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BAKALÁŘSKÁ PRÁCE

**Asset Securitization: Prospects of a Market Development
in the Czech Republic**

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Prohlášení

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ABSTRACT

The thesis seeks to challenge the popularly held belief that asset securitization is not a viable financing alternative in small developing economies like the Czech Republic. It aims to address all the key aspects of the topic, including conditions for further market development and any significant caveats. In the first part of the paper, readers get familiarized with basic features and mechanisms of asset securitization as it is practiced in the developed financial markets of countries like the United Kingdom or Germany. The second part presents a selective insight into the room for manoeuvre for small players, introducing prospective niche segments like pooling conduits, SME securitizations, etc. A country-specific analysis of factor endowments, demand conditions, industry structure, and business environment issues is presented in the third, empirically oriented part. The analysis is supplemented with market overview, identifying potential asset pools in trade receivables, as well as with two illustrative case studies.

ABSTRAKT

Práce si klade za cíl narušit všeobecně rozšířené vnímání sekuritizace jako nástroje financování zcela nevhodného pro malé rozvíjející se ekonomiky, jako je Česká republika. Snaží se postihnout všechny klíčové aspekty tématu, zejména podmínky dalšího rozvoje místního trhu, jakož i upozornit na rizika s ním spojená. První část čtenáře seznamuje se základními mechanismy sekuritizace, jak ji známe z rozvinutých finančních trhů. Ve druhé části jsou dílčím způsobem představeny některé oblasti sekuritizace vhodné zejména pro menší hráče (jako např. společné emitující subjekty, sekuritizace soukromého kapitálu, apod.). Třetí, empirická část je pak věnována rozboru určujících faktorů, struktury odvětví a tržního prostředí v České republice. Analýza je doplněna ilustrativním přehledem sekuritizovatelných aktiv v oblasti pohledávek z obchodních vztahů a dvěma modelovými transakcemi.

Key words: asset securitization, credit derivatives, asset-backed securities, asset-backed commercial papers, pooling conduits

JEL Classification: G10, G20, G32, N20

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INTRODUCTION

The recent development of the world's financial markets might be characterized not only by an unprecedented growth in volumes of the transactions but by an incessant introduction of new and ever more complex terms and instruments as well. These innovative structures – represented primarily by the derivatives, financial instruments, the prices of which are directly dependent upon the value of an underlying asset or other variable – challenge the capacities not only of the market participants who use these instruments to offset risk or enhance profits, but also of those who set the rules and regulate the markets. The readiness to rise to these challenges seems to be crucial for both parties, as the world markets get more and more global and competitive. A transparent and stable environment is of common interest.

Many respected authors representing both parties (i.e., the market makers, and the respective regulatory bodies) are rather skeptical about the genuine motives for an excessive use of such innovations like derivatives or asset securitization. Let us mention, just for the purpose of this introduction, two of them, each representing his respective professional and institutional background.

Das overtly speaks about potential moral hazard issues connected with credit derivatives. As the derivative and structured finance markets facilitate transfer of risk from major banks to various institutions including smaller regional banks, insurance companies, and other fixed-income investors, there is a major concern that the entities assuming this risk are not adequately equipped to assess it (Das, 2005, 761). Jílek, representing Czech regulatory bodies, is even more conservative in this respect. As far as we know, he is the only native author to cover the theme of securitization in detail so far. Jílek believes that the moving forces behind the current expansion of use of derivatives are mainly maximization of profit of the financial institutions to the exclusion of their clients, circumvention of the regulations, tax evasion, and the so-called “tunneling” (Jílek 2004, 15).

As for the securitization itself, the main misdeed seems to be bypassing of the credit engagement regulations by selling the banks' credit commitments off-balance. However, in his open criticism of securitization Jílek goes even further. He finds the very principle of securitization in contradiction with classical economical theory. “Why should the sum of pieces be major to the whole?” says he (Jílek, 2005). We believe that the answer is to be found not only in the classical theories of financial management, but also in the institutional

analysis of the theme. We will present major features of the discussion on economic sense of securitization in a dedicated chapter.

A significant portion of the criticism directed at asset securitization in the Czech Republic may be certainly explained by the abuse of sound securitization principles that was witnessed for example in the IPB restructuring announced in 1998¹ and in other similar attempts to lead out low-quality assets from the balance sheets of the respective banks. Such a criticism is more than legitimate. The experience should be a warning that rapidly developing financial markets are prone to become playgrounds for financial shenanigans of that kind. Due to the mentioned machinations, securitization still remains in the mind of the Czech public a way of getting bad loans off the balance sheet. However, there is a point we would like to emphasize: the witnessed abuses were not based on the securitization principle as such but on the general unawareness of the professional community, on the lack of regulation, and on the political support to suchlike highly questionable activities. In standard securitizations, distressed assets are but extremely rarely used as underlying collateral, and thus just a mention of “bad loans” or “credit portfolio restructuring” may be interpreted as an unmistakable sign of something spurious happening around. For detailed discussion on the Czech quasi-securitizations, see for example Teplý (2002). For a closer look at causes and consequences of concealing bad off-balance debt, see Lim, Mann, and Mihov (2004).

In our opinion, securitization is an excellent example of a business structure demonstrating almost all of the classical phenomena discussed by the institutional economists, such as information asymmetries, moral hazard, bounded rationality, adverse selection, asset specificity, incomplete contracting, boundaries of the firm, etc. These are all of a major concern in the securitization process and in the development of individual securitization markets.

In line with what was just said, we shall examine the mechanisms of classical asset securitization, as well as the sell-side and buy-side incentives to participate in similar structured transactions, taking into account existing literature and other relevant information sources. The short overview should provide us with a sound basis for further discussion on the prerequisites that condition successful establishment of a securitization market in the Czech Republic.

¹ See for example the article “Skupina IPB se změní v holding a projde zásadní restrukturalizací” based on an IPB press release and published in *Hospodářské noviny* on December 29, 1998.

We believe that the domestic development will by often and large mimic the earlier achievements of the developed markets. For that reason, we feel qualified to imply certain conclusions regarding the prospective market. Developing a detailed analytical framework later in the paper will help us to assess the potential of a securitization market development in the Czech Republic, its strengths, and its weaknesses. The conclusions, based mainly on the institutional analysis of the topic, will be supported by a quantitative insight into one of the market segments drawing most markedly on securitization solutions – securitization of trade receivables. Should we confirm our main hypothesis that securitization is, under some well defined conditions, a viable alternative in the Czech Republic, we shall supplement our results with brief illustrative case studies.

PART ONE: WHAT IS SECURITIZATION?

A. DEFINITIONS AND KEY PLAYERS

Definitions

As there already exists abundant literature on the topic, we will try to restrict our description of the securitization mechanism to an indispensable minimum. For this purpose, let us start with the definitions and descriptions of the key players involved.

Almost every author dealing with securitization and related issues presents his own definition, reflecting more or less the aspects that he or she finds significant or distinguishing securitization transactions from other types of financial instruments. Generally speaking, securitization is a method of transferring credit risk from the originator to investors through capital market transactions. Credit liabilities are usually transferred via a special entity called SPV (Special Purpose Vehicle) by cash sale of debt instruments called ABS (asset-backed securities), whose cash flows and performance are wholly dependent on the performance of the underlying portfolio of assets. However, financial obligations of third parties are not the only assets that can be securitized. The ABS can be backed by any cash-flow generating asset.

The official conception of securitization is based on the concept of a derecognized asset given by IAS 39². According to the standard, a financial asset is derecognized when, and only when 1) the contractual rights to the cash flows from the asset expire; or 2) the entity transfers substantially all the risks and rewards of ownership of the asset; or 3) the entity transfers the asset, while retaining some of the risks and rewards of ownership, but no longer has control of the asset (i.e., the transferee has the ability to sell the asset). In the latter case, the risks and rewards retained are still recognized as an asset.

In our definition, we will follow a three-step approach to the whole field of structured finance, inspired by Fender and Mitchell (2005). The main feature of many a structured-finance instruments – although not every one – is the pooling of assets. This can be for monitoring and accounting purposes only, as for example reflected in the ČNB Provision mentioned later (ČNB, 2002), as well as for the purpose of subsequent sale of the related proceedings from the underlying portfolio.

² IAS 39 – *Financial Instruments: Recognition and Measurement*.

Second characteristics, already typical for securitization structures, is delinking of the credit risk of the asset pool from that of the originator. This again is neither comprehensive nor exclusive feature of securitization. Another possibility of such a risk transfer among various financial institutions or sectors would be for example the use of an appropriate derivative such as credit default swap. Similarly, in many veritable securitizations the credit risk remains recognized on the originator's balance sheet. Isolation of credit risk is usually motivated by either replicating, transferring, or hedging purposes.

