to meet their interest payments, which led to the bankruptcy of several companies.[3] After the saving and loan crisis in the beginning of the 1990s it took as long as until 2004 before the LBOs reached as high levels of global activity in real terms as in the end of the 1980s.[4]

During the first years of the 21st century, LBOs have yet again gained popularity and in the recent years, deals have been made with leverage that has not been seen since the late 1980's. There are many explanations for the numerous LBOs, such as low interest rates and that banks are willing to take on larger risks because they are able to syndicate (distribute between

[1] American High-Income Trust, 2007/9. p. 9
[2] Smith, 2007/4
[3] American High-Income Trust, 2007/9, p. 10
[4] Financial Times, 2007/9

banks) the loans.[5] As a result of the strong liquidity and attractive terms, the syndicated loan markets reached all time highs in many countries in 2006, which also meant that the LBO-markets flourished.[6] In July 2007, due to the U.S. subprime mortgage crisis, the credit market had a downturn and it became much harder for banks to syndicate loans or trade on the secondary loan market.[7] The secondary market for debt is currently illiquid, which makes it much harder to make deals and has actually put a halt to the larger LBO deals.

This thesis is written on behalf of Öhrling's PricewaterhouseCoopers (PwC), Transaction Services, Stockholm, Sweden, supervised by Viktor Håkansson. Their interest is to obtain a better understanding of the development as regards the pricing, debt-to-EBITDA multiple and the debt instrument mix for the period 2005 - 2008 in the Nordic market. As they do not have the same insight in the market as bankers who are working with LBOs and syndicated deals, it is useful for PwC to learn about these bankers' views on the current and future market.

1.2 Problem discussion

The subprime crisis in the United States has caused turmoil on the financial markets worldwide, a so-called credit crunch. Uncertainty on how to price various securities and the uncertainty about the future has turned certain markets illiquid, such as the secondary market for syndicated loans. This market is where banks trade and manage credit risks from loans to LBOs, and the LBO market is thus affected by this illiquidity. In addition, a slowing U.S. economy and a potential recession can heavily affect the future cash flows of companies in several industries. Given these conditions, our aim is to describe how the size, pricing, and structure of the lending to leveraged buyouts on the Nordic market have changed 2005 – 2008.

The general measurement used by banks when measuring the size of the loan to an LBO is the debt-to-EBITDA multiple. The turmoil on the financial markets has affected the banks willingness to lend out larger amounts to LBOs, affecting this multiple. The current level of this multiple is important knowledge for PwC when doing consultancy work in LBO deals. Even if it differs in each deal, it is useful for PwC to know what bankers consider to be the current reasonable level. Since the banks normally are less inclined to lend when the liquidity on the market is low it is the authors' view that the equity part of an LBO should be larger when the liquidity is low and lower when the liquidity is high. For PwC's part, they need to know the up to date typical amount of equity when consulting in an LBO deal. To describe the development of the multiples and equity levels, and to verify the assertion concerning equity, the following questions have been formulated:

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[5] Carlbom, 2005/5
[6] Oakley, 2006/12
[7] Davies, 2007/8

- What is the development in the size of the loans, in terms of multiples of EBITDA, to leveraged buyouts?
- What is the development in the levels of equity, measured in percent of the purchase price?

The LBO market is ever changing and the period between 2005 and 2008 has been especially fluctuant. Different conditions on the financial markets have historically affected debt structure, instruments and pricing of debt. It is therefore interesting to see how the most recent developments have affected the debt in these aspects. Moreover, PwC has an interest in knowing what instruments the banks are currently using, and to which prices they come. The following question is aimed to cover these issues:

- What is the development in the pricing of debt (in terms of interest) and the use of different instruments?

There are a number of factors that influence banks' lending to LBOs; an instable macro environment is certainly one of them. Since the entrance of new players on the debt market and the increased demand for leveraged debt, there are reasons to believe that these influencing forces have changed. Furthermore, knowing the influences and their impact

- What are the major influences on banks' lending to LBOs, and how have they changed over this period?

After presenting a descriptive picture of the lending on the Nordic LBO market the last three years, it is interesting to see how professionals within the industry perceive the future. Their predictions can perhaps give a hint on how the market will develop the coming 12-24 months. Furthermore, it is to some extent their perceptions of the future that sets the terms today. The question below has been formulated to answer this:

- How is the future debt market for leveraged buyouts perceived by professionals within the industry?

1.2.1 Question formulation

To summarize the problem discussion, this study will be conducted in order to answer the following questions:

- What is the development in the size of the loans, in terms of multiples of EBITDA, to leveraged buyouts?
- What is the development in the levels of equity, measured in percent of the purchase price?

- What is the development in the pricing of debt (in terms of interest) and use of different instruments?
- What are the major influences on banks' lending to LBOs, and how have they changed over this period?
- How is the future debt market for leveraged buyouts perceived by professionals within the industry?

1.3 Purpose of the study

The purpose of this study is to identify and create an understanding of the major influences on the size and pricing of debt in Nordic LBO transactions, how these have changed between 2005 and 2008, and to which extent the Nordic LBO market is affected by global financial and macro turbulence. The purpose is also to provide PwC with a description of the financing development in the Nordic LBO market in this period by summarizing the perspective of professionals from eight major players within the Nordic banking industry, and to reflect their views on the future development.

2 Methodology

This chapter aims to describe the process of how the methodological approach is chosen and how the study is conducted. Finally, the accuracy and credibility of the study is discussed.

2.1 Methodological approach

2.1.1 Qualitative or quantitative study

There are two approaches in methodology theory: the quantitative and the qualitative method. A quantitative study is based on numerical information and aims to standardize and generalize information, whilst a qualitative study aims to create understanding. A qualitative study is characterized by its ability to cover all contents in a study[8], but has a risk of giving subjective and inaccurate responses[9]. The quantitative study does not have these downsides, but is on the other hand not able to guarantee a relevancy of all information given in the study[10].

In this study, there was need for both qualitative data and quantitative data. The questions concerning major influences behind the market development and bankers' views on the future could only be answered through a qualitative study, whereas the study of debt and equity levels, structure, and pricing would preferably be approached quantitatively. However, two particular reasons made us unable to use a quantitative approach in this thesis: Primarily, the fact that most information is not public or only reachable through sophisticated and expensive databases provided by Reuters or Standard & Poor's (S&P's). Secondly, the low number of LBO transactions during the spring 2008 did not permit a good generalization, or would come with a very high variance and insecurity. Furthermore, since debt levels can differ significantly between transactions, and the market situation could quickly turn recent data irrelevant, it was more interesting to know the banks' starting point. Therefore, a qualitative approach was considered to be the best approach for all subjects in this study.

2.1.2 Primary or secondary data

When conducting the study, primary data provides answers on specific questions and from angles that are not represented in other material. The secondary data on the other hand looks at the problem out of the different perspectives of different authors with distinctive interests. Using both types of data provides the opportunity to attain a comprehensive and complete result of the study.

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8 Holme, Solvang, 1997, p. 13
9 Wallén, 2003, p. 73
10 Holme, Solvang, 1997, p. 81

As our study is focused on the present situation and includes questions on the future, thus primary data is necessary to obtain answers on these specific questions. Secondary data was considered useful when relevant.

2.1.3 Conclusion - chosen mode of procedure

As a result of the reasoning above, the development of debt and equity levels as well as pricing of debt from 2005 to July 2007 would be best displayed quantitatively. However, when it comes to the current market situation, a qualitative approach based on primary data, backed by quantitative secondary data, was most appropriate for this thesis to obtain good and relevant results. Practically, this means that the study should be based on interviews and be backed by statistical information from sources such as S&P's databases when relevant. Since our problem is formulated from the point of view of the lender, the interviewees needed to be investment bankers, working with leveraged finance in the Nordic region.

2.2 Gathering of data

2.2.1 Choice of interviewees

In order to give a fair view of opinions from professionals in the financial industry on the Nordic market, we laid out basic criteria:

- The most prominent Nordic banks in this field must be included in the study since they are important players in this market, but moreover they demonstrate the Nordic way of doing business.
- In order to reflect international impact and highlight characteristics of the Nordic market, we need equally as many major foreign banks with subsidiaries in the Nordic region, preferably in Stockholm. Foreign banks have different backgrounds and experiences than Nordic banks and may therefore have different attitudes and behaviors in their way of doing business. Their opinions are of value since they might view certain situations differently.
- The banks must have been active in this business since 2005, and they preferably have a specialized division for leveraged finance or acquisition finance.

This resulted in the choosing of the four major Nordic banks, and four foreign banks with offices in Stockholm. Eight banks allow us to generalize, at the same time as it is a rather manageable number regarding interviews. The banks in this study were thus the following: SEB, Nordea, Swedbank, Handelsbanken, Royal Bank of Scotland (RBS), HSH Nordbank, Bank of Scotland, and Deutsche Bank. Contact details to people on RBS, Bank of Scotland, and HSH Nordbank were provided by PwC.

2.2.2 Producing the interview guide

The interview guide was created to give answers to our problem formulation. It included direct questions about the developments, but also questions on banks' different approaches and business models, which would enable us to see patterns and draw conclusions. PwC revised its content to see that it was in line with their interests. The interview guide is enclosed in the thesis as an appendix.

2.2.3 Procedure during interviews

The banks were contacted by telephone to make appointments with the interviewees. The interviews took place face-to-face at the banks' offices in Stockholm. Two banks canceled the scheduled appointments and were later interviewed by telephone.

The interviewees were provided with the interview guide in advance in order to give them a possibility to prepare themselves and search relevant material. During most of the interviews, the interview guide was followed question by question, but there were also some interviews where we did not follow any specific order. Since much of the information concerning specific deals is confidential, the interviewees mostly supplied information in general terms. We asked for them to concretize their reasoning with examples of anonymous transaction, and were given such examples by a few banks.

The interviews were not recorded, as we believed that the interviewees would speak less freely if recorded. Their answers, as perceived by us, were summarized and sent to them for possible corrections.

2.2.4 Gathering of additional information

In addition to the interviews, Handelsbanken, Nordea, and Deutsche Bank also provided information and statistics during interviews and through e-mail contact, and S&P provided us with data from LCD through e-mail contact.

2.3 Accuracy and trustworthiness of the study

2.3.1 Choice of banks and interview characteristics

The study does not cover all banks in the Nordic market, thus there is a risk that the number of banks interviewed is too small and that there are deviating opinions among others within this sector. However, the interviewed banks are very active and involved in the syndication of most deals on the Nordic LBO market and are therefore expected to be able to give an accurate picture of the market situation. It is our opinion that the fact that certain banks were recommended to us by PwC does not affect their trustworthiness negatively. Instead, our connections could have lead to a friendlier and more open approach to us by these banks.

When analyzing the interview it is important to bear in mind that the interviewee seldom gives a bad picture of its own company, which means that the answers can be biased. They are also restrained on the information they can give, both regarding specific deals and the bank itself. This could lead to them not giving the full picture of certain trends or situations, and should also be noticed. The interview guide was formed considering this phenomenon and the questions were formulated to avoid subjective answers. It is our opinion that the aggregate answers of all interviewees together should give a neutral picture. It is important to point out that their thoughts about the future LBO market are totally individual, and do not reflect a general market view.

Letting the interviewees take part of the questions one week before the interview enabled them to reflect for themselves and together with colleagues. This may have helped avoiding unconsidered answers. Another important feature considering the accuracy of the study was each interviewee's ability to check our perception of his/her answers for errors.

2.3.3 Other sources

A few banks provided us with information in the form of statistics produced by either themselves or extracted from LCD. These are highly reliable sources and up to date.

The background and theoretical framework are based on articles and studies, published by renowned institutions, and books written by prominent authors. The publish date has been taken into account, since this market has gone through rapid changes.

Information has also been gathered from companies' own websites. For example, the annual report from the American High-Income Trust, which is a part of the Capital Group Companies, provided a good description of the history of LBO deals. Since much of the information on the companies' own websites may be biased to give a better picture of the own company concern was taken before accepting the information.

3 Theoretical framework

This chapter aims to describe the principal theories and empirical framework from which this study is conducted. Primarily, an overview of the general characteristics and history of leveraged buyouts aims to provide the basics of the concept and parties involved. It also shows how the lending to leveraged buyouts and use of different debt instruments has varied over time. Secondly, agent theories describe the bank's risk perception of leveraged buyouts and how leverage can increase credit risk, but also turn management more efficient. Finally, the bank's risk management of LBO transactions is described: Credit analysis determines the amount and structure of the debt, restrictive covenants are then used to reduce risky management behavior, and syndication of the loan is used to spread the credit risks among banks.

3.1 Leveraged buyouts

A leveraged buyout is the process of buying a company by using a high percentage of debt, with the purpose of paying back the debt with the target company's cash flow. After paying off the debt, the company is sold to allow the investors to capitalize on the investment, aiming for a minimum annual return of 25-30%.[11]

3.1.1 Definitions and characteristics

The leveraged buyout is normally carried out by a small group of investors, a PE fund or an LBO fund (also called sponsors). There are also management buyouts (MBO), where the deals are performed by the executives of the company. A company subject to an LBO can be private or public, but there are also divisional buyouts where the investors purchase a division or subsidiary of a conglomerate company.

Whether it is an LBO or an MBO, the management's share of equity in the acquired company is in both cases significantly increased. The management is often very important for the continuing performance of the firm, why the acquirer encourages them to increase their stake in the firm in order to align their interests with the other acquirer's. An improvement in performance of the target is associated with an LBO, and it is normal to sell off non-core business units when buying an entire company.