The most specific feature truly distinguishing classical securitizations from other asset-and-liability management operations is the so-called tranching, or dividing the securities issued against the portfolio into separate layers with different characteristics like risk, coupon, prepayment modes, or even currency. All these three features mentioned above are essential for the creation of value, as they are more or less successfully dealing with the already quoted problems of moral hazard or adverse selection. To this three-step framework, we should add a derivative superstructure – many structured deals have various built-in real options like preemptive rights to buy or lease back the underlying asset at fixed conditions, etc. These features may under certain conditions make securitization useful instrument for making the market more transparent, disciplined and fair.

Key Players

The pivotal player in every securitization deal is the agent who originally extended the loans being securitized. This player is usually called originator and in most transactions it would be a commercial bank. The arranger structures the portfolio and negotiates and advises on the transaction terms. It is usually an investment bank or an investment branch of the originator. Under some legislations, there are legal entities defined specially for this purpose, e.g., the so-called SGFTs³ in Spain. The same party usually underwrites the sale of the securities created during the process. Servicer, mostly being one with the originator or arranger, administers the securitized portfolio. Other tasks are carried out by external facilitators like trustees, tax advisors, legal advisors, auditors, traders, and market makers.

The intermediary between the sell-side and the buy-side is usually an SPV – legal owner of the portfolio of assets sold by the originator. It is a specially created company dedicated exclusively to its role in the securitization. SPVs are the issuers of the ABS, which

³ Sociedades Gestoras de Fondos de Titulización, or securitization fund management companies.

are usually listed, on the contrary to the ABCPs, asset-backed commercial papers traded on short-term basis among the originator and the investors. So far, investors buying in the issued debt instruments are represented mainly by institutions like banks, insurance companies, mutual funds, etc.

Crucial role in the structuring process and in the monitoring of the outstanding deals is reserved to the rating agencies, chiefly Moody's, Standard&Poor's, and Fitch. These provide credit ratings for the ABS, determine the size of the credit enhancement needed, guarantee the due diligence, etc. According to some market makers, assignment of a credit rating to the bond assists to maximize the investor base when tapping public debt markets. Ratings provide investors with a level of comfort regarding the integrity of the whole structure. They reflect the quality of the underlying assets, available credit enhancement, origination and underwriting practices of the originators, servicing capabilities of the servicer, and the overall integrity of the transaction's legal and financial structures. The presence of the rating agencies on the market is more and more visible and – according to our opinion – may result in similar questions and challenges like those we have seen with the Big Five recently. Thomas (2000) makes an interesting point on the role of rating agencies, saying that securitization market comes to vigor only in the era of internet because the banks and rating agencies serve mainly as certifiers of value of assets incorporated in distressed companies or companies leveraging strongly on their competitive advantages.

Special Purpose Vehicle

Normally, SPVs are independent legal entities designed in a way to be “bankruptcy-remote,” i.e., so that their performance does not depend on the status of the originator. A traditional SPV does not have any employees or headquarters, it has not any equity, and is usually administered by the trustee in compliance to its status. From definition, SPV cannot incur any losses as these are directly reflected in the diminution of the liabilities towards the respective parties (individual tranche investors, credit enhancers, etc.). The bankruptcy-remoteness is usually assured by a number of measures including restrictions on mergers, consolidation, liquidation, asset sales, etc., or the so-called “non-petition language” covenants, like commitments not to file the SPV into involuntary bankruptcy (Gorton, Souleles, 2005).

There are three main reasons for the originator not to own the SPV. Firstly, the investors want to be sure that the originator does not control it. The SPV structure thus allows for separation of funding and business decision-making. Secondly, the originator usually does

not want to consolidate it. The third reason lies in the fact that recourse of the investors is only limited to the securitized assets or to other assets owned by the SPV, like for example credit enhancement proceedings, reserves, etc.

The transfer of the assets to the SPV should be carried out as a “true sale.” If a true sale is not achieved, the securitized assets might not be removed from the estate of the originator in case of its liquidation. In these circumstances, there is a risk that the transferred assets will be available to the general creditors of the originator. On the other hand, the originator should be prevented from running the risk of moral hazard, concerning the *ex ante* manipulation with quality of the assets sold to SPV, or adverse selection, concerning subsequent – or *ex post* – asset-quality manipulation. To ensure this, the lending agents often may not know about the potential securitization with the originator, establishing a so-called “Chinese Wall.” This can cause significant problems under some legislations including the Czech one, as notifying the underlying creditors of the deal may be required.

In a veritable true-sale operation, there should be no recourse of the investors. Gourton and Souleles (2005) argue that in fact, there is always a moral recourse, since failure to support the securitization may impair future access to the capital markets. However, the originators have incentives to keep such a recourse non-formal, discreet, and rare. In Czech legislations, such kind of implicit agreement providing credit support beyond contractual obligations should be in our view considered as an illicit favoritism towards specific creditors.⁴

In addition to the requirements mentioned above, the SPV is often established under an off-shore legislation, mainly for tax or legal purposes. We should also note that many securitizations use the so-called synthetic structure in which the underlying assets remain on-balance and are just “ring-fenced”. In such transactions, a credit swap or a similar instrument is used to transfer the risk. These structures are however beyond the scope of this paper.

B. STRUCTURE OF THE DEAL

The securitized assets are usually grouped into pools according to well-defined criteria. This allows to clearly assess and quantify their expected cash-flows and risks. In single-class offerings, all investors receive a *pro rata* interest in the incoming revenues from

⁴ Such behavior might be considered a criminal act under Czech law, as defined in §256a of the 104/1961 Code.

the asset pool. However, in most transactions the risk is separated into multiple layers with their own risk characteristics. In such multi-class offerings, two or more classes of securities are granted different claims, each with its own pay-out and risk characteristics.

The cash flows are distributed periodically depending on the arranged terms. The lowest-risk (usually called “senior”) tranche is serviced first, the other tranches are serviced sequentially until the cash flows are exhausted. This is called the “Waterfall Principle,” as profits seem to move down the securitization structure. In fact, it is the other way round – it is the losses that move up. The risk character of the tranche is reflected in the nominal characteristics of the note. The greater the risk, the higher the interest paid. In some transactions, the ABS are “stripped,” i.e., the interest payments (IO securities) are traded separately from the principal (PO securities) to enhance the investor base through more sophisticated diversification.

For pricing of most of the European floating-rate ABS, spread over one-month or three-month LIBOR or EURIBOR is used.⁵ The price of a tranche primarily depends on the default risk of the underlying portfolio and on the market liquidity risk (for the securities with secondary markets). As Furletti (2002) notes, the overall “convenience” of the structure and its intrinsic “optionality,” i.e., the relative importance of different prepayment schemes, play as well a major role in determining the tightness of the spread.

In general, asset-backed securities are distinguished by a feature called “excess spread.” That means that the gross yield on the underlying assets covers more than the sum of 1) the interests paid to the investors, 2) the servicing fees, and 3) the charge-offs due to potential defaults. If the gross yield on given portfolio is for example 12%, average weighted coupon of the securities 4%, servicing fees 2% and realized charge-offs 3%, the excess spread amounts to 3% of the transaction. Depending on the arrangement, available excess spread can be used to pay credit enhancers, or to cover losses, deposited on a reserve account, or released to the originator. Negative excess spread may be arranged to trigger specific prepayment schemes to secure investors. The excess spread is usually relatively stable and can serve as a proxy to the performance of the deal.

⁵ See for example quotations in Thomson, *International Financing Review*, 2005.

Tranching

Recently, various theoretical explanations have been advanced to explain tranching. Basically, these include 1) asymmetric information, 2) market incompleteness, 3) transaction costs, and 4) price discrimination. According to Firla-Cuchra and Jenkinson (2005) who carried out the first systematic testing of such theories using a database of over 5,000 separate tranches in European securitizations raising to a total of \$1 trillion, support can be found for explanations based on asymmetric information and market segmentation theories. Apart from other things, the authors have demonstrated that for the issues with predicted higher optimal number of tranches, the uniquely-rated tranches are associated with higher prices for the issue as a whole.

Tranching is important notably for obtaining better ratings for more senior notes. It may enable the originating entity to issue securities rated higher than the entity itself and to obtain a rating outmatching the quality of the underlying asset pool. In rather rare cases, tranching may even enable the issue to “pierce” the sovereign ceiling imposed on local securities as a whole by rating agencies. As what regards the asymmetric information problems, tranching plays a role similar to that of the debt/equity distinction described by standard agency theories. As a consequence, analogous conflict-of-interest issues may arise for the managers: should they preferentially defend the interests of tranche-holders situated lower or higher in the capital structure? As originators tend to keep the equity tranches on their books, they might be tempted to favor them in their decisions. For the typical number of tranches in European securitizations, see the following table.

Table 1 – Number of tranches in European securitizations

Number of tranches	1	2	3	4	5	6	7+
Issues	24.6%	22.6%	18.6%	12.3%	9.0%	4.9%	8.1%

Source: Firla-Cuchra, Jenkinson, 2005.

The data are based on a study of 1605 individual issues presented by Firla-Cuchra and Jenkinson (2005, 5). As might be seen, more than 90% of all issues have less than 7 separate tranches with majority having 1 to 3 tranches. It is also notable that according to the study, approximately three out of four issues have at least one AAA-rated tranche with the average size of the top-rated tranche of 81% of the issue. The number of issues also varies with the size of the transaction: the bigger the total amount of underlying assets, the higher the potential differentiation of risk profiles structured.

Table 2 – Classification of deals by volume and level of subordination

Tranches	<USD100m	USD100-500m	USD500-1000m	>USD1000m
1	46%	25%	21%	13%
2	22%	27%	21%	9%
3	18%	21%	18%	13%
4+	14%	27%	40%	65%

Source: Firla-Cuchra, Jenkinson, 2005.

Intuitively, the number of tranches per transaction should grow with investor sophistication. Due to their complexity and substantial information sensitiveness, asset-backed securities attract sophisticated investors in general. However, this phenomenon will be more articulate with further tranching. Therefore, variables as mean and median number of tranches can be used as a good proxy for securitization market development in countries beyond its initial phase.

First Loss Piece

The element of the underlying portfolio carrying the highest risk is the bottom tranche. It is also known as the First Loss Piece (FLP) or “equity” piece, as it resembles in many ways traditional equity. The bottom tranche receives only the residual cash flows and its value is rather volatile. According to the definition of equity instrument given by IAS 32⁶ – “any contract that evidences a residual interest in the assets of an enterprise after deducting all of its liabilities” –, the FLP can be considered as one. Sometimes it can even have the form of preferred stock (Forrester, 2003).

The relative size of the bottom tranche depends on many variables. Intuitively, we can expect it to be rather large under the following conditions:

- small number of individual claims in the pool (called “lumpiness” vs. “granularity”);
- relatively high default frequency;
- weaker robustness of historic data;
- low portfolio standardization;
- low excess spread availability;
- one-off deals of the originator, no recurring transactions.

Due mainly to the asymmetric information, the FLP is for the most part kept by the originator, as for him the bottom tranche is having a very high intrinsic worth that usually

⁶ IAS 32 – *Financial Instruments: Disclosure and Presentation*

exceeds the price offered by potential buyers. In spite of the relative slenderness of the bottom tranche, this usually prevents a veritable transfer of credit risk from happening. However, new regulatory changes (e.g., Basel II) will probably force the banks to make some effort to motivate the investors to buy the equity piece. This can be done through private placements with institutional investors like hedge funds or through secondary markets in C-notes and other under-investment grade issues. Also the “granularity” issues, etc., are now dealt with a relatively high detail thanks to the implementation of the Internal Risk Based Approach (IRBA) required by the Basel directives.

From the observations made heretofore, we may draw the obvious conclusion that securitizations to come on the Czech market are most likely to have 2 to 3 tranches including an AAA “super-senior” tranche and a significantly sized FLP.

Rating and Credit Enhancement

During the structuring of the deal, every tranche is assigned a credit rating ranging typically from AAA to “bankrupt.” The respective rating is accorded by the rating agency on the basis of the expected losses (EL) or probabilities of default (PD). Four major inputs in any rating model are: 1) the default rates of individual debtors, 2) recovery rates, 3) default time correlations, and 4) the particular structure of the deal. Other inputs allow for a stress-test to be taken, for example on the basis of the Monte Carlo method. These can include factors like diversity of the pool, weighted average rating, maturity or spread of the individual claims, over-collateralization ratio, interest coverage ratio, etc. The stress-testing is based on application of progressively negative assumptions like increases in charge-offs, decreases in payment rates, yields, or pool size, etc.

On the basis of stress-testing, rating agencies determine the credit enhancement level required for the rating grade intended. The credit enhancement level is usually expressed as a multiple of expected loss and can be provided in various ways, including the following:

- over-collateralization (the face value of financial assets in the portfolio exceeds the amount of securities issued against them);
- excess spread;
- dedicated reserve accounts (the so-called “cash collateral”);
- guarantees from third parties (e.g., state agencies implicating zero requirements on regulatory capital).

The subordination of the tranches – represented in a simplified way as a struggle between investors and the originator concerning the relative size of the FLP – can be itself considered as the essential credit enhancement to the investors. Credit enhancement provided by the subordination of tranches may be illustrated by the following table.

Table 3 – Credit enhancement structure (example)

Tranches Issued	Volume	Subordination	Reserve Account	Total C/E
Senior	€ 85	€ 15	€ 5	20%
Junior	€ 10	€ 5	€ 0	5%
First Loss Piece	€ 5	€ 0	€ 0	0%

Source: Turek, 2006.

In most transactions, several types of credit enhancement get combined. In general, the techniques of credit enhancement may be distinguished as internal (subordination, cash collateral, excess spread, over-collateralization), external (provided by third parties), hard (existing before the transaction), or soft (emerging in the course of the transaction, like the excess spread).

As we have said, rating of the issue is based on the expected loss. For each grade, there is a range of EL multiples to be covered by the credit enhancement. Should the expected loss be covered only once, the issue will be probably rated single B. The following table displays the ranges and gives a hint what the respective rewards for taking given risk may be (Thomson, vol. 1604, 2005).

Table 4 – Spreads corresponding to credit risk characteristics (example)

Rating Class	EL Multiple	Coupon
AAA	4.5–6	1mL + 18
AA	3.5–4.5	1mL + 30
A	2.5–3.5	1mL + 55
BBB	1.5–2.5	1mL + 100
BB	1.5	1mL + 370
B	1	1mL + 525

Source: International Financing Review, Thomson, 2005.

C. MOTIVES FOR THE USE OF SECURITIZATION

Dozens of motives for the individual players to participate in a securitization deal are mentioned in literature. Some of them are obvious, other ones find themselves supported by different *ad hoc* theories – often contradictory, by the way –, others yet remain in the domain of speculation. However, being described in much detail or not, they stay scattered and dispersed in narrowly focused papers and presentations. Here, we will make effort to present

them in their integrity, weighting their significance by their relative coverage and presence in actual pre-structuring considerations. Contrary to the habitual pattern, we will present the advantages of securitization to investors first, as we regard investors as the *sine quibus non* players in the field.

Advantages for Investors

For investors, the primary virtue of any securitization is that it makes diversification much easier. Asset-backed securities offer better access to a wide range of different asset classes, from student loans to aircraft leases. Thanks to their structured character and inherent divisibility, they also present a possibility to reduce transaction costs for those wishing to buy in a specific proportion of traditional debt and equity. They may be a good opportunity to purchase only specific assets of a particular issuer as well. Due to the bankruptcy-remote character of the SPVs, securitized deals are in general less sensitive to single-event risk associated with originator-specific problems.

In addition to the above, some institutional investors, like mutual funds or pension funds, want to diversify or to buy into geographically or industry-specific areas offering interesting premia (e.g., Russian consumer credit loans) without exposing their clients to the volatility of the equity market. Furthermore, many of these investors find themselves limited to investment-grade securities only, be it by their own prospectuses or by government regulation. Public players like EIB or European Commission also emphasize the role of the ABS as an instrument for better access of international investors to domestic corporate and retail debt (GBRW, 2004).

However, cheaper diversification is not the only strength of securitization. At least in the last decade, the rated ABS have shown more price stability than corporate bonds. And for fixed-income investors, even the junior tranches are a good opportunity to cash in enhanced returns due to the leveraged structure of the deals.