General characteristics of good LBO targets are mature companies with stable and high levels of free cash flows (low operational risk), experienced management willing to take risks, room for significant cost reductions and low pre-LBO debt levels, the last criteria being crucial.[12]

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[11] Arcot, 2008

[12] Arcot, 2008

3.1.2 The LBO process

Phase one - Raise capital

In the first step of the LBO process, the LBO fund or the PE fund undertaking the LBO assembles the lending group and obtains equity commitments. A multitude of parties is involved in raising capital for the deal, including debt. Since available equity shrinks, the management's stake in the deal increases significantly. In addition, it is normal to establish a management incentive system with warrants or stock options conditional on reaching specific performance targets. Studies have shown that gains are positively correlated to management ownership.[13]

The capital structure is designed to maximize the return of the equity-holders while making the deal attractive for debt-holders. It is known as vertical strips when the same investors participate simultaneously in different layers of the deal. If necessary, bridge financing from either debt or equity sources is provided until conditions and/or timing is good for the issuance of mezzanine.

Typical LBO transaction stucture

Layers	%	Cost of capital	Features	Securities used	Indicative sources
Senior debt	50-60%	7-10%	5-7 years 2x -3x EBITDA 2x interest coverage Pledged collateral: PPE, recievables, inventory	Revolvoing bank credit Secured bank term debt Seucred privately placed debt	Commercial banks Credit companies Insurance companies Pension funds
Mezzanine financing	20-30%	10-20%	7-10 years 1x-2x EBITDA Credit rating below investment-grade Diverse orders of seniority and amortization	Subordinated high-yield bonds Subordindated privately placed notes Payement-in-kind bonds (PIKs) Equity kickers (Warrants or convertibility features)	Public market Insurance companies Pension funds LBO/Private Equity funds
Equity	20-30%	25-40%	4-6 year exit strategy LBO/PE firms hold 70-90%, management holds remaining	Common stock Preferred stock Preferred PIK stock Warrants	LBO/Private Equity funds Management Institutional investors

Table 3.1 **Source: Arcot, 2008**

Senior debt is bank loans in different tranches with various maturities and spreads, usually:
-*Tranche A* with maturity of 7 years and a spread of 225 basis points above LIBOR/STIBOR.
-*Tranche B* with maturity of 8 years and a spread of 275 basis points.
-*Tranche C* with maturity of 9 years and a spread of 325 basis points.
Tranche A accounts for the largest part, normally 60-70%. Tranches B and C (called bullet tranches) are each constituting 15-20%, and do not need to be amortized.[14] The senior debt is secured by the company's assets and shares[15].

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[13] Arcot, 2008
[14] Finansiell stabilitet, 2005/1, p. 8
[15] ECB, 2007, p. 12

Mezzanine, which is Italian for “middle”, fills the gap between senior debt and equity.[16] Mezzanine investors are subordinate to senior lenders, but senior to equity investors.[17] This kind of financing is often used by companies, where re-financing through equity is not an option, and where they do not have enough assets or enough current cash flow to qualify for senior debt. Apart from this, mezzanine financing is often used in high leverage transactions, such as LBOs, management buy-ins, and other kind of acquisitions.[18]

The interest costs of mezzanine debt usually are between two and eight percent higher than those of senior debt. Nevertheless, the borrower can benefit from other qualities the mezzanine financing provides. In general, it is less expensive than traditional equity financing and will simultaneously be less dilutive.[19] Mezzanine is also attractive for investors, because of the “equity-kicker”, which allows investors to benefit from the borrowing company’s ability to generate current and future cash flows. These “equity-kickers” can come in the form of warrants, options or convertibles and gives the investor the right to buy future stock in the company. From investors’ point of view, they are able to benefit from both the capital preservation and current-pay features of a loan, and at the same time, profit largely from the “equity-kicker”.[20]

Phase two - Purchase

The acquisition is usually done via a specially formed acquisition vehicle, which is a shell entity whose only asset is cash. The acquisition can be done through either an asset sale or a stock sale. Either way, the acquirer is able to pledge the shares or the assets of the target as collateral for the loan.

Units that are not strategic for the business are put up for sale in order to quickly reimburse some of the debt.

Phase three - Increase free cash flow

In order to pay off the debt as fast as possible, measures are taken in order to increase the cash flow of the company. These are consolidation or reorganization of production, improvement of inventory and working capital management and the elimination of perks and benefits to employees. When taken private, the management is also released from the pressure of quarter reports and is able to operate with a more long-term view.[21]

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16 Fabozzi, Choudry, 2004, p. 251
17 Reed, Weston, 1999, p. 151
18 Fabozzi, Choudry, 2004, p. 252
19 Fabozzi, Choudry, 2004, p. 255
20 Fabozzi, Choudry, 2004, p. 254
21 Arcot, 2008

The LBO or private equity fund monitors the company closely and usually provides industry expertise knowledge.

Phase four - Exit

The time limit of an LBO is two-sided. First, the investors want to capitalize on their investment within a reasonable time, usually between five and eight years.[22] Second, the legal life of an LBO fund is limited to between ten and twelve years, because of the limited partnership structure.

The exit can be done via an asset sale to another buyer, a reverse LBO (which equals an initial public offering, IPO), via a private placement or by re-leveraging the company and using the money to repurchase the equity.[23]

3.1.3 History of leveraged buyouts

The history of leveraged buyouts can be divided into three major stages: the 1980s, the early 1990s, and post-1992. Leveraged buyouts did exist before the 1980s, but known as bootstrap transactions.[24]

The 1980s

In the 1980s, typical targets for LBOs were manufacturing firms and non-regulated industries with at least predictable or low financing requirements. High-tech firms generally had a shorter history of demonstrated profitability, were thought to be more risky and were therefore considered less interesting.[25] More than 50% of the purchase price of LBOs consisted of debt financing. The loan usually consisted of senior and mezzanine debt in a private placement or public offering as “high-yield” notes or bonds.[26] The companies who managed to return to the public markets were the relatively more successful ones.[27]

Underlying forces in the economic and financial environments increased the number and dollar volume of mergers and restructuring activities, and they also stimulated increased use of LBOs and MBOs. In the period between 1982 and 1990, the sustained economic growth had intrinsic influence on business expansion and the development in all categories of mergers & acquisitions (M&As). Leveraged buyouts peaked in 1988.[28]

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[22] Finansiell stabilitet, 2005/1, p. 4
[23] Arcot, 2008
[24] Weston, Mitchell, Mulherin, 2004, p. 407
[25] Weston, Mitchell, Mulherin, 2004, p. 414
[26] Weston, Mitchell, Mulherin, 2004, p. 414
[27] Weston, Mitchell, Mulherin, 2004, p. 410
[28] Weston, Mitchell, Mulherin, 2004, p. 410

In the early 1980s it was possible to close LBO deals on favorable terms; the prices went down to prices as low as three to four times EBITDA. These multiples rose sharply, up to 10 times EBITDA, in the end of the 1980s as LBO activity peaked in 1988. However, the market in the late 1980s began making some corrections that were observed as a movement towards lower transaction prices, larger equity commitments, lower debt ratios, and lower up-front fees. So from 1989 to 1991, the LBO activity decreased.[29]

During the 1980s, junk bonds and high yield bonds were used and they helped financing high-risk growth firms and realizing their potentials. Even if it was risky, high-yield financing was not the elementary reason for the problems of the savings and loan industry during the 1980s. The main problem was that the economic basis for the existence of the industry was removed by the changing nature of the financial markets.[30]

The 1990s

The downward impact on the prices of high-yield debt was predictable and the recession of 1990 and 1991 brought the rising levels of economic activity to an end. The LBO market almost dried up as a result of this activity decrease, which had supported the revenue growth and profitability of individual companies. The leveraged buyout activity experienced an extreme fall of almost 90% of its value from 1989 to 1991.[31]

Post-1992

The sustained economic growth the economy experienced after 1992 made the size of aggregate LBO transactions reach new highs. In 1999, the number of transactions had almost reached 900% of the volume of 1991. The period after 1992 included innovative approaches that made LBOs increasingly applied to high-growth, technology-driven industries instead of slow-growing industries. The purchase price-to-EBITDA multiples moved down toward 5-6 again and the percentage of equity in the initial capital structure went up to 20-30%.[32]

In the time between 1991 and 1993, after the end of the Gulf War, firms were obsessed with risks of debts and did everything to get rid of them. Many firms used higher business cash flows, resulting for example from rise in consumer spending in 1992, to pay down their debts instead of investing or hiring more employees.[33] During the same period, a massive restructuring of U.S. corporate treasurers’ bond debt occurred due to reinforced effect of their return to their equity markets.

[29] Weston, Mitchell, Mulherin, 2004, p. 427
[30] Weston, Mitchell, Mulherin, 2004, p. 428
[31] Weston, Mitchell, Mulherin, 2004, p. 427
[32] Weston, Mitchell, Mulherin, 2004, p. 430
[33] McCauley, 1999, p. 158-159

The number of realized LBOs resumed its growth through an increase of market activity of investment banking houses, large commercial banks, and traditional LBO sponsors. Innovative approaches by investment banking-sponsoring firms increased. The development of joint deals of financial buyers for the purchase on a leveraged basis was one way to handle the financial press. In 1996, the secondary loan market developed and the use of syndication of Highly Leveraged Transactions (HLT) to other banks increased.[34]

Between 2001-2003, the purchase price-to-EBITDA multiples decreased, much due to the instability on the financial markets. In 2004, the multiples increased and continued to do so for the three coming years.[35]

3.2 The bank's risk perception of leveraged buyouts

The view of the bank's risk perception of leveraged buyouts is well displayed through the principal-agent problem, because this theory points out the risks of information asymmetry and unaligned interests, and how these risks should be eliminated through restrictive covenants and control. Furthermore, banks analyze the qualitative and quantitative characteristics of the business and the company in order to complete their picture of the credit risk.

3.2.1 Principal-agent problem

The principal-agent problem describes the problems caused by asymmetric information and unaligned incentives between a principal and an agent. In the LBO situation it is practice to assume that the management and the equity holders' interests are aligned, especially since managers usually hold a significant stake in the company. Thus, in this situation, the bank is the principal and the management is the agent.[36]

Moral hazard and adverse selection

In the principal-agent theory, moral hazard is a term that describes the situation where the agent and the principal have different exposures to risk, and when the behavior of the agent affects the agent and the principal differently. In addition, the principal can only see the result of the agent's action, not the action itself.[37]

The adverse selection is a situation where the principal would not choose the agent, had he the full information about him. The principal has information about the qualities of the different

[34] Weston, Mitchell, Mulherin, 2004, p. 431
[35] ECB, 2007/4, p. 14
[36] Lindahl, 2000, p.33
[37] Lindahl, 2000, p.38

agents, but not of each individual. The principal therefore faces the risk of hiring an agent that will not act desirably according to the principal.[38]

3.2.2 Agency cost and benefits from high leverage

There are both agency costs and benefits from high leverage. There are risks of both underinvestment as well as excessive risk-taking, severely increasing the default risk for debt-holders. However, at the same time high leverage eliminates waste of money by the management - the free cash flow problem.

Underinvestment problem

The underinvestment problem is the situation in which equity-holders pass up on profitable investments because existing firm debt captures most of the benefits, as debt-holders have the primary claim on the firm's cash flow. Even if the investment has a positive net present value, the equity-holders are indifferent or even negative to the investment.[39]

Excessive risk-taking problem

The excessive risk-taking problem describes a situation where the equity-holders have incentives to engage in risky projects, even with negative net present values. In this situation, the equity-holders' payoff is similar to that of a call option on equity with the strike price as the face value of the debt. The value of a call option is increasing with volatility, so the equity-holders have an incentive to maximize the value of the call by choosing risky projects.[40]

Free cash flow problem

The free cash flow problem is an agency cost of equity. Too much free cash flow distorts the investment decisions of the management and makes them invest in visible/fashionable/fun industries, un-related industries for diversification purposes, projects that pay off early, areas related to the managements' expertise, family or political connections as well as investments that minimize the risk of job loss.[41]

In a leveraged buyout, the managers' share of the equity increases, which aligns their incentives with the equity-holders. Simultaneously, it increases the risk of underinvestment or excessive risk-taking. On the other hand, when increasing the leverage, the increased costs of debt and the risk of bankruptcy are effective tools to discipline managers, since what used to be the free cash flow now is required to pay off the debt services.[42]

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[38] Lindahl, 2000, p.38
[39] Lindahl, 2000, p.52
[40] Lindahl, 2000, p.51
[41] Berk, J., DeMarzo, P., p. 507-510.
[42] Arcot, 2008

3.2.3 Market and industry development

The company's ability to pay back the debt is dependant on the future cash flows, determined by the future demand for its services and/or products. This is set by the future conditions of the particular industry and the market in general, and should be viewed with the company's business plan.[43]

3.2.4 Other factors affecting banks' risk perception

Competency, knowledge, and understanding are important factors for the perception of risk. Individuals are more willing to put a stake when they have knowledge about the situation than when they are unfamiliar with the situation, even though the possible outcomes are the same. Therefore, banks with departments specialized in leveraged buyouts act differently than banks without such knowledge, both initially when making the loan, and later, when monitoring the company. Also, a well-known company with good reputation is perceived by banks as being less risky. Banks are usually feeling less need of surveillance of such a company.[44]

An increase in uncertainty in the financial markets makes it harder for the lender to separate good credit from bad credit as a result of asymmetric information, which increases the problem of adverse selection, and makes lenders less willing to lend.