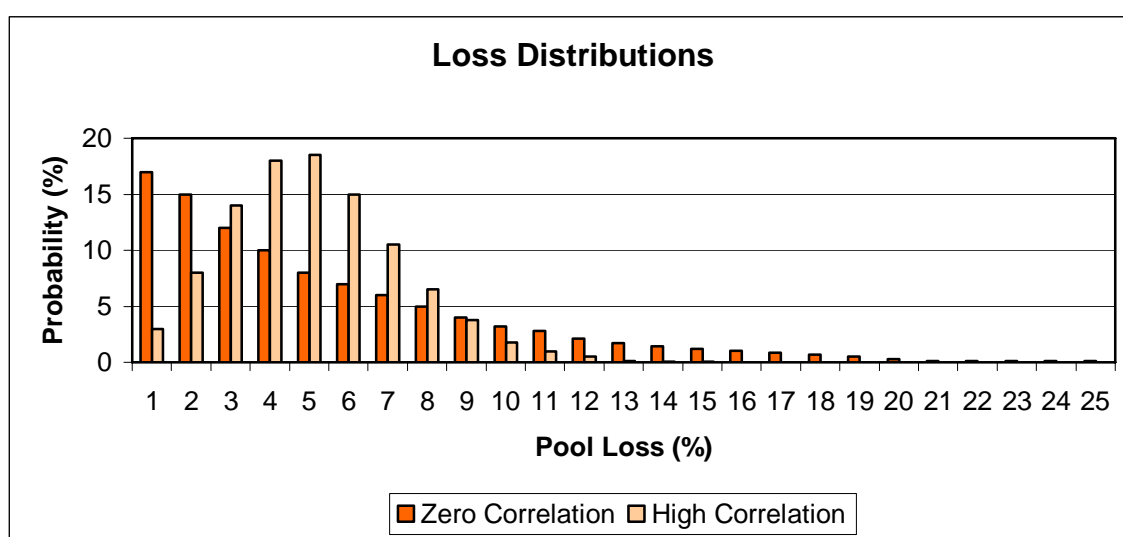
Disadvantages for Investors

As there is obviously no free lunch, the ABS investors also face manifold kinds of risk. Some of these can be assessed analytically, some of them cannot. As an example of the first category, we may cite the default, prepayment, or liquidity risks, or the risk of correlation of certain ABS classes with the bond market. These risks are generally believed to be fully included in the price.

Unfortunately, there are also risks that are harder to assess. With securitized assets, even institutional investors usually depend on the rating and are thus exposed to the “model” or “rating” risk. Fender and Mitchell (2005) also warn of the fact that, even though the volatility of the ABS market might be lower, the rather rare one-off downgrades may cause substantial losses. Due to the leptokurtic character of the return distribution, investors are latently exposed to extreme-values risks that they can hardly grasp and are thus in a similar situation as if they were holders of catastrophe bonds.

Note that in no structured transaction the first moment of the default probability distribution ensures sufficient information to the investors. This applies in general to any security. However, with multi-class deals this issue seems to be of very high concern. Tighter correlation of defaults may imply higher risk for investors in the senior tranches and thus discriminate them in favor of the “equity” investors. This should be reflected by the respective regulations.

Fig. 1 – Loss distributions given the granularity of assets (example)



Source: Turek, 2006.

As may be seen from the chart above, with asset pools demonstrating higher correlation of default probabilities (i.e., less granular issues like private equity transactions), senior tranches bear greater risk *ceteris paribus* and the most junior tranche benefits. There is a clear conflict of interests among the holders of different tranches. Therefore, additional features like loss-triggers or threshold levels for excess spread have to be introduced to protect senior investors in this respect. Last but not least, we have to stress that most asset-backed securities feature various embedded put options and thus expose the investors to substantive prepayment risk.

The incentives for originators to securitize are much more diversified. However, most of them may be classified as either 1) funding, 2) regulatory, 3) risk management, or 4) strategic. We shall treat them successively in separate chapters.

Funding Reasons

Funding-related issues are probably the most important motives to use securitization. Cost saving is effected mainly due to funding diversification. Under tighter economical environment, banks can issue more long-term debt against short-term liabilities without having recourse to costly deposits or inter-bank borrowing. The same holds true for funding of growth. Under unfavorable market conditions, even offensive banks may have difficulties to raise additional equity in the capital markets. Karaoglu (2005) shows that the total amount of loans outstanding from securitizations is significantly positively correlated ($r = 0.44$) with the market-to-book ratio. This would suggest that banks with more growth opportunities use securitization as their funding source. Funding diversification brings about other benefits as well. For example, more and more flexible funding through securitization structures helps banks to better eliminate maturity mismatches.

Sometimes, lower costs of funds from securitization are also ascribed to the bankruptcy-remoteness of the SPV. Gorton and Souleles argue that the SPV structures reduce bankruptcy costs. They say that, “off-balance sheet financing involves transferring assets to SPVs, which reduces the amount of assets that are subject to bankruptcy costs, since SPVs are carefully designed to avoid bankruptcy. Off-balance sheet financing is most advantageous for sponsoring firms that are risky or face large bankruptcy costs. SPVs become sustainable in a repeated SPV game, because firms can implicitly ‘commit’ to subsidize [...] their SPVs when the SPV would otherwise not honor its debt commitments, despite legal and accounting restrictions to the contrary” (Gorton and Souleles, 2005).

There is one more securitization-specific cause of possibly cheaper funds from securitization. Owing to the structured character of the deal (the mentioned “Waterfall Principle”), the topmost tranches – which are usually also the most important as to their relative volume – are very probable to get higher credit rating than the originator. Yet, it should be strongly stressed that the securitization debt is not cheaper just because it is off-balance.⁷ Lim, Mann, and Mihov (2004) have demonstrated that just shifting the debt off-

⁷ Enron for example was able to “create” excessive profits through several hundreds of SPVs only because of the nontransparent and fraudulent character of the operations.

balance – done usually through operational leasing, not by securitization – does not automatically enhance the shareholder value of the firm.

Regulatory Reasons and Risk Management

Second large group of reasons to securitize is associated with the regulatory requirements on the bank capital. With Basel I, large banks with international presence were required to hold capital equal to at least 8% of their risk-weighted assets. If such a bank retains only the FLP that is lower than the regulatory capital to be allocated to the whole underlying portfolio, it can noticeably reduce its capital base. This can enable banks with equity ratio just above 8% to grow organically rather than having to tap on additional external, and usually expensive, sources.

In some case yet, securitization can be used to release even the economic capital of the bank, as the originator is able to reduce the normal level of its own funds set aside against its credit exposure to cover unexpected losses. With Basel II and its IRB approach, the main determinant of the amount of regulatory capital required will be the internal risk-management system of the individual bank, so the gap between regulatory and economic capital is likely to narrow.

Softer form of a “regulatory” use of securitization can be seen with the banks trying to make up their solvability coefficients for credibility or investor-related purposes. However, as we have already noticed, moving debt off-balance does not fool the market for it evaluates the off-balance sheet obligations despite their limited disclosure.

In spite of the general notion that securitization is used mainly to transfer risk to the less risk-averse investors, in most securitization deals such de-leveraging is usually only minor argument. The credit risk is effectively transferred only if tranches exceeding expected losses are sold, and as we have mentioned earlier, this is rarely the case. On the other hand, the amount of loans outstanding from securitizations is said to be significantly correlated with the asset risk (Karaoglu, 2005). But this can, as a matter of fact, reflect more the incentives provoked by regulatory requirements like Basel I to use capital arbitrage without fully reflecting the actual credit risk of the portfolio. This again should change sooner or later with the introduction of the IRB approach supporting efforts of banks to improve their risk management instruments.

Strategic Reasons

Last but not least important category of motives to the use of securitization are strategic reasons. These are in our opinion much overlooked in literature, probably due to their seemingly ephemeral and non-systemic character. We claim that strategic reasons may be the most important element in the general development of the securitization markets, mainly in the initial phases of the process.

Many originators for example can have product-driven motives to securitize based on the specificity of their assets, e.g., large portfolios of residential mortgages or credit card receivables with long track records. Others may try to capitalize on their competitive advantage drawing on economies of scale or on acquired experience as serial issuers. Weak and partly over-banked environment may agree with such a general tendency. With the margins being very low for a long time, banks make effort to adapt their business models shifting from traditional businesses like lending towards more fee-generating activities. As Lumpkin (2002) and others note, securitization is a data-intensive process that entails a great deal of administrative and legal work. Therefore it presents an outstanding opportunity to develop new profitable business lines, establish long-term client relations, and get control of secure niche markets. As transaction costs and time to closing the deal decrease substantially after the first successful deal – as with the IPO arrangements –, originators have strong incentives to enter the market as soon as possible. We assume that strategic considerations of the sell side will be the most important incentive for the development of securitization market in the Czech Republic.

Advantages for Debtors

We will come back to this topic in the more detailed analysis of securitization schemes in SME finance, private equity, and IP. Yet, we have to note that the motivation of the originating debtors to participate in any securitization scheme is usually only indirect and tacit, contained more in the aggregate features of the respective sectors than in any directly expressed preference. However, we will emphasize later on that explicit common interest of all involved parties may be more than suitable, especially in the initial phase of the development of a securitization market.

The principal advantages of securitization consist in cheaper and potentially more long-term financing of consumers and corporations, and in financial and operational risk management. We can say in general that outsourcing funding activities may enable the

companies to focus on their core businesses. Also, more concretely, securitization permits to capitalize on asset-specificity advantages without having to establish and maintain client relations with the investors.

Major Disincentives to Securitization

Obviously, securitization is not a self-evident, all-purpose tool for all types of financing needs and it has many notable disadvantages. These include mainly, but not only, documentation and legal complexity, extensive preparatory due diligence, on-going running costs, and low liquidity of secondary markets, especially for the lower tranches. We have already mentioned the risks of moral hazard and the need of establishing “Chinese Walls” between account officers and securitization agents. Also, modeling risk profiles of the notes is much more difficult than with standard bank portfolios or securities – models have to include structures varying with every transaction.

Discussion on Economic Sense of Securitization

We shall close the short summary of the motives to securitize with a general overview of the topic from a broader perspective. For this purpose, we adopt the generally accepted paradigm of shareholder value, focusing more on the excess returns enhancing wealth of the individual players’ equity-holders than on the strategic or institutional aspects of the deal. As several authors (Jilek, 2005; Thomas, 2000) warn, securitization may have a very differentiated effect in this respect. To summarize the sentiment, we can say that securitization may be expected to bring more excessive returns: 1) in “normal,” calm years of the business cycle; 2) to financial institutions; 3) to bigger originators; and 4) in repetitive transactions.

In general, success in securitization depends on the ability to structure the transaction in such a way that the total costs of converting the asset pool into securities and distributing them to investors is less than the spread between the amount borrowers pay on the loans and the yield that investors require on the securities. However, the Modigliani-Miller capital structure irrelevance theorem (1958) establishes that in frictionless capital markets with no information asymmetries and no agency and contracting costs, firm value should be unaffected by financing choices. This point is one of the grounding points for the economists criticizing securitization as un-economic. Still, motivations for loan transfers may result from information asymmetry in capital markets, agency problems arising from bondholder-shareholder conflicts, and other frictions such as taxes and regulation.

Also, James (1987) documented positive returns to corporate shareholders following the announcement that a firm has obtained loan from a commercial bank. Commercial banks can be seen to have more superior information and their willingness to lend therefore becomes a signal of confidence of a firm's future cash flow. The theory of financial intermediation studies the importance of such institutions in the business world. Moreover, monitoring costs are likely to be lower for securitization debt than for other forms of funding because the cash flows to the creditor are backed by the cash flows from the securitized assets. This makes asset-backed borrowing less prone to payouts or asset substitution by shareholders.

Also, securitization can be used to solve the underinvestment problem. James, cited by Karaoglu (2005), argues that in the highly leveraged banking industry, solving the underinvestment problem is a major motivation for securitization. Funding through securitization can perfectly match the duration of the expected loan receipts, hedging away the interest rate risk. In addition, securitization is also useful for managing credit risk. For example, banks with geographic, industry- or borrower-specific concentrations can diversify concentrations of risks by loan transfers.

Most of the arguments presented above are of institutional nature. However, there exist refined microeconomic models to support and justify securitization as such. Readers interested in such models should consult Garton and Souleles (2005), Skarabot (2001), or Steinert and Torres-Martínez (2004). Our stance on the discussion is double-faced. We believe that even with shareholder value as the ultimate criterion for financial decision making on our mind, we have to consider all the consequences of asset specificity of the players and their respective strategic positions. We believe that the main part of the criticism goes on account of fooling the investors. In our opinion, the strengths of the arguments of both parties strongly resemble those employed in the never-ending discussions on the efficiency of the stock markets. In both cases, the ultimate decision is to be made by the investors themselves and can be only facilitated by the respective financial theories of various credibility.

D. ASSET CLASSES

Securitization deals are typically categorized into multiple groups according to the underlying assets. The variety of assets that can be securitized is immense and ever broadening. According to our estimation, there are already as much as 50 asset classes that have been used in a securitization. Therefore we will mention only some of the basic

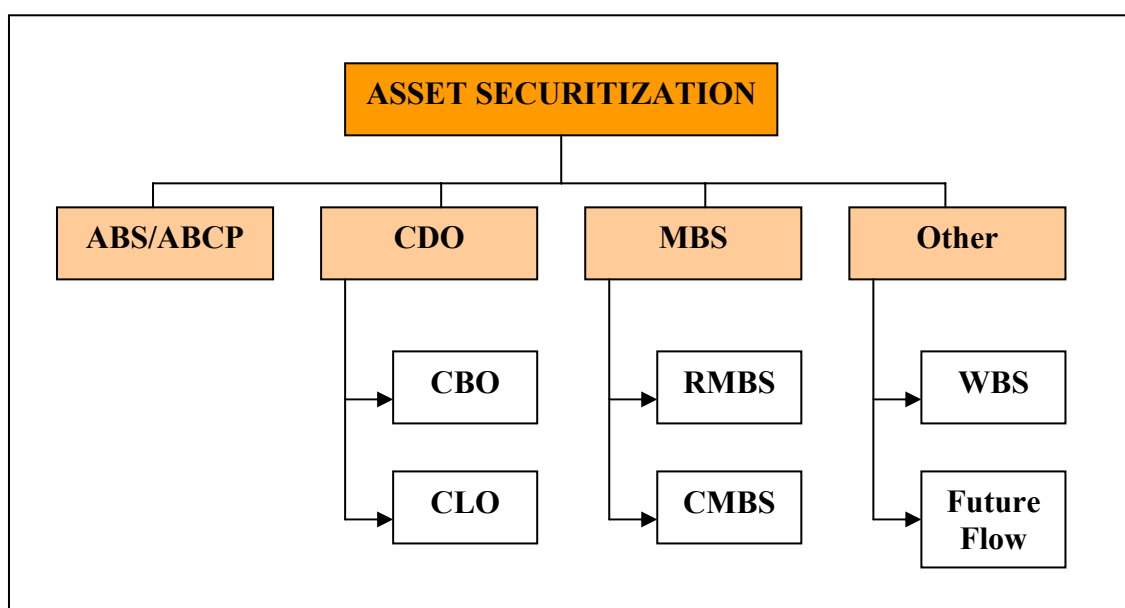
categories of asset-backed securities and the most common asset groups used to back them.

Note that the list organized by issuer type is far from being exhaustive:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Corporate issuers <ol style="list-style-type: none"> 1.1. Trade receivables 1.2. License and franchise fees 1.3. Royalties, movie libraries, sport tickets 1.4. Physical assets (inventory) 1.5. Whole business 1.6. Future flows | <ol style="list-style-type: none"> 2. Financial institutions <ol style="list-style-type: none"> 2.1. Mortgage receivables 2.2. Credit card receivables 2.3. Car, student, or consumer loans 2.4. Lease receivables 2.5. Corporate loans 2.6. Private equity 3. Government <ol style="list-style-type: none"> 3.1. Housing loans 3.2. PPP Projects |
|---|---|

However, most often the securities are referred to according to their affiliation to one of the following categories: asset-backed securities (ABS), asset-backed commercial papers (ABCP), collateralized debt obligations (CDOs; bond, or debt – CBO, CDO), mortgage-backed securities (MBS; residential or commercial – RMBS, CMBS), or other (notes from whole-business or future-flow securitizations, etc.).

Fig. 2 – Classification of securitization issues by asset classes



E. TRENDS IN SECURITIZATION

To understand the different aspects of the possibility that a viable securitization market develops in the CEE region, we have to seize the dynamics of the global securitization market first. Even though most of the major traits of the market development may be discernible from

the rest of the text, we will try to formulate here the principal driving forces and trends giving shape to the today's and especially to the tomorrow's securitization market. In USA, for example, securitization issues date back to the 1970s and the market still bears traits of higher development when compared with the rest of the world. On the other hand, European market did not truly emerge until the early 1990s. We may certainly draw some conclusions just from the comparison.

As we have already stated above, most of the recent developments in the financial markets can be explained and attributed to the improvements in the techniques of risk analysis and risk restructuring. Not only that the banks and other institutional investors are implementing new and more sophisticated information structures to assess the risks they run and forcing their agents to apply the most recent risk-engineering techniques to protect their income, but also the non-bank sector, including households or smaller corporations, is more and more prepared and willing to have recourse to such techniques in their everyday decision making. This may be illustrated by the stable growth in the use of derivative products and other techniques for hedging and risk transfer, like insurance, forfeiting, etc., in the recent years. The tendency is obviously intensified by the advances in information technology, lowering the transaction costs implied, and by the general trend towards disintermediation in financial services.