3.3 The bank's risk management of leveraged buyouts

As the first step, the bank analyzes the company in order to decide the amount of the loan, measured in multiples of EBITDA and decides which collateral to pledge as security for the loan. Then, to handle the risks and costs deriving from asymmetric information and unaligned interests between the bank and the company, banks specify restrictive covenants. These covenants are either result-based or behavior-based. Finally, in order to manage credit risks from each LBO, the bank syndicates the loans with other banks, and is also able to trade these loans on the secondary debt market.[45]

3.3.1 Due diligence and credit risk analysis

The credit analysis of LBOs is normally much more extensive than to other loans because they are perceived as more risky due to high leverage. Banks leading a syndicate typically carry out their own due diligence.[46]

The credit risk analysis shows the level of debt the company can cope with in a downward scenario. The bank uses both quantitative and qualitative methods in its analysis. The qualitative analysis looks at industry and company fundamentals in order to predict the

[43] ECB, 2007/4, p. 34
[44] Lindahl, 2000, p. 64
[45] ECB, 2007/4, p. 34-36
[46] ECB, 2007/4, p. 34

stability of the firm's cash flow, and evaluates the company's management and its business plan. The quantitative analysis looks at key ratios and is focused on the company's ability to pay off debt, notably indicated by interest cover, its debt service cover, and cash flow- related ratios.[47]

3.3.2 Multiples of EBITDA and debt structure

The finance industry's method to measure the amount of debt given to LBOs is as a multiple of the target company's EBITDA. This is because the EBITDA is the total cash flow available for debt services, after all operational expenditures are paid for. Therefore, EBITDA indicates how much debt service the company is able to pay.[48]

However, the debt multiple alone does not convey the whole picture of the company's ability to pay back the debt. The capital structure is very important, since different types of debt come with different costs. For example, high use of mezzanine debt is more risky, since the yields are higher and thus decreases the company's free cash flow. The amount of amortizing debt in the capital structure is also a big indicator of the financial risk, since amortizations gradually delever the company and thus decreases its financial risk. As previously mentioned in the history of LBOs, the capital structure depends on market liquidity, regulations and interest rates, and varies over time.[49]

3.3.3 Restrictive covenants and monitoring

In order to control the risks derived from the principal-agent problem, the bank embed restrictive covenants into the senior debt contract, and conduct close monitoring of the company.

The result-based covenants are demands on the company to maintain certain key ratios, based on the company's financial reports. These are ratios where the net debt, operational income and amortizations or debt interest payments are related to each other, and indicate the company's ability to service its debt.[50]

Category	Covenant	Basis	Caracteristic
Based on financial reporting	Debt service coverage ratio	Results	Reactive
	EBITDA / net financial expenses (NFE)		
	EBIT + interest income / interest expenses		
	Net debt / EBITDA		
	Net debt / EBITA		
	Minimum equity		

Table 3.2 Result-based covenants used in Swedish banks. **Source: Lindahl, 2000**

[47] ECB, 2007/4, p. 34
[48] Arcot, 2008
[49] Arcot, 2008
[50] Lindahl, 2000, p.118

The behavior-based covenants are set to eliminate the agency costs deriving from asymmetric information and unaligned interests. Notable covenants are the ones controlling investment, acquisitions or issuing new debt.[51]

Category	Covenant	Basis	Caracteristic
Trust-building	Financial reporting Confirmation on completing of agreements Obligation to notify when breaking agreements General obligation to inform Environmental and other laws	Behavior	Reactive / proactive
Financing	Issuing new debt Priority of debt Mutual cancellation	Behavior	Proactive
Dividends	Dividends	Behavior	Proactive
Production / investing	Sale of assets Options on additional securities Investments Mergers and acquisitions	Behavior	Proactive
Specific for LBOs	Transfer of debt contracts Ownership	Behavior	Proactive

Table 3.3 Behavior-based covenants used in Swedish banks. **Source: Lindahl, 2000**

The covenants being reactive denote the characteristic of not being able to react until a deviation has occurred. The covenant being proactive means that a deviation is predictable and possible to avoid before occurring.[52]

3.3.4 Syndication of loans

Syndication of loans enables banks to reduce their risk through portfolio management and by the easy exits provided by the secondary debt market.

Loans to large business borrowers are risky for the bank to make by itself. To reduce the risk, banks syndicate the loans, which means that a group of banks go together to provide the loan. This is an important aspect of the banks' portfolio management. When holding a portfolio of assets that are not correlated, a diversified portfolio, the average risk of the portfolio is less than the combined weighted risks of each asset. In fact, when holding a portfolio of more than 30 uncorrelated assets, the individual risks are negligible.[53]

In a syndication, a lead bank, the underwriter, makes the loan and then enters separate participation agreements with other banks, called participants. The bank that underwrites the loan receives an upfront fee of normally 70 bps on the total debt. Some banks are dealing with

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[51] Lindahl, 2000, p.119
[52] Lindahl, 2000, p.119
[53] Berk, J., DeMarzo, P., p. 332

LBO transactions just to earn the upfront fee, and then distribute the whole debt, keeping nothing or a minimum part of the debt. This is called skimming. [54]

Syndicated bank loans are nowadays traded on the secondary debt market as any other security and these activities have grown in volume. Banks engage in secondary loan participations to manage risk, but they also earn some extra money on the loan they give. They sell the loan on the secondary market for a slightly higher price. There is a demand on the loan because of its high interest rate.[55]

In general financial theory, the secondary market serves two important functions: First, it makes the financial market more liquid since it makes securities in the primary market more desirable and more easily sold. “The more liquid an asset is relative to alternative assets, holding everything else unchanged, the more desirable it is, and the greater will the quantity demanded be”.[56] Second, the secondary market determines the prices of the security sold in the primary market, since buyers in the primary market will not pay a higher price than what they expect to achieve when selling on the secondary market. Therefore, the conditions in the secondary market are important for the primary market, and most important for longer-term securities.[57] These effects have a similar impact on the secondary market of syndicated bank loans. When making a loan, the corporation receiving the loan has no responsibility to redeem the loan until it matures. A liquid secondary market enables banks to manage their liquidity by turning long-term loans into cash when so desired. Thus, trading syndicated bank loans also lowers banks credit risk exposure because of the easy exit it provides.

3.3.5 Holders of leveraged debt

Investment Banks

Nearly all investment banks hold debt from LBOs, either through underwriting or participation in LBO transactions. Normally an underwriting bank retains around 20% of the debt on its own balance sheet. However, there are different approaches between banks. Some banks hold portfolios of debt in order to collect interest payments while others underwrite transactions and then syndicate the full debt, the latter ones just focus on earning fees. In a study made by ECB, these different approaches are referred to as the “portfolio” and the “capital turnover” business model.[58]

Hedge funds

Hedge funds are aggressively managed funds that use rather risky strategies such as leverage and long, short, and derivative positions, in order to generate high returns to investors. The

[54] ECB, 2007, p. 17,
[55] Mishkin, Eakins, 2000, p. 17
[56] Hudson, Colley, Largan, 2000, p. 93
[57] Mishkin, Eakins, 2000, p. 17
[58] ECB, 2007, p. 17-18

investors are normally required to keep their capital in the fund for at least one year. Hedge funds are set up with a limited number of partners and the lower investment limit is often a substantial amount. Since hedge funds serve sophisticated investors, they are normally unregulated.[59]

CDO funds

Collateralized Debt Obligations are funds that issue asset-backed securities based on an underlying pool of bonds or loans. A special-purpose vehicle invests in either a mix of investment grade and sub-investment grade bonds or bank loans (mostly investment graded) and funds it by issuing several tranches of securities. The purchasers of the securities rely on the cash flows from the underlying bonds or loans in order to receive interests and principal payments.[60]

3.4 Summary

Leveraged buyouts are acquisitions using a high level of debt, and are normally carried out by PE funds. Since the leverage creates high financial risk, good targets for LBOs are mature companies with low operational risk signified by high and stable cash flows.

The acquirer, also called sponsor, contributes with equity that is usually around 20-30% of the purchase price. Senior debt accounts for the largest part of the debt structure, which is usually 50-60% of the purchase price (2-3x EBITDA). Mezzanine fills the gap that is needed to cover the purchase price, usually 20-30% (1-2x EBITDA),

The senior debt is divided into three tranches (A, B, and C) with 7, 8, and 9 years maturity. Tranche A usually accounts for 60-70% of the senior debt, comes to the price of 225 bps above STIBOR/LIBOR, and is amortized. The bullet tranches B and C split the remaining 30-40% of the senior debt, are each carried at additional 50 bps (275 and 325), and are not to be amortized. The mezzanine consists of notes that are subordinate to the senior debt. These are high-yield bonds and/or PIK notes (payment-in-kind). To attract investors, the mezzanine notes usually come with embedded options (warrants or convertibility features). The senior loan is issued by investment banks, whereas mezzanine can be issued by banks but normally by mezzanine funds.

The bank uses an extensive credit analysis in order to decide the amount of the loan. The credit analysis aims to determine the future cash flows of the company and how the company would cope with an economic downturn. The debt granted for a loan is measured as a multiple of the company's EBITDA, since the EBITDA is the cash available for debt service and thus indicates the company's ability to pay interest and principal payments.

59 Hudson, Colley, Largan, 2000, p. 93

60 Das, 2001, p. 634

Since the target companies generally have very low operational risk, the banks' perceptions of the major risks of an LBO derive from principal-agent problems. Unaligned interests and different risk attitudes between the principal (the bank) and the agent (the company's management) can cause the management to behave in a way that would increase the credit risk for the bank. Two major problems are the underinvestment problem and the excessive risk-taking problem. The first problem is when the equity-holders pass on a profitable investment opportunity because most of the benefits are captured by the debt-holders. The latter problem implies that the value of the equity-holders' stake increases with volatility, whereby they are encouraged to take high risks.

To address the risks caused by the principal-agent problem, the bank embeds restrictive covenants, result-based and behavior-based, into the senior loan. Result-based covenants are key financial ratios that the company must maintain, whereas behavior-based covenants are designed to control the behavior of the management of the company, like for instance putting restraints on the company's permission to acquire other companies.

The final measure in the banks' risk management of LBO deals is the syndication of loans where several banks and institutions take part in a loan, efficiently spreading the risk between them. These loans are nowadays traded on a secondary market like any other security and the major traders on this market are banks, hedge funds, and CDO funds.

3.4.1 From theory to analysis

The theoretical framework has described the standard features of an LBO transaction, figures that are seen as standard pricing and amounts of lending, and how these are measured in the industry. In addition, the theory has also showed how pricing and lending can vary over time. Using the same measurements of key ratios and figures as given by the theory, the empirical studies will describe the development in lending to LBOs during the period 2005-2008, a period that is characterized by large changes in the financial environment.

The executive summary of this thesis is by part a summary of the observed changes in pricing and lending, and by part an analysis of the major forces influencing banks' lending. In order to determine these influences, the empirical study will cover several features of banks' risk management of LBOs, notably syndication of loans and credit analysis. As the liquidity on the secondary market for leveraged debt has grown in both size and importance, loan syndication will be dealt with separately in the chapter of empirical findings.

4 Empirical findings

This chapter describes the development of the LBO market 2005-2008, as illustrated by the interviewed bankers. Additional information is taken from material provided in interviews or from databases by companies such as Standard and Poor's.

This chapter is divided into three major sections according to different characteristics of the material. The section on debt multiples and equity, which also includes banks' credit analysis of LBOs, are dealt with in one section since they are consistently measured and dealt with by banks over this period. On the other hand, pricing of debt and the use of different debt instruments are highly volatile, and since they are also highly related, these are dealt with together. The syndication of loans is affecting all aspects of LBO financing, but is dealt with separately in order to make it easy to follow.

The information in this chapter is presented as the common view of the interviewees on the different subjects. Where opinions have differed, these are expressed in the text. The additional data in graphs are used as foundation or to graphically display the reasoning of the interviewees.

4.1 Debt multiples and equity

This section on debt multiples and equity describes the development of the amount of loan given to LBO transactions and the major reasons behind the changes observed, as described in the interviews. It also accounts for the changes in the amount of equity in LBO transactions and how it has changed over this period. The bankers' description of their credit analysis as well as their view on the major forces behind the changes in lending are summarized. Finally, their views on the future of this market are described.

Banks and institutes such as Standard and Poor's distinguish between senior debt and total debt, and measure them as a multiple of the company's EBITDA. The senior debt includes all senior tranches. The difference between the senior and the total debt consists of debt instruments subordinate to the senior debt, usually mezzanine.

4.1.1 Leverage development pre-credit crunch

The period from 2005 until the first signs of a credit crunch in July 2007, the leverage increased as a result of a stable macro environment and increasing demand of debt by new holders of debt on the Nordic market.

Increase in leverage

From being what several bankers refer to as standard reasonable levels in 2004-2005, the senior and total debt as a multiple of EBITDA rose with around 2x EBITDA until the credit crunch set in, in July 2007, according to the interviewees.

Development in total leverage

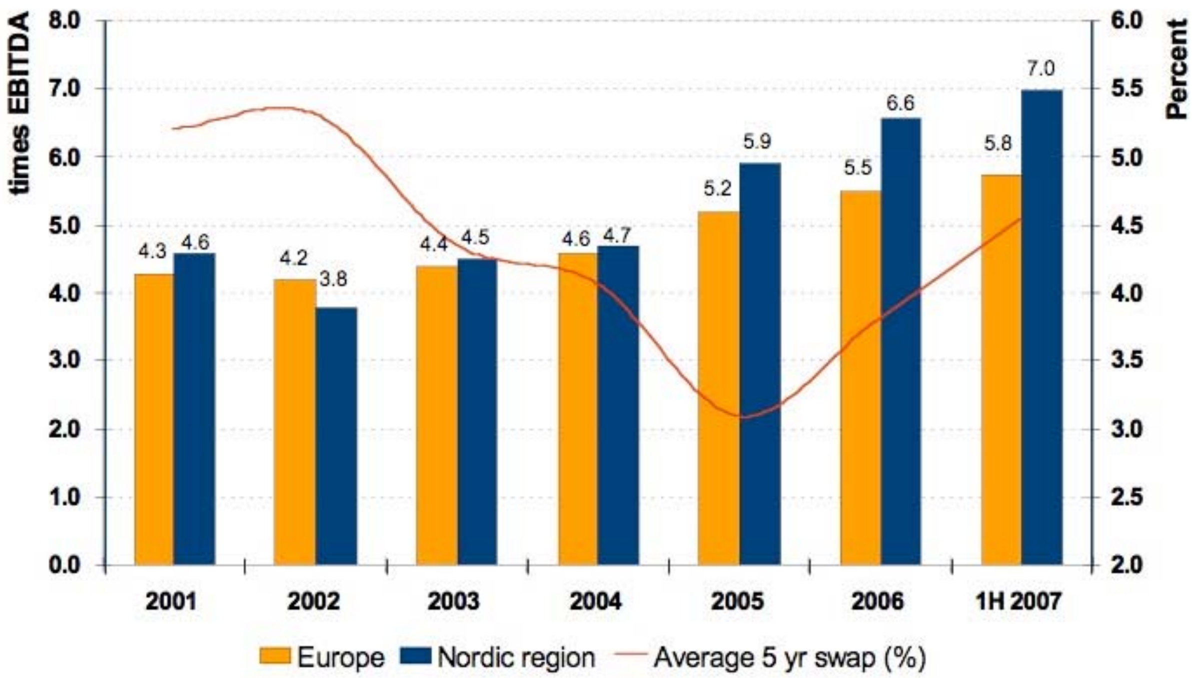
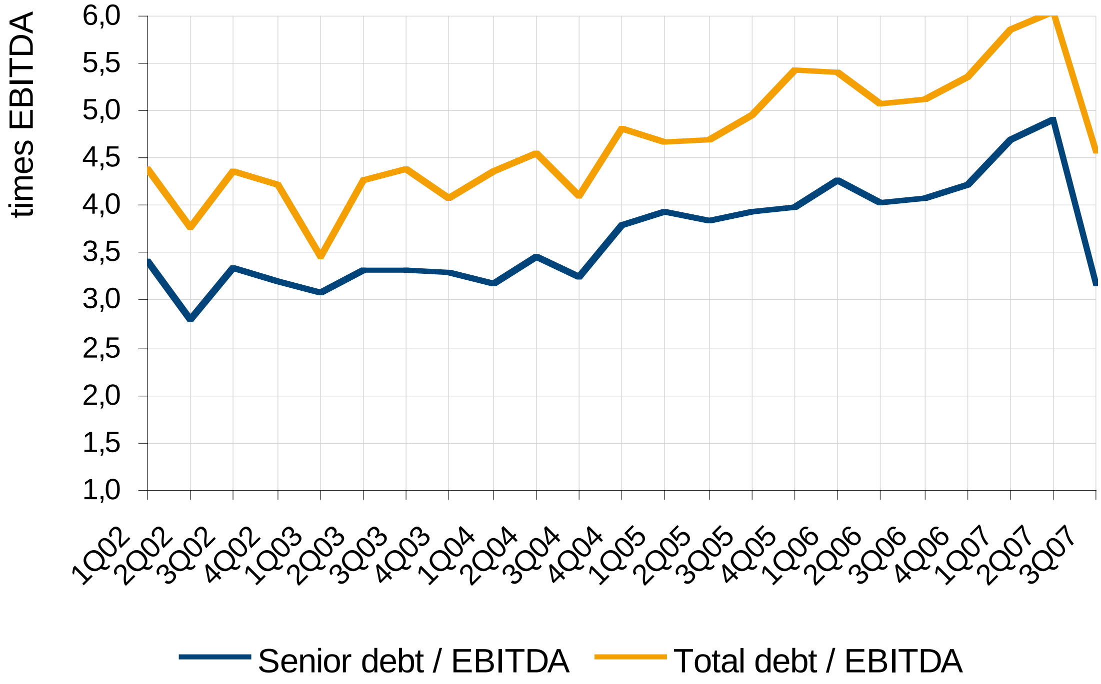


Chart 4.1 **Source: Handelsbanken Capital Markets**

Chart 4.1 indicates the development of the average total debt on the European and Nordic market. As clearly shown, the Nordic region has historically higher leverage than the rest of Europe, as expressed in interviews. In the Nordic region, the multiples for senior debt could be as high as 7x EBITDA in the first half of 2007, and the total debt as high as 9x EBITDA, as mentioned in the interviews.

Debt multiples on the European market



Graph 4.1 **Source: Handelsbanken Capital Markets**

Graph 4.1 shows the development of leverage on the European market, and indicates the relationship between senior and total debt. A sharp drop can be seen from the second quarter to the third quarter of 2007.

Recapitalizations and the use of reverse flex

An apparent feature of the market during the first half of 2007 was the recapitalization of old LBOs. As an example provided by one of the interviewees, a company that was bought in February 2005 had a senior debt multiple of 4.9x and a total debt multiple of 6.3x was releveraged in April 2007 with a rise in the senior debt multiple to 6.2x and the total debt to 8x.

Oversubscription by participants in a syndication drove banks to use reverse flex, which meant to lower the margins and change the debt structure and choice of instruments. The ability to flex is a clause embedded in the debt contract to ease banks' syndication. It is normally used to decrease senior leverage and to increase pricing but was during this period used reversely. In one case from the healthcare industry, provided by one of the interviewed bankers, a deal made in March 2007 with a senior debt level of 4.8x and a total debt of 6.6x was flexed and restructured into having a senior debt of 5.8x and 6.6x in total debt (the mezzanine part was abandoned and replaced by second lien).

Major reasons for the development

Several of the interviewees point out two major factors driving the development of increased leverage. These were:

- Stable macro environment: Low interest rates, low unemployment rates and a steady global growth in GDP were some of the fundamentals for the stable the macro environment during several years. This lead to an increased confidence in valuating companies as well as banks' credit assessments.
- Increased competition on the debt market: This period saw new players such as banks entering the market, but most important was the entering of institutional investors such as hedge funds and CDO funds. These new participants were willing to buy debt on the market at high levels, seeking return because of the low interest rates. The increased demand of debt on both the primary and secondary market fueled an increase in leverage multiples, as banks did not find any trouble syndicating their loans. People within the industry forgot about the credit fundamentals and cared only about syndicating the loans to skim money.

Another interviewee points out aggressive behavior of the sponsors as one of the reasons for an increase in leverage. Other reasons mentioned in several interviews were a large capital base among PE houses and the increase in recapitalization as a way of exit.

4.1.2 Leverage development post-credit crunch

The subprime crisis' impact on the LBO market was twofold; the sharp drop in liquidity caused syndication problems among banks and the imposing risk of a U.S. recession made banks more careful; both leading to a huge drop in LBO volumes in Europe, as seen in chart 4.2, and to a decrease in leverage multiples.

LBO volumes in the European market

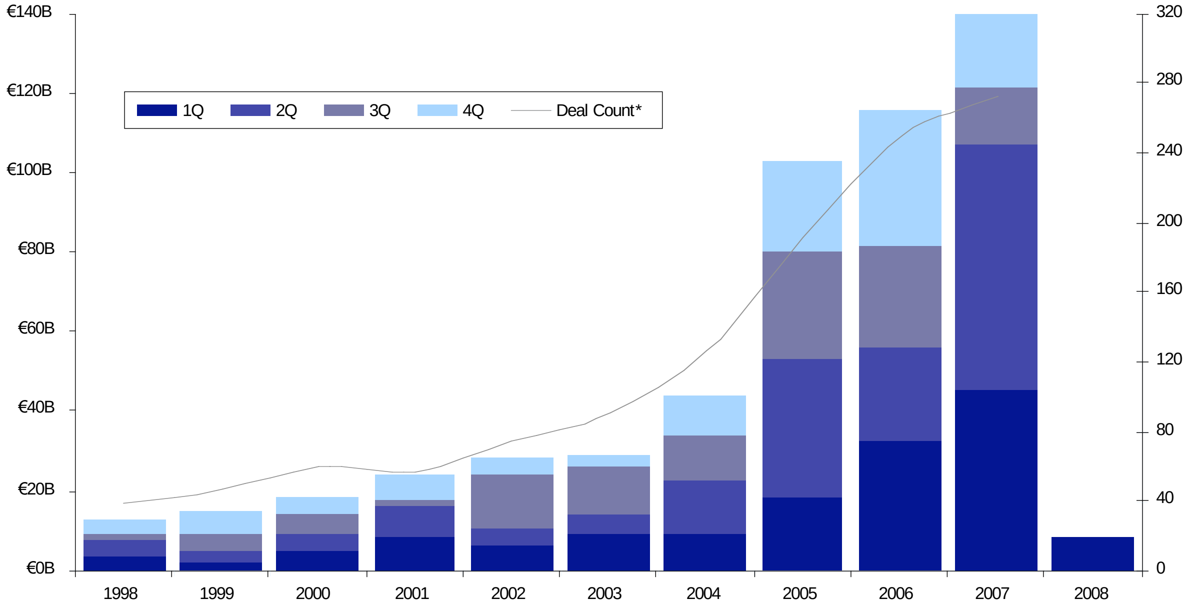


Chart 4.2 **Source: LCD, Standard & Poor's**

Leverage development and present situation

The multiples continued to be high for a period after the credit crunch, because deals that were set before July 2007 now were carried through. They have since then dropped 1-2x EBITDA and are now around 4-6x EBITDA. One bank says that the rule of thumb is currently 4x senior debt and 1-2x mezzanine. Another bank says that their latest deals have varied between 3.5x and 5.2x in senior debt. One bank made two deals in April this year with senior multiples of 2.8 and 5.1 (a total debt of 2.8x and 6.5x). One deal made in May by a foreign bank had a senior multiple of 4.7x, a mezzanine multiple of 1x and a PIK (payment-in-kind notes) multiple of 0.8. Several banks say that the multiples now are on the same levels as in 2004-2005.

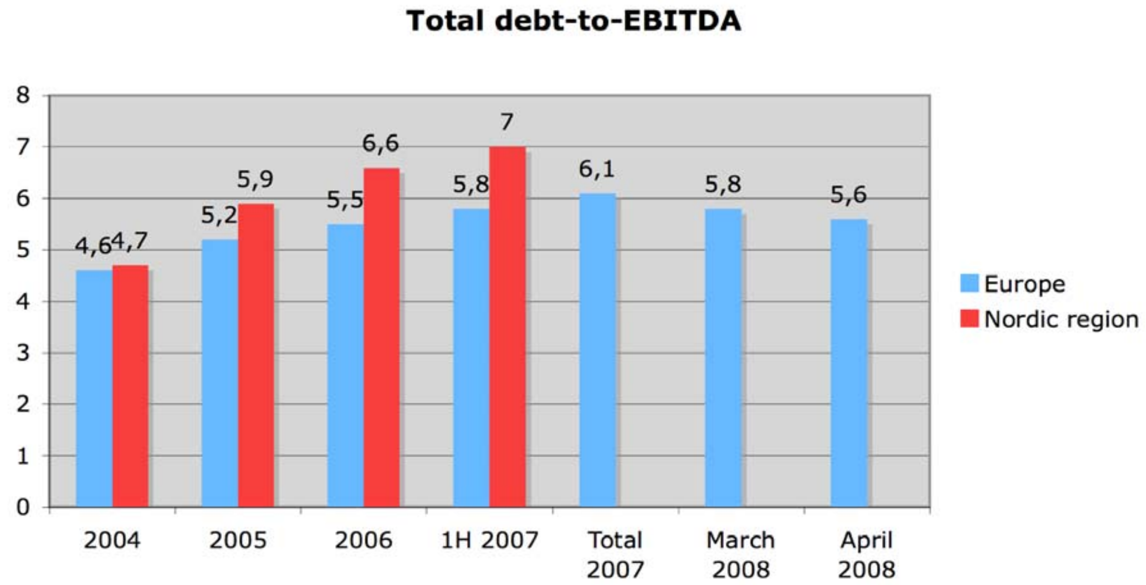


Chart 4.3 **Source: European Leveraged Review April 2008, LCD, Standard & Poor's**

According to chart 4.3, the total debt-to-EBITDA shows a declining trend and the Nordic levels for the first period give an indication of where they might be right now. On European basis, the senior debt dropped from 4.6x in 2007 to 4.1x in April 2008 and other debt-to-EBITDA (which consists mostly of mezzanine) increased from 1.1x in 2007 to 1.3x in April 2008.

Major reasons behind the change

The subprime crisis in the United States set a global financial crisis in motion, which heavily affected the LBO market, both through shortage of liquidity and through bad future scenarios.

- The subprime crisis took the liquidity out of the market, since the institutional investors such as hedge funds and CDO funds that earlier made up the largest part of the market, now disappeared. This has lead to an increased syndication risk and banks can no longer syndicate loans with as high multiples or as low margins as before. Even if the credit fundamentals enable an unusually high leverage for a company, they cannot deviate too much from the general market view, because then they will have trouble finding participants for the syndication.
- The subprime crisis also spurred general macro economic concerns. The fear of a potential U.S. recession affects credits with a high part of their income coming from the United States. Particular industries are affected in the sense that they are not considered at all for an LBO, while others are moderately approached by banks.
- The financial turmoil has led to an increase in banks' funding costs, which are being passed on to borrowers.