Trends in Market Size and Nature

Two isolated facts may aptly illustrate the significance of securitization structures in the today's debt industry: in 2005, the volume of securitization issues worldwide overtook the volume of issuance of corporate bonds; and, US securitization market is said to represent approximately one third of the whole outstanding US market debt. According to ESF Securitisation Data Report, European securitization issuance increased to EUR319 billion in 2005, up 32.3% from the EUR244 billion issued in 2004. Almost half of the amount (45.4%) was securitized in the U.K. According to ESF surveys, securitization issuance is expected to increase by some 15% in 2006 with most of the increase coming from commercial-mortgage-backed securities (CMBS) and collateralized debt obligations (CDOs). Securitization volumes by country of collateral are presented in the following table:

Table 5 – Securitization volumes by country of collateral (EUR billion)

Country	Population	2004	2005	Change
Austria	8.1	0.50	0.66	0.16
Belgium	10.3	0.95	0.50	-0.45
Denmark	5.3	0.00	0.11	0.11
France	60.0	7.02	9.08	2.06
Germany	82.0	6.50	21.66	15.16
Greece	10.9	0.75	2.25	1.50
Ireland	3.9	1.43	3.88	2.45
Italy	56.0	33.57	32.57	-1.00
Netherlands	16.0	19.64	35.99	16.35
Portugal	10.3	7.11	7.60	0.49
Spain	42.7	34.47	42.45	7.98
Sweden	9.0	1.53	0.28	-1.25
Turkey	68.9	1.00	2.68	1.68
UK	59.0	105.76	145.02	39.26

Source: European Securitisation Forum, 2006.

Historically, the volumes of structured finance debt have increased substantially over the last decade or so. The geographical dimension of the market development is also demonstrating substantial changes. An unprecedented boom of Asian securitization might as well be the major trend of this millennium's second decade in structured finance. In 2004, first securitization deals were introduced in two European emerging markets, Greece and Czech Republic respectively. The European securitization platform reaches beyond the original core markets like Germany, Spain, or Italy, and comprehends from now on the whole European community. The convergent development in Europe is probably one of the main reasons why Germany experiences strong pressures to adopt the so-called "true sale" approach towards securitization. Speaking about the convergence, we may remark that Lumpkin (2002) already noticed marked increase in cross-border securitization activities.

As for the trends concerning the individual players, we would emphasize in particular the immense growth in revenues from structured finance deals of the clearly oligopolistic rating agencies and in securitization-related fees for auditing firms which usually serve as trustees or servicers to the originator or to the SPV. In general, we may see the servicing functions in the more homogenized product types like CMBS to be more and more outsourced to external agents. The influence of rating agencies is expected to grow further owing to the expanded adoption of structured finance into both new geographies like the Czech Republic and new asset types, and also to the fact that companies increasingly obtain financing in the

public capital markets in addition to the banking system, a phenomenon known as “disintermediation.”⁸

Trends in Deal-Related Variables

Probably the most important trend in the structured finance markets worldwide is the unflagging demand for structured products from the investor side. The markets are both deepening and widening through arrival of new types of investors (hedge funds, insurance companies, corporate treasurers, high-net-worth individuals, public banks and funds, and even mutual funds sold to retail investors) and new types of distribution channels as well. The growth in overall volumes of traded securitized debt is reflected in the more and more common replenishment features of the deals and other structures providing for repetitive, timed, cheaper, and thus more attractive deals. These include master trusts, ABCP Conduits, or other specialized securitization funds.

The trend is supported by the accruing sophistication of investors who are prepared to undertake more specific risks in the markets with apparently higher liquidity, increasing standardization, and established originators. As we have already noted, this trend may be illustrated by the growing number of tranches per transaction. In Europe, we observe 3.93 tranches per issue as compared to 5.58 tranches in the United States (Firla-Cuchra and Jenkinson, 2005, 10), an estimated lag of some 4–5 years.

Relative stability of ABS as a risk class with consistently lower levels of default compared with other rated asset classes comes also in handy. According to the data presented by rating companies, recent years have shown outstanding rating stability with much more upgrades than downgrades. The spread stability (10–70 b.p. over LIBOR for the upper tranches) was also satisfying. According to traders close to the market, the bid/offer spread reflecting liquidity and price volatility has been narrowing in the last two or three years to be as low as 1 or 2 basis points for the top-most tranches.

Another major trend affecting securitization environment is blurring of the distinction between structured and corporate finance. Some authors point out the constantly increasing use of derivatives and securitization in the same transaction (Lumpkin, 2002; Sing, Ong, and Fan, 2002). This goes hand in hand with the emergence of a variety of new asset classes and

⁸ To illustrate the dimension of the impact, we may note that Moody’s revenue from structured finance products amounted to USD539 million, or to as much as 37% of its total revenue. Between 1996 and 2004, the same item grew by a compound annual growth rate of 28%.

structures, boosted by the mentioned extension of the investor base and its appetite. In all, securitization may enhance volatility of the capital markets by pushing credit risk from banks and other financial institutions towards petty investors. Recently, we can also observe a growing inclination of the credit risk and insurance risk markets to converge. This rather inconspicuous convergence arising from the increased practice to convert insurance risk into capital market risk and the use of complex derivative structures to avoid taxes rightfully arouse many concerns.

On the other hand, securitization brings in greater disclosure of information, causing sometimes corporate or private equity players to consider it as a somehow troublesome alternative. In general, securitization enhances transparency by issuing public debt with higher regulation compliance. This makes it different from the other off-balance financing techniques threatening the financial markets as it was the case with Enron.

PART TWO: OPPORTUNITIES FOR SMALL PLAYERS

A. EVEN SMALL MAY BE BEAUTIFUL

Czech Republic is definitely a small ring for big institutional players and regulators. Nevertheless, individual securitization domains demonstrating predisposition to frequently produce low-volume deals should be considered as essential for a successful securitization market development, as even the big players are “condemned” to carry out transactions tailored to the needs of the market. In the following chapters, we will try to cover here the most important features of such low-end securitization fields like SME, private equity, or intellectual property-backed lending. But even though many relatively smaller players are active in the individual transactions, we still believe that it is the big ones who are predisposed to set the major coordinates.

What Transactions Are Small?

As we have already mentioned, securitization is a very expertise-demanding process with excessively high set-up costs. Therefore, the critical volume threshold for a single transaction can be expected to be relatively high. And indeed, low-volume securitizations not reaching several hundreds of millions of U.S. dollars or Euros are rather rare. Just to provide a rough notion on the matter, we may point out that only 3.4% of the issues in an extended sample of securitization deals studied by Firla-Cuchra and Jenkinson (2005) were less than US\$50 million in size, and only 10.2% of the issues were less than US\$100 million. The same fact can be illustrated by the Irish legal requirement on a securitization SPV: the market value of all qualifying assets held, or managed, by an SPV must not be less than EUR10 million on the day on which such assets are first acquired.

According to an informant close to the European securitization market, minimum target volume for a transaction is approximately EUR100 million. Due to non-eligible receivables or discounts and to possible over-collateralization requirements, the nominal amount of receivables in the potential pool should reach some EUR120–130 million. However, in a multi-seller structure an equivalent to the sum (e.g., 3 times EUR30–40 million) is usually acceptable.

Introduction of Non-Bank Niche Providers

As we have already mentioned, introduction of non-regulated players like hedge funds, mutual funds, brokers, or particular corporate players, is a major trend in the risk-transfer industry. The current development is a big challenge for the regulators as the former are heavily buying in various risks they are not always qualified to assess. Therefore, various authors are referring in this respect to the so-called learning-curve danger, as the primary motive for such activities is an inherent profit insufficiency in the players' respective fields of practice.

On the other hand, securitization and other modern financing techniques have enabled non-bank niche providers of credit products, particularly of credit cards and mortgages, to effectively fund themselves and grow their businesses without external funding constraints. The same holds true for factoring or forfeiting companies, as well as for mono-line issuers like big multi-national retailers or car loan providers. Also, some of the unregulated institutional players may represent the needed investor demand for structured securitizations' FLPs. As we have noted earlier, even in countries with developed securitization markets, market with FLPs is still highly illiquid, if not completely nonexistent, and the mezzanine investors require high "illiquid" premiums. The same holds for any purchases of the C notes arranged usually as private placements.

A successful use of securitization techniques can be effected in most niche domains. As an example, we may cite their application by a Singaporean real-estate developer: already in 1999, local investment company financed its headquarters office building through a S\$185 million transaction covered by 10-year fixed-rate bonds. In the transaction, the floating cash flows from the estate, fluctuating naturally with the changes in the occupancy rates and leased rents, were transformed into fixed coupon payments (Sing, Ong, and Fan, 2002).

Pooling and ABCP Conduits

As we have already said, many originators introduce securitization schemes with inherent replenishment features to reduce the set-up costs of the deals. As we will see later, this was the case of one of the deals closed on the Czech market. Another way to do this is to aggregate bigger pools of assets to benefit from economies of scale and to dissolve the costs into bigger volumes of securities.

Most often, the so-called ABCP conduit, usually sponsored by a single large bank, is established to purchase assets from a range of originating debtors. Such scheme is called a

“multi-seller” structure as opposed to the single-seller revolving facility. Another possibility would be combining smaller pools, creating thus “multi-originator” structures like in the case of the Spanish FTPYMEs⁹. In the multi-originator structures, average originator contribution is only EUR19–54 million. A Spanish SGFT is responsible for collecting viable volume of assets, collating the data, co-ordinating the due diligence dialogues with rating agencies, establishing and operating the SPV. By Spanish law, a SGFT is incorporated to constitute, manage, and legally represent individual asset securitization funds, and to represent and defend interests of the holders of the securities issued by the fund. The same goes for the IAPMEI in Portugal.