4.1.3 Development of the equity levels

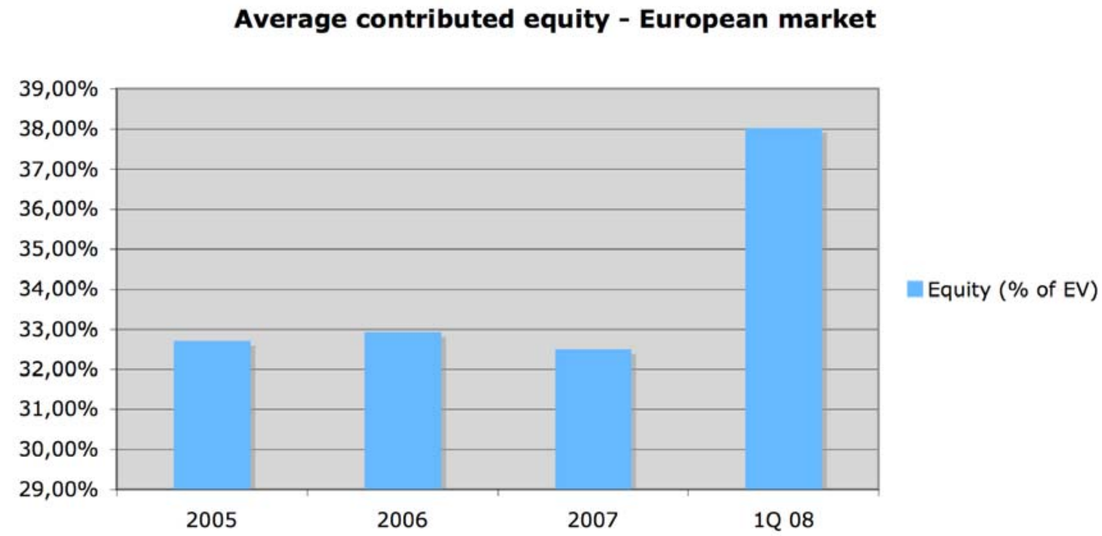


Chart 4.4 **Source: Standard & Poor's**

Chart 4.4 demonstrates the changes in the average contributed equity in LBO deals on the European market. It demonstrates a rather sharp rise for the contributed equity in the first quarter of 2008. From the interviews it is possible to tell that the Nordic market has developed in a similar manner.

The congruent view among banks is that the preferred equity level depends much on each individual company case; normally a smaller and riskier deal requires a larger part of equity than a bigger and less risky deal. Contrarily, one of the interviewees says that nowadays, the equity part is normally larger in a big deal. The reason for this was that the illiquidity on the market puts restraints on the size of the senior loans for big deals, forcing the buyer to cover with more equity.

Most of them do not find the equity part very important, what they find important is the company's ability to generate cash flow, which in the end will repay the debt. Still, some banks have a minimum demand of equity in an LBO deal, which in those cases is around 30-40 % of the total value of the deal. According to one bank, this figure was down on 20-25%, during the boom in 2007, but is today back on 30%. Another bank says that the normal amount of equity is today at 40%, with covenants of 35-37.5%. One banker says that the average amount of equity is today, 41% in Nordic LBO transactions. Another bank says that their demanded amount of equity is between 25-40% and that they seldom work outside those ranges.

4.1.4 Credit analysis and due diligence

As described by the interviewees, the credit analysis, carried out by the lending bank, aims to determine the amount and structure of the loan to an LBO transaction. Underwriters as well as participants perform their own credit analyses, however to a much larger extent when taking the lead of a syndication, according to the banks. Key issues for the lender are the characteristics and reliability of the company’s future cash flows and banks assess these through company and industry analyses, due diligence, and the use of financial modeling.

The starting point of the credit analysis is to understand the company’s business and the industry it operates. Banks say that they look at the performance of the industry and of the target company relative to others in that industry. The industry’s sensitivity to changes in the economic cycle is crucial, as predictability and stability of cash flows are key characteristics of a good LBO target. Industries such as retail and construction are considered to be very sensitive to economic downturns, whereas healthcare, for instance, is unaffected by macro changes. The company’s performance is measured through key financial ratios, track record and market position. The market position is analyzed by looking at competition, barriers to entry, existence of fixed contracts etc. One bank points out the importance of sitting down with the management of the company to get an understanding of the company and the business, while most banks do not mention having extensive personal contact with the management.

The banks use financial modeling, simulations of pro forma income and cash flow statements, to see the future cash flows. These models stretch up to ten years and are based on data provided by the company. Several banks say that the major issue is to evaluate if the data provided by the company is reasonable and trustworthy.

One bank points out that competition among banks can have an impact on the amount of debt granted for a loan and that they had been much more market oriented in recent years. This particular bank thinks that bigger deals need better syndication teams, therefore they have set up a specialist loan distribution team, focused on selling loans, and pointed out that the distribution is embedded in the process and is here to stay. Another bank says that there is a tendency of higher multiples to transactions that are financed entirely on the bank’s own balance sheet.

The choice of debt structure is, by some banks, said to depend upon the company’s business, while one bank says that the choice of debt instruments is related to investor demand. The banks also address the refinancing need when the full debt is due and payable. An acceptable level of the refinance need is 1-2x EBITDA at year nine, even though the deals normally are recapitalized after 2-4 years.

All banks take part in the due diligence presented by the vendor as well as the buyer's confirmatory due diligence. No banks but one carry out their own due diligence. This particular bank always performs its own commercial, financial, and legal due diligence, through external parties like McKinsey. The other banks point out their ability to specify their requirements on the report and to ask for additional information or request certain issues to be addressed particularly.

Not all bank are satisfied with the financial due diligence carried out by external parties. One of the interviewees thinks that the PE houses' attractiveness as clients has made the companies performing the due diligence lose their objectivity. The reports have lost some of their criticism and are becoming more of a series of confirmations on what the PE houses want to hear. They ask accountants to stick their heads out a bit more; to question if business plans and strategies are consistent with the companies history and the industry's future. Another banker points out the importance of addressing all issues correctly in the executive summary and to highlight the risks. This bank was recently faced with a company turning bad, where the particular risk was neglected in the due diligence. One banker is of the view that the financial due diligence actually can be quite bad. It does not address the risks enough. As the banks' major concerns are the risks, the financial due diligence should focus on risks. What is mentioned is also that Swedish providers of advisory services are better with due diligence than similar companies on the other Nordic markets.

During the boom of the market in early 2007, the banks had less time to look at the due diligence. One bank says that they sometimes only requested confirmatory due diligence on certain issues. Today, the buying process takes more time, which has brought the due diligence back to what is seen as more reasonable standards. Some banks also point out a shift of focus in their requirements of the due diligence towards a potential economic downturn and its consequences.

4.1.5 The future as perceived by the industry

The aggregate view of the bankers is that the prevailing levels in debt-to-EBITDA are somewhat stable. Beliefs are that the banks will act very cautiously during the next twelve months. The U.S. shows heavy signs of going into a recession and the UK and Spain are not far away. This will lead to a more conservative approach by the banks for the next 12-24 months. More focus is put on credit fundamentals and risk versus reward. The Nordic banks have to work more closely together, syndicating the deals from day one through club deals. The use of flex in the market will also increase.

The PE houses are wealthy and are confident that the market will come back, according to one banker. As the stock owners of companies are getting increasingly used to lower market values, PE funds' market improves. Another banker has noticed an improvement in investor confidence during the last few weeks. However, according to another bank, there might be a change from private equity to industry-based buyouts as industrial companies sit on large amounts of capital at the same time as target values go down.

4.2 Debt structure, pricing and maturity

This section on debt structure, pricing, and maturities describes the changes in use of different debt instruments and their pricing during 2005-2008. The development of debt instruments is first described in general, later recounted more extensively, and is finally accompanied by the main reasons for the observed changes and the bankers' view on the future development.

There have been large changes over the last couple of years in both the debt structure and the debt instruments used in an LBO deal. There are many factors that concern the structuring and pricing of debt. The general opinion of the banks is that it depends on each specific deal. The competition on the market is also an important factor which more or less decides who will be able to make demands in an LBO deal.

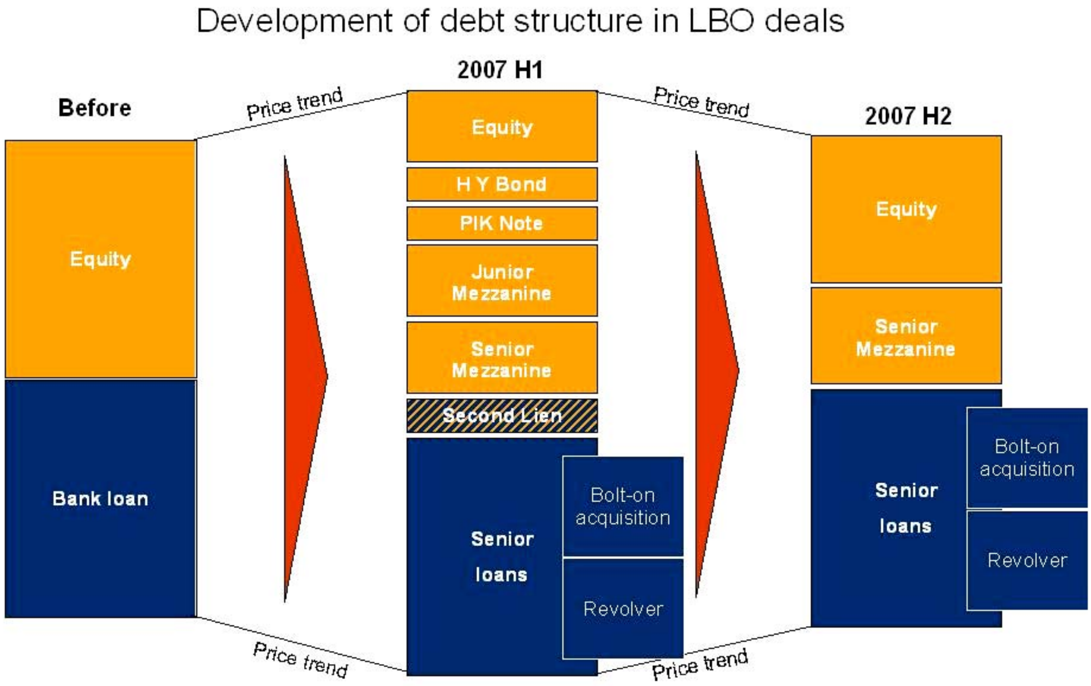


Figure 4.1 **Source: Handelsbanken Capital Markets**

Figure 4.1 describes how the debt structure and use of debt instruments have developed the recent years. Earlier, the LBO capital structure consisted of quite a large part of equity and a debt part that did not include as many debt instruments as seen in 2007. The debt was generally amortized and, in many cases, one bank was the sole lender and took on the whole risk by itself. This changed and reached a point where very large syndications were formed and the risk was spread over many participants. This is discussed more in chapter 4.3.

In the first half of 2007, the market had become very competitive. The banks generally required a lower part of equity and the debt instruments used where many more. The more competitive market forced the banks to lower their margins and change the structure of loans in favor of less attractive structure for the lenders. The debt instruments changed and new instruments, which had not been used before, became a part of regular deals. Many times when the demand for the loans was high and they were oversubscribed, a reverse-flex was executed.

After the credit crunch some players on the market disappeared and with them also liquidity. The banks became more reluctant to take on large risk, which also changed the structure and the pricing of the loans. The conditions for the lenders became sounder and the debt structure went back to a form that looked more like the one seen before the market hype in the beginning of 2007.

The following passages will provide a more detailed picture of the development in structure and pricing of each instrument used in an LBO deal. A description of the general opinion within the bank industry about the future development of the debt structure and pricing is also presented.

4.2.1 Senior debt

In general, the senior debt fills up the largest part of the capital structure of an LBO deal. A standard figure has been around 50% of the total capital. Figure 4.2 describes the transformation of the structure of senior debt. Since this study outlines the period between 2005 and 2008 it is important to add that the tranches of senior debt in 2005 were similar to the tranches that figure 4.2 describes for 2003.

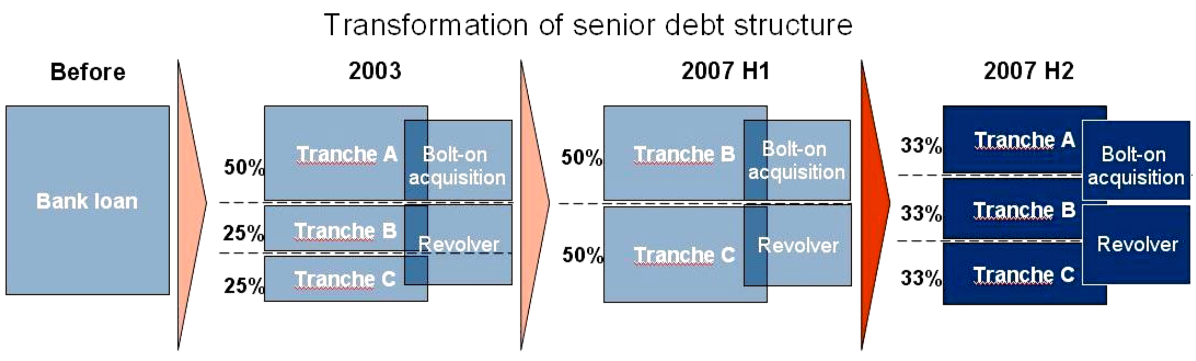


Figure 4.2 **Source: Handelsbanken Capital Markets**

The senior debt has traditionally been divided into three tranches; A, B and C. It can also include additional debt for bolt-on acquisitions and a revolver part. The bolt-on acquisition debt is a debt the company can use when they see a good opportunity to acquire another company because it fits very well with the company's current line of business. The revolving line of credit is for the company to use when they are in extra need of cash flow.

Out of tranche A, B and C, the tranche A is the only amortizing tranche. When the market peaked in the middle of 2007, deals were made with little or without any amortizing tranche at all. This had the effect that many companies did not deleverage at all and this made it more likely for the companies not being able to repay the loan when it came to its due. Taking an example from one of the interviewed banks, an LBO deal was made in March 2007 with less than eight percent of amortizing debt. Today (May 2008), the deals are once again made with a larger part amortizing debt, on average not as large as in 2005, but still larger than in the first half of 2007. As said by one of the interviewees, the reason for the disappearance of tranche A for a while in 2007 was the large demand for B and C bullet tranches from hedge funds and CDO funds. Those funds were not interested in amortizing debt since it did not correspond with their business model. According to another of the interviewees, in the first half of 2007, institutions like hedge funds bought between 60 and 70 percent of all the B and C tranches.

Pricing and maturity of senior debt on the Nordic market

	Standard	**2007 H1**	**2008**	**Maturity**
Tranche A	225 bps	200 bps	250-300 bps	7 years
Tranche B	275 bps	250 bps	275-350 bps	8 years
Tranche C	325 bps	300 bps	325-400 bps	9 years

Table 4.1 **Source: Interviews**

The pricing of senior debt has had a standard of 50 basis points (bps) difference between the different tranches. These numbers are what the bank charges above the STIBOR/LIBOR, depending on, in which market they operate. As seen in table 4.1, which is information collected from the banks during interviews, the pricing on the Nordic market has experienced changes during the covered period of time. The pricing of 225 bps on tranche A, 275 respectively 325 bps on tranche B and C had been standard for many years. Much due to increased competition on the market and the aggressive behavior from the PE houses, the pricing reached record low levels in the first half of 2007. This quickly changed because of the credit crunch and the illiquidity on the market. The prices during the second half of 2007 and the beginning of 2008 have been higher than the former standards. One bank mentioned that they have seen larger variations of the prices on the European and American markets than on the Nordic market. They explained this observable fact as a consequence of the better relationship the Nordic banks have to their customers.

According to the majority of the interviewed banks the maturity of the senior debt tranches has always been around 7, 8 and 9 years for tranche A, B and C. One bank mentioned that they can se a trend of shorter maturity, another bank points out that a shorter maturity is required if the bank wants to sell the debt in the U.S., where shorter maturity is standard.

4.2.2 Second lien

According to the interviews, the second lien debt, a debt that is senior to mezzanine debt but subordinate to senior debt, had its peak in 2007. The banks state that second lien had its popularity because of its lower price and that it did not include any warrants as mezzanine does. One bank states that second lien debt was only created to lower the cost of debt which favored the sponsors.

A normal pricing for second lien during its peak was a coupon rate of 375-600 bps above the STIBOR/LIBOR. Then, after the credit crunch there was suddenly no demand for second lien debt, the banks were not willing to lend money with such little return to such high risk.

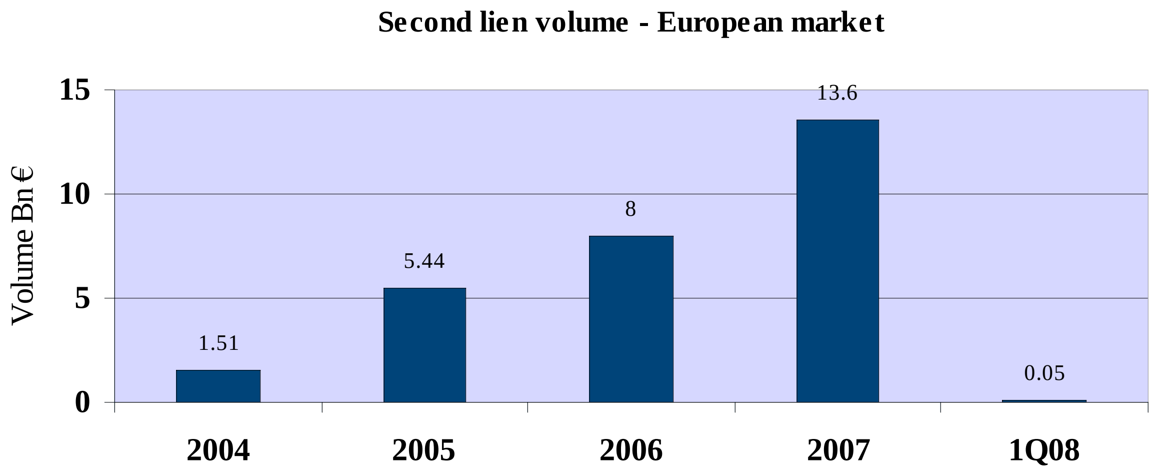


Chart 4.5 **Source: Standard & Poor's**

Chart 4.5 shows the second lien volume in the European market. Even though the graph describes the European market, the Nordic market had a very similar development according to the interviewed banks. As illustrated in chart 4.5, the second lien volume had a quite extreme increase between 2004-2007, but an even extremer fall from the peak to a nearly non existent market. As a matter of fact, there was only one second lien transaction made in Europe during the first quarter of 2008 according to Standard & Poor's.

4.2.3 Mezzanine

The mezzanine almost disappeared during the peak of the market, in favor for the second lien debt. After the credit crunch the banks and investors started to demand higher return that has enabled the mezzanine debt to return as a part of the LBO deal financing, in turn the second lien debt has been squeezed out.

The mezzanine debt is normally divided into a cash part and a PIK (payment-in-kind) part with rolled up interest. It has also been quite common with an “equity-kicker”, usually in form of warrants, which could provide a larger profit to the debt holders if the company was successful. Before the market boom, the price of mezzanine debt was around 1100 bps above the STIBOR/LIBOR and warrants were often attached to the deals, according to a couple of the interviewed banks. When the market boomed, fewer mezzanine deals were made, but the ones that still took place were made with STIBOR/LIBOR plus 800-850 bps and without any warrants. According to the interviewed banks the price of mezzanine debt today lies around 975-1100 bps and the warrants seem to be returning even though they are heavily opposed by the sponsors. To take an example one bank brought up, the pricing of the mezzanine debt of a deal made in May 2008 was 400 bps for the cash part and 575 bps for the rolled up interest part.

The higher pricing has improved the conditions for the investors and the return of warrants in a mezzanine deals boost possible profit investors can earn in a deal. The “equity-kicker” is liked by the banks but is on the other hand less liked by the sponsors whose deal gets less profitable with such conditions.

The maturity of mezzanine debt is generally 9-10 years and has not changed during 2005-2008. The senior debt is normally what decides the maturity of the mezzanine debt. The senior debt has to be repaid before the mezzanine can be repaid which consequently gives mezzanine a longer maturity.

4.2.4 Payment-in-kind (PIK)

The PIK notes has rolled up interest, which means that the interest on the loan is not paid before the maturity. This arrangement attracts hedge funds, since they are not interested in amortizing debt. This was also mentioned by a couple of banks during the interviews. Two of the interviewees said that the PIK has almost disappeared, but another bank gave an example of a recent deal made with more than 10% of the total debt structure as PIK, where the PIK had a pricing of 900 bps. This means that PIK is still used as a debt instrument but obviously without cognizance of some banks.

The maturity of PIK notes varies from case to case. In general, it is not repaid before senior debt and when the company actually can repay the debt. Since the interest rolls up every year the PIK notes can grow quite large if the debt is not repaid at an early stage.[61]

4.2.5 Main reasons for the observed changes

In general; what has been driving these changes is the liquidity on the market. During the period of high liquidity, the competition was more intense, the PE houses were more aggressive, and deals were done with riskier papers and lower margins. Then, after the credit crunch the institutional investors more or less disappeared from the market, and with them also a large chunk of the liquidity. Their disappearance caused the prices to go back to earlier levels and in some cases actually higher levels than before. This has improved the conditions for the banks and they are now able to get better margins on the deals.

The banks themselves also state that the pricing of debt depends on the competition on the regional market. Also macro development, such as the risk for and economic downturn can affect the pricing. In those cases the banks look at the industry and how an economic downturn could affect the specific company. The underlying interest as STIBOR/LIBOR does not affect the banks pricing but it does obviously affect the buyer.

What has also been said about the pricing of debt on the market is that the banks should not deviate too much from what is standard. If one bank starts to offer lower prices the others have to follow if they want to do any deals; that kind of chase for the customers is not anything the banks want to achieve. Furthermore, it is harder for the banks to syndicate the loans if the debt-to-EBITDA multiple is high and the margins are low, even if credit fundamentals support it. A high debt-to-EBITDA multiple and low margins increase the risk of the loan and decrease the yield.

4.2.6 Future development as perceived by the industry

The opinions within the bank industry about the pricing of debt differ considerably. One of the interviewees thinks that the pricing of debt will go down. The reason for this opinion is that the market overreacted and increased the prices more than necessary. Three of the interviewees thought that the prices would stay the same in the near future. This was explained as a cause of the conservative and the overall wait-and-see atmosphere on the market. The third opinion, shared by two of the interviewees, was that the prices would increase even more; increasing cost of capital and that the banks would look more closely at the risk/reward premium was the explanation.

61 Hughes, Croft, 2007/11

A view shared by various banks was that the maturity of debt would shorten and adapt more to American standards. The obvious reason for this is that it would be easier for the banks to sell the debt on the American market if they wished. A larger secondary market for debt would obviously facilitate the situation for the banks when they prefer to change their exposure in certain deals.

Many interviewees thought that it was hard to make predictions for the future since it is hard to tell if we have not seen the worst effects of the American subprime crisis and the credit crunch that followed. If the economy is going into a real recession the bad deals that were made when market was most hysterical will be affected first. The companies will default on their debt and the turmoil that would be seen in that scenario would take a long time to sort out. A probable effect of the scenario would be that even fewer deals would be made since the banks would be very concerned about the losses they would take from the deals they already had made.

4.3 Loan syndication

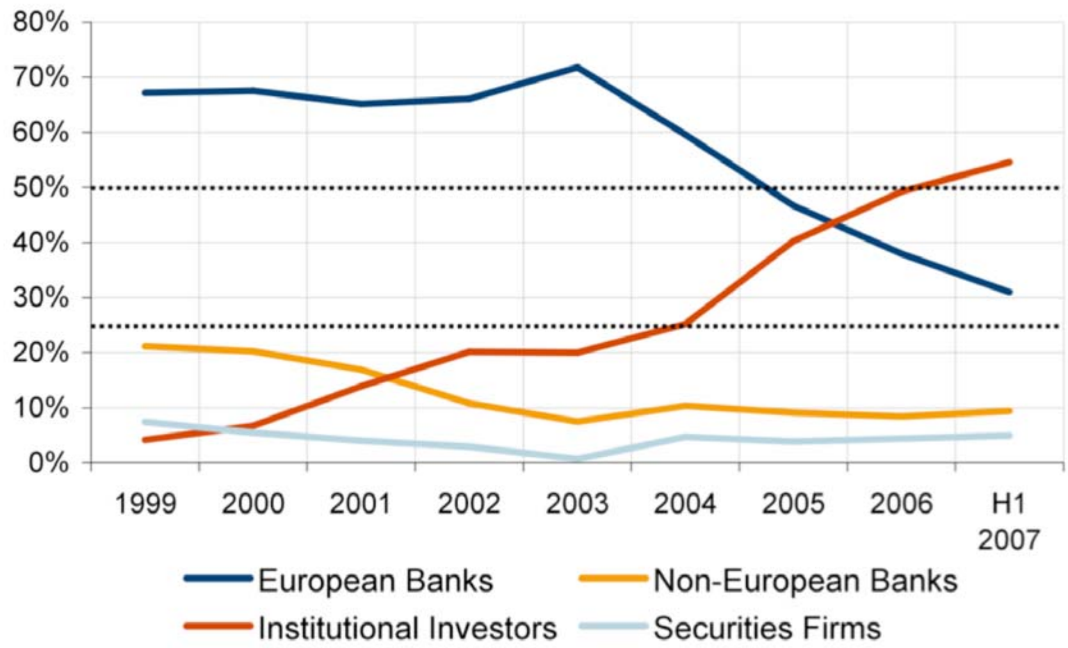
The development on the primary and secondary market for syndicated loans is here dealt with extensively and as a separate subject because of the crucial influence it has come to have on the LBO market. The entrance of new players on the market and what this meant for the size and pricing of LBOs are described. The banks' different business model regarding loan syndication is described, and finally, the bankers' views on the future liquidity on the primary and secondary debt market are summarized.

As explained by the interviewees, the process of loan syndication involves several different lenders in a loan deal with the intention to get a lower credit exposure by spreading the risk between the partners. Investors syndicate their loans when they do not want to keep the whole loan by themselves.