The pooling structures may also be revolving. In such cases, collections are used to purchase further receivables or other assets to be securitized. Suchlike conduits may use dynamic credit enhancement, i.e., credit enhancement constantly adjusted based on changes in the pool performance. This has several benefits. On the one hand, the issuer benefits from good pool performance and thus has no incentives to cherry-pick or otherwise draw on the information asymmetry. On the other hand, such features prevent investors from early wind-down in case of a one-off spike in the pool conditions. Moreover, investors are usually granted full coverage by liquidity facilities providing alternative funding source to repay maturing commercial papers in case of market disruption, asset/liability cash-flow mismatches, or cover shortfalls in collections caused by servicer defaults. These facilities are typically 100% of the program size.

The conduits may be “socialized” or “non-socialized.” These categories refer to how the SPV waterfall works, i.e., how the cash flows are internally allocated in the structure. In non-socialized conduits, there is no reallocation of excess cash flow until each series is paid its full amount. Socialized conduits pay the expenses, including the monthly interest to investors, based on the needs of individualized series. Generally, the socialized excess spread is socialized across all securities issued by the conduit. In a non-socialized trust, on the contrary, the notes have their own separate excess spreads.

Currently, the ABCP market is a very deep market for short term funding. The issuance costs are relatively low as are the required covenants and disclosure. Critical mass of dedicated assets needed for a commercial paper issuance amounts to about EUR40 million. The main differences of the ABCP and ABS are displayed in the following table.

⁹ Fondos de Titulización de Pequeñas y Medianas Empresas, or SME securitization funds.

Table 6 – Characteristic features of ABCP and ABS

	ABCP	ABS Bond
Security	commercial paper	structured bond
Maturity	up to 1 year	1–15 years
Purchaser	SPV within the conduit	special SPV for the particular seller
Rating	program rating	individual rating
Volume	EUR50 million	EUR250 million
	may change	fixed
Implementation Costs	relatively low	high
Complexity	relatively low	high
Disclosure	not necessary	full disclosure

Source: Turek, 2006.

There is one more thing to the repetitive structures: conduits and other structured vehicles build up possibilities to brand the respective financing products. With ever increasing involvement of private investors in the field, we believe that branding activities will be more and more important for marketing the debt and filling in strategic positions. Successful branded securitization programs like German KfW Promise (KfW) or Scaldis Capital program (Fortis Bank) are just a small demonstration of this trend. The volumes of such foremost European ABCP programs reach some EUR10 billion each.

B. SECURITIZATION IN SME FINANCE

Ordinarily, a company in search of external funds has three primary choices: getting credit from financial institutions, raising additional equity directly in the capital markets, or issuing marketable debt. However, depository institutions like banks providing credit to the corporate sector must provide a buffer layer of capital which may be too expensive. Financing small and medium companies through securitization transactions starts to be a viable alternative to more traditional financing possibilities.

European SME securitization, although accounting for only a relatively small part of the overall market volumes (approximately 3% of the sum), is an established asset class attracting increasing attention from analysts and investors and, contrary to most of the other asset classes, is substantially larger than in the USA. In 1999–2002, new issuance was EUR16.9 billion in Europe, as compared with EUR2.5 billion in the USA (GBRW Limited, 2004). That is also one of the reasons why we have decided to treat this specific category in greater detail. Another motive is the significance of local know-how in securitizing corporate debt. Yet another is the relatively lower volume of individual transactions involved in the

category. That is why we believe that some SME securitizations are certainly among the first to be carried out in the Czech Republic.

First European SME portfolio was securitized by Deutsche Bank in 1999. More than 50 issues totaling at least EUR25 billion were realized since. Average size of an European SME transaction is hence approximately EUR500 million, with median value being even lower. Most of the transactions were realized in Germany or Spain, as these two countries provide specialized SME securitization programs, KfW Promise and FTPYME, respectively. Also, European SME securitizations are supported by credit enhancements provided by the European Investment Fund (EIF). A minor disincentive to the development of the industry is a relatively low level of homogeneity of the deals. However, this is expected to improve with Basel II implementation and further convergence brought by adoption of IFRS.

Basically, there are at least four distinct ways of how to include a corporate element in a securitization. These are: 1) securitization of trade receivables, 2) future-flows securitization, 3) whole-business securitization, and 4) corporate debt repackaging by the use of CLOs or CBOs. In general, non-financial institutions securitize their assets to reduce direct financing from financial institutions and to achieve lower funding costs, as properly structured funding is not reliant on the originator's credit rating. However, in many SME securitizations, the company originating the debt would not be even aware of the transaction.

Why Do SME Securitize?

As we have noted above, a need for better access to external credit is an obvious incentive. Funding motives to securitize comprise several distinct elements: funding at rates normally reserved for entities with superior credit ratings, longer term funding, diversification of funding sources, higher liquidity, as well as access to international capital markets for unrated or low-rated originators which will be prevailing in the emerging markets.

Nevertheless, there may be further decisive advantages. In some cases, securitization can serve as a way to improve the company's balance sheet or financial ratios. However, possible off-balance sheet treatment of certain items does not directly imply any explicit tendency to corporate misbehavior. On the contrary: engagement in a securitization program may entail better discipline through rating and standardization pressures. Also, securitization can be used as an asset-and-liability management instrument to achieve better match between the respective durations of assets and liabilities or to capitalize on more appropriate leverage

levels. All this can lead to a substantial increase in return on equity and in the shareholder value without having the smallest impact on client relationships.

Even though the most common securitization pattern with SME would be based on an ABCP Conduit program, securitizing receivables directly at the company originating the debt is an alternative. The rationale behind the scheme is roughly the same as with factoring or forfeiting and may be of strong urgency in the Czech Republic: Why should companies act as bankers to their customers? A company with revenues of EUR500 million and collection period of 45 days is essentially running a 60 million loan portfolio. But factoring is expensive, and in the Czech Republic it is still regarded as measure of desperation. On the other hand, prompt payment discounts may shorten the cycle, but they carry high annualized interest rate. Revolving credit facilities are often used in this case, but these are as well ineffective – the over-collateralization ratio may reach some 130–150% and the interest rate comes up to levels used for illiquid and highly volatile mortgages.

Table 7 – Financing by bank credit vs. securitization (example)

	Share	Cost of Capital
Revolving Facility Advance	0.75	1.03
Equity	0.25	1.08
Over-collateralization	1.33	
WACC 1		4.25%
Securitization A	0.85	1.03
Securitization FLP	0.15	1.08
Over-collateralization	1.18	
WACC 2		3.75%

Source: Turek, 2006.

In developed markets, companies eligible for direct securitization are usually required to dispose of trade receivables valued at no less than EUR50 million, even though deals of a size as low as EUR20 million are not automatically disqualified. The most important difference from traditional issuance of debt is that, owing to the structure of the deal, non-investment grade companies are gladly welcome. On the other hand, applicants should demonstrate a wide and varied customer base and historically low default rates. These requirements typically qualify for securitization public utility companies or big multi-national retailers.

Even though securitization of trade receivables is the most common case, future flows securitizations may be useful as well: they may be used to convert illiquid assets like aircraft or oil wells into liquid tradable capital market instruments. Other future-flows securitizations can include flows arising from inventory, finance arrangements like leases or rental contracts, unbilled but predictable items like gate receipts, road tolls, patents, etc.

As we shall discuss later on, future-flows and whole-business securitizations as well as CDO repackagings may be of big use in the private equity business and in financing specialized information-intensive projects. Here, the know-how advantage is absolutely crucial: local banks tend to specialize in financing activities that are difficult to assess and contain a large measure of subjectivity, as over the course of a long-term relationship, banks acquire information that helps to attenuate the information problems associated with the lending activities.

C. SECURITIZATION OF PRIVATE EQUITY

In recent years, private equity has become one of the most important alternative asset classes to the more traditional portfolio investments of institutional investors. Most private equity transactions are carried out through specialized venture funds concentrating usually on one or more of the major venture investment strategies like early/late stage venture, leveraged or management buy-outs, special situation, etc. Some of the drivers for the private equity industry match those of the securitization markets, mainly investor appetite and sophistication. Investors with private equity exposure usually need to be prepared to accept unscheduled or spasmodic cash flows. As for the industry itself, private equity securitizations significantly broaden the investor base and increase liquidity. Publicly traded CDOs may be an efficient gateway for both institutional and retail investors into the branch. They offer good opportunity for portfolio diversification by investment style, industry, exit strategy, etc. Also, as was already implied with the SME issues, they open the usually highly provincial markets to foreign investors.