4.3.1 Market development

The LBO market had been increasing for a long time until the turn in august 2007 and there had been more and more new investors entering the market. As shown in graph 4.2, institutional investors rapidly increased their market share of the European primary debt market. European banks lost their market share to institutional investors while Non-European banks and institutional investors almost kept the same market share as before. In the beginning of 2007, the institutional investors stood for over 50% of the debt on the European primary debt market and the Nordic market showed a similar trend. With a growing LBO market, the syndication of loans also became more frequent. According to the banks, this market for syndicated loans was booming until the middle of 2007. Institutional investors such as hedge funds and CDO funds were attracted by great investment possibilities and the banks had no problem to sell off their loans. These investors could buy debt with just one day of consideration

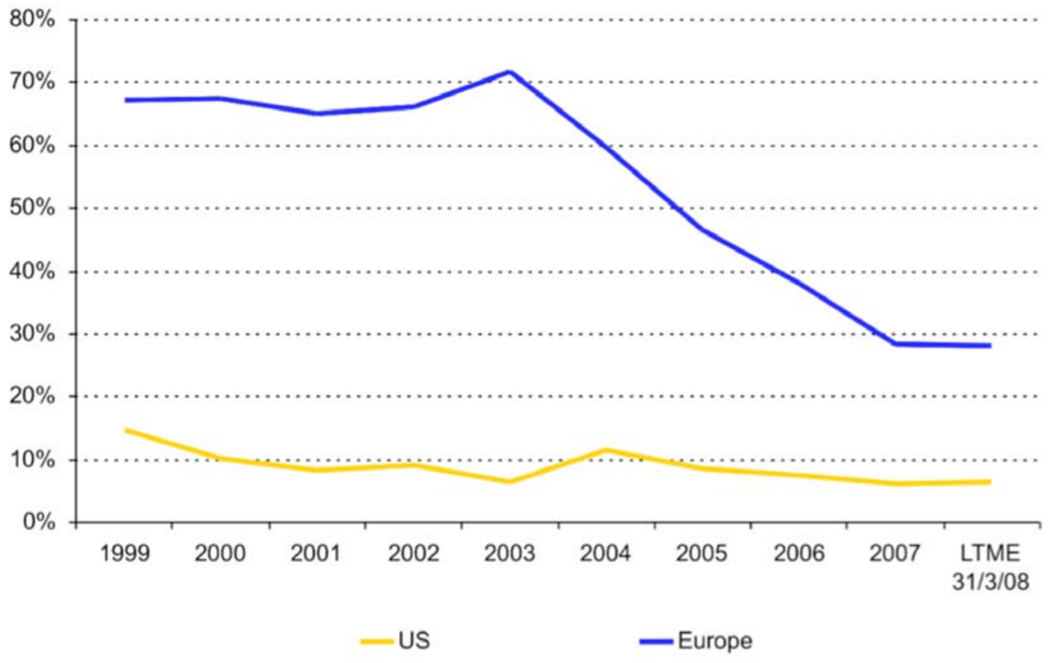
Debt holders' share of the primary market



Graph 4.2 **Source: Standard & Poor's LCD**

There was an intensively growing trading on the secondary market where the debt was traded over its par value. This development was so extreme that an interviewee compared it with people throwing money at each other. Banks were willing to take greater risks and give larger loans by themselves because they could sell them quickly on the secondary market or syndicate them on the primary market. The interviewed bankers mentioned that international banks and institutions were willing to take greater risks and close big deals to larger extent than Nordic banks, which chose to be a bit more careful with their lending. Nordic banks often focused on placing debt on their balance sheet with a long-term strategy.

European banks' share of the primary market



Graph 4.3 **Source: Standard and Poor's LCD**

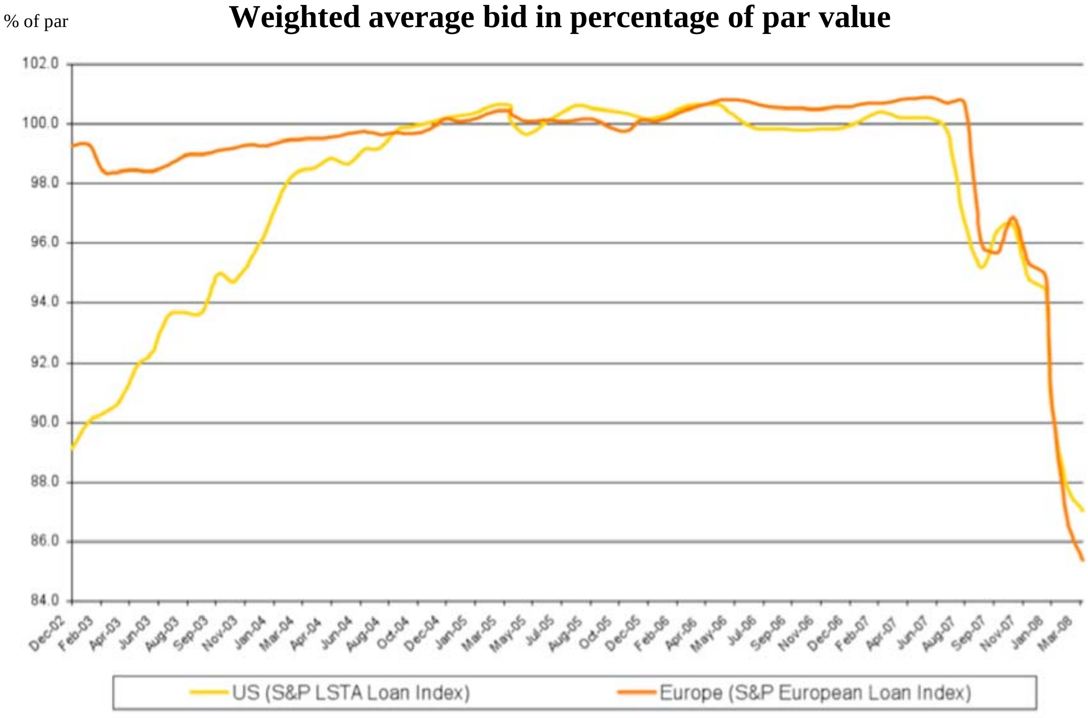
As graph 4.3 shows, the European banks' share of the primary market went down after 2003, caused by the entering of new investors on the market. The market share of US banks almost stayed the same during the last decade.

One of the interviewees describes the intense development on the debt market as a creator of enormous liquidity effects, which drove up the leverage until the credit crunch. The growth of the syndication as well as the LBO market took an abrupt end after the credit crunch, which started in the United States. In August 2007, the growth of the market had changed to a downturn and the debt on the secondary market began trading below its par value. The institutional demand disappeared and the market turned illiquid. Many banks now suffer from a "credit overhang", which means that large syndicated loans are left on the balance sheet of banks, which are unwilling to sell them to their currently low value. The credit overhang's effect on the liquidity is one of the reasons for the lower activity in Europe.

The bankers explained that the lower activity on the secondary debt market also has to do with a valuation gap between the buyers and sellers. The buyers demand lower prices as the sellers stick to their old valuation levels. The loans that were given on the top of the boom need to be restructured and get out on the market again. Some banks sell their backlog loans cheap, while other investors keep their big loans in hope that the market will stabilize so that they can sell the loan for a higher price. At the moment nobody wants to pay the high prices offered before the crunch.

Graph 4.4 shows the decrease of the average bid price in percentage of par value for loans on both the American and European secondary market. As shown in the graph, the bid price for loans decreased dramatically after August 2007. This development has continued until March 2008, with only some small exceptions.

Weighted average bid in percentage of par value



Graph 4.4 **Source: Standard and Poor's LCD**

The illiquidity on the market has caused a major increase in banks' syndication risk, which is why club deals have become more important. Club deals occur when investors go together and sign for a loan as a group. They all act as underwriters and do not trade the loan between each other. Club deals are more common in the Nordic region than in the rest of Europe, which is why the Nordic market is healthier than many others.

The whole downturn of the LBO and loan market has hit the U.S. and European market harder than the Nordic market. The more careful Nordic banks were lucky to keep out of too risky deals and are still liquid. Most interviewees think that this is the reason why the Nordic market is not as instable as the other markets.

4.3.2 Policy on loan syndication

During the interviews the banks showed differences in policies regarding loan syndication. At the same time it was possible to see similarities between Nordic banks as well as between international banks.

Nordic banks seem to be calmer and more careful on the LBO market; they are often seen as conservative banks that try to build a good relation to its customers. They do this in order to earn money on cash management and future investment needs. This is why, in general, all banks prefer to act as leader for a loan instead of joining a syndication as a participant, according to interviews. They all participate in club deals, which became more common after the credit crunch in July 2007. In order to negotiate efficiently, a club usually consists of no more than between five and six members, which sometimes forces the banks to take on bigger loans than they want to. Because the Nordic banks often have similar behavior on the LBO market they also prefer to do business with each other, mentioned in interviews.

Nordic banks tend to hold large parts, and in some cases, the whole loan while the international banks often only keep between 10% and 20% of the loan. It is difficult to see a typical size of hold position; it can vary from 20 million euro to 1 billion euro. Nordic banks are neither in the securitization business, that is sell securities based on a pool of assets, in this case leveraged debt. However, one of the Nordic banks said that it has begun moving towards a business model similar to those of the international banks, focused on syndication as a way of earning money.

4.3.3 Future development as perceived by the industry

There are different opinions on the development for the next 12-24 months. One bank thinks that it will stay as it is now for a while and another thinks the market will become more liquid again. For another bank, the present situation is a catastrophe whilst it is manageable for another one. The Nordic banks seem to be more comfortable with the situation as they are more liquid and do not have the pressure to sell so many loans as other investors. The pricing of leveraged debt on the secondary market has come to show correlation with high yield bonds and one interviewee does not see that ever disappearing. Another interviewee points out that the market will start to move again once the credit overhang problem resolves, and thus increase liquidity in the primary loan market. It is possible that the hedge funds, which brought with them a lot of capital, need to come back before that happens.

The LCD European Leveraged Loan Review shows a trend of returning liquidity for the first quarter of 2008, but it is described as “baby steps” forward.

PE funds are mentioned as new buyers of debt. On a European level, PE funds are buying back their own debts and those of others in industries where they have good knowledge, to a discount. This trend shows signs of coming to the Nordic market, and would result in some liquidity effects.

5 Executive summary – analysis and conclusion

This chapter aims to describe the result of this study. It summarizes and analyzes the empirical findings and portrays them as direct answers to the questions formulated in the problem discussion. The change in debt multiples, equity levels, pricing and structure, interviewees' opinions on the influencing factors as well as their views on the future are summarized objectively. When looking closer at the major influences on banks' lending to LBOs, we analyze and draw conclusions from our study of banks' LBO business models, their credit analysis and use of due diligence, and the secondary market for leveraged loans. Finally, suggestions on further studies that this thesis has engendered are presented and discussed.

5.1 Development of debt multiples and equity

What is the development in the size of the loans, in terms of multiples of EBITDA, to leveraged buyouts?

The total debt-to-EBITDA was 5.9x in 2005, a by bankers referred to as a reasonable level. It then rose steadily to an average of 7x in the first half of 2007. The senior debt-to-EBITDA multiple maintained its distance to the total debt, the mezzanine was in terms of multiples roughly the same. During this period, many LBOs were recapitalized at the more favorable terms in the first half of 2007. Since the underwriting bank had no trouble finding participants in a syndication, the deal could often be reversely flexed, which meant that prices went down and leverage (at least in terms of senior debt) went up.

The main reasons for the rise in leverage during this period are, in general, perceived by the interviewed bankers as stable macro environment and increased competition on the market. The stable macro environment with low interest rates and stable global GDP growth boosted the confidence when valuating companies as well as banks' credit risk assessment. The new competition came both from new banks but particularly by institutional investors. These new participants drove up the demand on both the primary and secondary market for leveraged debt, which in turn drove up the debt multiples. The PE houses had large capital bases during this period and were able to play out banks against each other.

Since the credit crunch, the multiples have dropped 1-2x and are now at what many banks describe as the 2005 year's level. Bankers have mentioned deals being made between 2.8x and 5.2x, but the general rule of thumb is said to be 4x senior debt and 6x total debt.

The three major reasons for the drop in leverage derive from the subprime crisis, which took liquidity out of the market, caused general macro economic concerns, and lead to an increase in banks' funding costs. The illiquidity on the secondary market for leveraged debt makes it harder for banks to raise capital on the primary market. Banks avoid taking syndication risk and must stay within certain debt level boundaries if they wish to further distribute the debt.

The insecure macro environment has turned certain industries inappropriate for LBOs and in others leverage has gone down. The higher funding cost for banks is being passed on to the costumers, which makes the debt more expensive and thus lowers the leverage.

What is the development in the levels of equity, measured in percent of the purchase price?

Banks claim to have a minimum demand of equity on 30-40%. During the boom on the LBO market in the first half of 2007, these demands dropped to around 20-25%, but are today back on around 40%. Historically, smaller deals have had higher equity contribution, but as one banker points out, today it is harder to finance big deals whereby equity contribution is larger in big deals to fill up the gap between total debt and the purchase price. The normal equity contribution is slightly higher than what is said in the theory (20-30%).

5.2 Development of pricing of debt and debt structure

What is the development in the pricing of debt and use of different instruments?

As demonstrated in the chapter Empirical findings, the LBO market has been very turbulent lately. The debt structure for LBOs has changed a lot, from consisting of a single loan from a single bank to more complicated structures with various debt instruments. According to the interviewed banks many of the deals made in the first half of 2007 had a debt structure with only B and C tranches of the senior loan and with second lien, PIK notes and sometimes mezzanine as subordinate debt. At the time, institutions such as hedge funds had a great influence on the market, their demand shaped the supply from the banks. The LBO market then took a drastic turn, much due to the U.S. subprime crisis, and the institutions almost disappeared from the market. Since the institutions were one of the forces that shaped the market and the debt structure, their disappearance resulted in a change of the debt structure. In 2008, the few deals that have been carried out have had a larger part of senior debt, were the amortizing tranche A has returned. The most noticeable change regarding the subordinate debt is that second lien has completely vanished and the mezzanine debt with warrants is returning to the debt structure.

The pricing of debt is dependent on the competition on the market. Consequently, when the competition on the market was higher, the prices were lower. In view of the fact that many of the players have left the LBO market the prices have also gone up. In some deals the prices have been higher than seen the standard prices seen before the market hype. The higher margins certainly benefit the banks but are probably a concern for the PE firms that have a harder time to do a good profit on LBO deals.

As discussed, the debt structure and pricing of debt has changed significantly the recent years. The last change, from debt structures with very low pricing without any amortizations, to sounder debt structure and with a higher pricing, will only benefit the market in the long run.

The new structure and pricing give the banks an opportunity to keep the debt in their balance sheet and at the same time probably make a good profit on the deal and maybe through future affairs with the borrower. Banks with good control over the deals and a more stable market will ultimately also benefit the investors.

5.3 Major influences on lending

What are the major influences on banks' lending, and how have they changed over this period?

5.3.1 Credit analysis and due diligence

Opposed to what is said in the report on Private Equity carried out by ECB last year, few banks in the Nordic region carry out their own due diligence when leading a syndication. It is easy to understand why, since it is both practical and cheap to use the already existing one. However, as most banks are unsatisfied with the financial due diligence – some believe it is just a confirmation of the PE houses opinions -, carrying out their own due diligence would most likely be a significant improvement for banks in assessing the risks of companies. We believe than the unsatisfactorily done due diligence in the first half of 2007, when banks had very little time to evaluate the companies, can easily have led to the miss-pricing of risk on the LBO market before the credit crunch.

The, by banks, acceptable refinancing need of around 1-2x EBITDA at year nine indicates that the banks do not request a full amortization of the loans. Of course, this amount of debt is likely to be equal to the optimal debt level of the company, but it still indicates banks' focus on the companies' ability to pay interest rather than their ability to repay the full debt. If banks take for granted that the LBO is going to be recapitalized after 2-4 years, we believe that this view can, in the event of financial turmoil, cause problems on the market when companies are to recapitalize high leverage multiples with completely changed market conditions.

The confidence for the sponsor as well as the target company is an important factor in credit analysis, which can be linked to the theory suggesting that well known companies are perceived as less risky. If the bank has gained confidence for the company's ability to generate cash flows in the future and relies on the PE fund's predictions about the targeted company, they will also be prepared to lend more money for the LBO. However, this is an area where banks willingness to maintain good relations, especially the Nordic ones, can have an influence on their risk-taking.

5.3.2 Relationship or skimming?

The banks' business models for their LBO activities vary to some extent and it is possible to see a difference between foreign and Nordic banks. However, there are signs of Nordic banks starting to behave similar to foreign banks, which could mean increased sensitivity to international macro developments on the Nordic LBO market.

In the report on Private Equity made by ECB in 2007, the banks are categorized as “portfolio” or “asset turnover” regarding to their business model of LBO transactions. In the Nordic region, these distinctions are not adequate, since all banks interviewed hold at least some part of the loan, normally 10-20%. A better classification would be “relationship” or “portfolio”, as Nordic banks in general focus on establishing long-term relationships with their clients, sometimes keeping the whole loan on their own balance sheet. This business model focuses on earning interest on their loans and, on top of that, providing services such as cash management. If this business model is more profitable in the long run than the “asset turnover”, is yet to see. The fact that one of the Nordic banks has shifted towards becoming a major underwriter could in fact be a clear sign of a shift in the Nordic banks’ business models.

It is clear that the Nordic banks’ business model is one of the reasons of the historically higher debt-to-EBITDA multiples in the Nordic region, partly by a more careful selection by Nordic banks, and partly by the tendency of higher debt multiples when the whole loan remains on the bank’s balance sheet. These are also, together with the Nordic banks’ resistance of going into the securitization business, the main reasons of why the Nordic LBO market now is rather healthy and deals are being made. However, as at least one of the Nordic banks has shifted towards a more debt market-focused business model, we have reasons to believe that the future will see debt multiples in the Nordic region aligning with those of the rest of Europe. As one banker pointed out that the distribution is here to stay, more Nordic banks might be attracted by the business model of earning fees and skimming loans.

5.3.3 Credit fundamentals versus market forces

A part of the purpose of this study is to understand the major driving forces behind the changes in lending and pricing of debt in LBO transactions. During the interviews with the banks they declared the credit fundamentals, the theory behind calculating and judging the risk on deals like an LBO, as the important factor when determining the price, structure and size of the loan. The pricing is always set by what are the market standards for the moment. However, regarding debt multiples, only one bank mentioned that competition among banks might have an impact. There might be a reluctance to admit what we have come to notice during our interviews: the heavy impact of market forces, the two major ones being the competition among banks and the market’s demand of debt.

When the LBO market was at its peak during the first half of 2007, the banks must have known that they were doing bad deals according to the credit fundamentals, but fear of losing market shares and the attractiveness of making fast money were possible forces driving the banks to do these deals. Some genuine mistakes are also likely to have been made as banks were given shorter time and less material to analyze the deals.

As it turns out, the ones that kept a low profile during the most hysterical market are also the ones that will have most capital and will thereby be able to do good deals now when the market is back to more sound levels. As one banker stated; it is back to the fundamentals, which is also the direction the market seems to be going in terms of the pricing, structure and size of the loans to LBOs. The banks, once again, actually have time to do extensive research when deciding on a deal. They also put a proper repayment schedule into the deals, which was not the case in many deals in the first half of 2007.

5.3.4 The macro environment

The macro environment is of major influence when the credit analysis of the target company is conducted. A target company's suitability for an LBO decreases with its sensitivity to an economic downturn. If an economic downturn or recession is impending, industries with high sensitivity to economic downturns quickly become unattractive or are faced with lower multiples. On the other hand, a stable macro environment fuels confidence in the future, as was the case 2005-2007.

5.3.4 Liquidity on primary and secondary debt market

As we have noticed in our study, the LBO market is extremely influenced by the liquidity on the primary and secondary debt market for leveraged loans. As the theory explained and our empirical study shows, the secondary market makes securities in the primary market more desirable and easily sold as well as it indicates their price.

The syndication has become such a major part of the banks' LBO business that the international banks are dependant on a liquid market in order to make deals at all. This is portrayed by the huge drop in deals made since the credit crunch. Fortunately, Nordic banks are not as affected by the liquidity on the secondary market as the international banks, and for this reason they have been able to keep the primary market running, with the help of club deals. However, for large deals in the Nordic region, the illiquid markets put upper limits on leverage, and forces sponsor to increase their equity contribution to the deals.

We believe that banks oversaw the miss-pricing of risk possibly on purpose, since they probably did not consider a credit crunch as the major impending risk. Instead they maybe anticipated a higher default level, which was still acceptable considering the money the banks made on the deals. Maybe they learned a lesson this time, but as seen before, a feature of the banking industry is its remarkable ability to forget how quickly the market can turn, and it is our belief that this time was not the last.

5.4 Bankers' views on the future LBO debt market

How is the future debt market for leveraged buyouts perceived by professionals within the industry?

5.4.1 Macro developments

The fact that the interviewees had a lot of different opinions about what will happen on the market in the next 12-24 months shows that there is a big uncertainty about the development of the macro environment and its effects on the LBO market. Some industries are more affected than others. For instance, the retail and construction industries seem to be very instable and risky, therefore LBOs in those industries are quite rare as banks more or less completely stay away from those industries. It is likely that the LBO business in the Nordic region, as well as the rest of Europe, will turn to certain key industries that show very low sensitivity to economic downturn, such as the medical industry. A stabilization of the macro environment is crucial for investor confidence, and thus, the way back to liquidity.

5.4.2 Liquidity on the primary and secondary market

Bringing the interviewees' different opinions together, it is possible to see three main factors that are perceived as keys to returning liquidity on the primary and secondary market.

1. The fact that the banks continue to do business in the form of club deals is a good sign. The banks do not close as many deals as they used to do during the peak of the market but the numbers show that the banks are not completely avoiding LBO deals. These deals at least keep some of the liquidity on the primary market.

2. Many investors are committed to very large loans, which they can not afford to hold in the long run. This has created some forced selling on the secondary debt market and has momentarily brought back some liquidity to the market.

3. Some of the interviewed banks mentioned that there have been signs of movement on the European secondary market of leveraged debt and some liquidity has returned during the last month.

Bringing these three factors together could be the solution to bring back the liquidity to the primary as well as the secondary market. Even if these factors cause small differences each time, the fact that there is movement on the market will give confidence to the market and will attract investors step-by-step. There will be more investments made and the cash will start to flow on the market again.

5.4.3 Debt multiples and pricing

The credit analysis is back to the credit fundamentals and banks are more concerned with risk versus reward. The general view is that the lending to LBO transactions, in terms of multiples of EBITDA, will keep its prevailing levels. This is because of the cautious approach by banks, caused by general macro concerns and trouble raising capital for big or risky deals.

The PE houses are said to have a big capital base and the present situation gives opportunities for industrial companies with capital to buy companies whose values have decreased. There are thus no concerns of a further decrease in activity on the Nordic LBO market.

The thoughts on the future pricing of senior debt differ significantly among banks. Most bankers expected the prices to stay the same for the overlookable future, but there were also ideas on a decrease in prices, due to earlier overreaction in pricing and a theory of continuing increase in prices as banks funding costs increases and banks look more closely at risk/reward.

The maturity of debt might go down, as that would make it easier for banks to sell it on the U.S. debt market. Several banks shared this view.

5.5 Suggestions for further studies

This thesis has focused on the amount, pricing, and structure of the debt in LBO transactions over the period 2005-2008 in the Nordic market. What also have changed over this period are the terms and conditions that come with the debt, which are the restrictive covenants. During the boom in the first half of 2007, the PE houses played out banks against each other and were able to loosen the covenants. A study on these so called covenants light would be interesting since it would extend our discussion on credit fundamentals versus market forces.

In this thesis, we have come to see that the banks lending, in terms of debt-to-EBITDA multiples, are highly affected by market forces – more so than the banks are willing to admit. During the period 2005-2008, many companies were recapitalized to a higher debt multiple after between one and two years. A study could measure the influence the market forces had on banks lending during this period by looking at these companies' pro forma cash flow statements at the time of the initial transaction and at the time of the recapitalization. It is our belief that it would be possible, after having filtered out the companies' changed market and costs conditions, to observe a change in leverage solely due to market forces such as high competition and demand of debt.

In the event of a recession, many companies that were leveraged to very favorable terms during the first half of 2007 will face the risk of breaching their covenants. If so, it would be interesting to study this development, its consequences, and how the market would deal with this problem. An interesting study on the same topic would also be to compare the pro forma statements from these deals made one year ago with their pro forma statements of today. This to try to measure the change in credit risk and identify the industries in which it has changed the most.

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Appendix

Interview guide

Apart from the discussion that follows the questions below, we would appreciate to discuss a couple of anonymous examples of LBOs that your bank has financed in the Nordic market between 2005 and 2008. With these examples, we aim to concretize your discussion and at the same time they would be the basic data for a small quantitative study.

These examples and the result from the interviews will be presented together with other interviews. This means that it will not be possible to connect a specific transaction to a specific bank.

The focus of our interview is to obtain a clear picture of the size (debt-to-EBITDA multiple), the price development and the variation of the mix of debt instruments used in an LBO. As far as the time admits, we would also like to discuss questions about syndicated loans and credit analysis.

Multiples of EBITDA and debt instruments

- Which are the most important factors you use when you evaluate a loan decision and the size of the loan at an LBO transaction? What decides the size of senior debt in relationship to, for instance mezzanine finance?
- Do you have a minimum demand of equity and has it changed during 2005-2008?
- According to the LBO deals your bank has financed, how have the multiples and the choice of debt instruments changed during 2005-2008?
- What are the main reasons to these changes?

Senior debt

- How have different factors such as underlying STIBOR/LIBOR development, competition and macro development influenced the pricing of senior debt during 2005-2008?
- What factors decide the pricing and the maturity of different tranches?
- How have these changed?

Mezzanine

- How have different factors such as; underlying STIBOR/LIBOR development, competition, macro development, and other factors influenced the pricing of mezzanine debt during 2005-2008?
- How has the mix in debt structure changed in the period?
- What factors decide the pricing and the maturity?
- How have these changed?

Future development

- What do you think about the development of debt-to-EBITDA multiples, the pricing of senior debt etc., and choice of debt instruments for the coming 12-24 months?

Syndicated loans

- How would you describe the development on the market for syndicated loans between 2005 and 2008?
- Could you describe your policy on loan syndication either as lead or syndicate member?
- To what extent do you use syndicated loans to spread risks?
- How big part do LBO transactions play in your risk exposure?
- To what extent do you do deals on the secondary market for syndicated loans?
- How has the development on the secondary market for syndicated loans affected your way to deal with leveraged buyouts?
- What do you think about the development on the secondary market for syndicated loans for the coming 12-24 months?

Due diligence and credit analysis

Due diligence

- Do you perform your own due diligence as a complement to the financial, legal, and commercial due diligence which in general is executed?
- In your opinion, which fields of financial due diligence has improved the most lately and which do you think still can improve?
- How have you changed your approach to work with due diligence during 2005-2008?

Credit analysis

- How has the credit analysis changed during 2005-2008?
- What macro trends are seen as the most critical and how do they affect you way to work with credit analysis?