Securitizations of operating assets are used as a corporate finance tool notably in acquisition finance and represent an investment-grade bond alternative to mezzanine and high-yield debt instruments. In United Kingdom, for example, projects as diverse as pub houses, nursing facilities, shopping centers, airports, ferry operators, water utilities, or even theatres were securitized in whole-business transactions. All those projects had several characteristics in common: 1) significant real-estate assets; 2) strong and predictable cash flows; 3) monopoly market position, and 4) high industry entry barriers. Nonetheless, most private equity securitizations are carried out via tranches of CDOs or CBOs which are overwhelmingly based on debt. For the time being, transactions combining debt and equity in complex hybrid securities are rather rare. Sometimes, securities backed by private equity cash flows are referred to as CFOs (“collateralized fund obligations”). As their cash flows are more or less

unpredictable, the payment distributions are very “lumpy.” That is the reason for the fixed coupon of a typical CFO to be rather low. An external facility designed for “smoothing” the uneven cash flows might be a good device to mitigate such discomfort.

As we have said, a typical SPV would be incorporated under a favorable jurisdiction, mainly for the reasons of tax neutrality and bankruptcy remoteness. However, in private equity securitizations a limited partnership or LLC is used, since somebody has to manage the stakes in portfolio enterprises. For such ownership reasons, sometimes more intricate structures having recourse to derivative instruments like credit-linked notes, return swaps, etc., have to be used.

Private-equity securitization has of course obvious disadvantages. As we have already indicated, the timing of private equity payments often depends on the business cycle or the capital market sentiment – for example, it might not be the right time for launching IPOs, or strategic investors may cut the market dead. Therefore the SPVs have to provide more substantial provisions than with other underlying assets. Also, should the underlying funds be publicly marketable, an unfavorable change in tax duty may occur.

There are considerable drawbacks for the sell side too: equity securitizations may be associated with various legal fees and expenses, inconvenient disclosure of confidential and potentially sensitive fund or portfolio company information to third parties, increased risk of litigation from the side of investors, or anti-money laundering compliance issues. But the latter ones may be interpreted as a way how securitization brings transparency and discipline to equity markets as well. In this regard, Forrester (2003) asserts that any introduction of asset-backed securities always affected the respective markets with the underlying instruments. And the influence is entirely positive. Historically speaking, secondary markets with CBOs have enhanced liquidity of high-yield bonds market and have reduced its volatility. We have enough reasons to believe that the deepening of the market together with introduction of reliable rating standards will enhance greater benchmarking and probably even pose a threat to inferior private-equity managers.

D. SECURITIZATION OF INTELLECTUAL PROPERTY AND OTHER INTANGIBLE ASSETS

Securitization of intellectual property and other intangible assets is and will very probably remain a minor line of the market. Yet, it is one of the most dynamically developing market segments. The business got its glamour already in the eighties with the invention of

the so-called Bowie Bonds¹⁰. These are commercial notes backed by artistic patrimonies creating sufficient streams of cash from royalties. Today, the range of assets covered is much broader, including brand names, trade marks, copyrights, license fees, patents, internet domain names, etc. To give just few famous examples of successful IP securitizations, we may mention the USD1.4 billion securitization of the Formula 1 rights including brand names, trade marks, and license fees, the Biopharma Royalty securitization of USD112 million in revenues from university patent for HIV medication, or the Madame Tussauds £230 million securitization of trade marks, copyrights, and internet domain.

The principal reasons to securitize intellectual property are monetization of illiquid assets and capitalization of the off-balance intrinsic shareholder value. A significant portion of many a company's value lies in its tacit, un-accounted knowledge, or in strategic advantage bound to specific intangibles. Generally, these are not valued on the balance sheet, unlike tangible assets such as land or buildings. Therefore, companies are looking for methods to capitalize such "intrinsic" assets and employ them more effectively to raise finance and add value to their operations. Securitization is one of the most transparent and effective ways how to achieve this.

Also, securitization may fund increasingly expensive research and development. In the net present value-based calculations, R&D ventures are very often assigned negative values, even though they might present an excellent business opportunity under some very specific circumstances that may be better analyzed under the real-options theory framework. However, such business opportunities are usually impossible to tap on without viable financing structures. In such cases, securitization may be the key to leverage on the opportunity.

Due to the relatively instable cash flow and higher information sensitivity of the transactions, IP securitization notes tend to be issued on a private basis. In spite of this, the general requirement of sufficient, predictable and determinable cash flow holds strong. Moreover, there is a frequent requirement on the IP rights income stream to outlive the securities' maturity (similar to the "over-collateralization" concept). Also, in patent or brand securitizations, the maturity should be shorter than the barrier-breaking time for newly introduced products.

¹⁰ Named after the first deal of the kind, a USD55 million issue backed by the music catalogue of David Bowie, a popular British rock singer.

Up to now, intangible assets securitizations were having relatively lower number of tranches. Nevertheless, considerable tranching should theoretically pay off in transactions with higher information sensitivity. Moreover, some of the microeconomic models (see for example Firla-Cuchra and Jenkinson, 2005) imply that information-sensitive portions of the cash flows should be sold rather than retained in case the degree of asymmetric information is not too severe. This might require even more sophisticated structuring to place the assets affected by asymmetric information.

PART THREE: OUTLOOK FOR SECURITIZATION IN THE CZECH REPUBLIC

A. DOMESTIC MARKET

Czech Republic: Market too Small for Securitization?

Even though western securitization markets have flourished in the past decade and came to a surprising boom at the very beginning of the new millennium, markets in Eastern Europe are obviously far behind in this respect. To talk about a well-established market environment or market infrastructure would be a deceit. Even though the first securitization deal in the region – a Turkish credit card future-flow private placement – dates as back as to 1993, only a handful of similar deals have been closed since, mostly in Russia and Poland.

Several questions may come to one's mind when seeing the lag. Is it caused mainly by the lack of institutional design, by the relatively smaller volumes of business done in the area, or by the aggregate delay of the CEE economies? Or is it the other way round that the rapidly growing economies with abundant foreign direct investments easily do without expensive, expertise-demanding structures? Another interesting question would be whether the obvious requirements on volumes of the particular transactions do, or do not, imply disqualification of local players. We shall try to assess the cases in which the know-how of the regional banks may prove to be indispensable. Also, we shall look at what are the prerequisites for their successful integration into the origination process.

In general, answers to the questions above would be slightly different for each respective market but the major trends are certainly common to the whole region. Be it this way or the other, CEE countries are certainly entering into a phase of swift expansion in the domain of structured finance and the Czech Republic will not stand aside.

Realized Transactions

As far as we know, there have been concluded only two securitization transactions in the Czech Republic to date. The EUR88 million revolving securitization of credit card receivables originated by Home Credit Finance arranged by CSFB and secured by Česká pojišťovna became notorious. The program comprised of more than 160,000 revolving credit lines opened to Czech individuals with average outstanding balance of approximately EUR600. Included were only credit lines with two realized installments without delay

exceeding 14 days. The underlying interest rate exceeded 20%. To the date of the transaction, annual write-offs were among 5 and 10% with recovery rates of approximately 40%. Two tranches were issued as may be seen from the following table.

Table 8 – Home Credit Finance credit card securitization

ABS Class	Rating	Volume CZK'000	Share	Rate	Spread
A	A2	2,306,270	81%	float	conduit + 1%
B		540,977	19%	float	PRIBOR + spread
Total		2,847,247	100%		

Source: Home Credit, 2005.

The topmost tranche was bought by an ABCP Conduit, the B note was privately placed. The credit enhancement consisted in a relatively high excess spread (approximately 20%), in the subordinated tranche, cash facility amounting to 3% of the A tranche, and an originator reserve account.

According to Pavel Plachký, managing director of Home Credit, the main motivation to use securitization was the opportunity to raise cash for business development under competitive price conditions and to enhance the diversity of funding sources. In time of the transaction, Home Credit had corporate credit rating Ba+ (CRA Rating).

In addition to the transaction just described, we are aware of at least one securitization deal related to the Czech market. In early 2006, Czech and Polish Raiffeisenbank branches have cooperated with KfW Mittelstandsbank on the very first synthetic securitization of bank loans to SME in Central Europe. The transaction was arranged by DKW. Through a credit derivative structure, KfW assumes some of the banks' credit risk to help them release regulatory capital. There was no true sale of the underlying assets in the transaction.

B. ANALYTICAL FRAMEWORK OVERVIEW

For a reasonable analysis whether a particular market is ready for the development of its proper securitization industry, we need to set up a specific analytical framework. Our framework will be based on Michael Porter's competitive advantage approach, developed originally to study determinants of international trade (Porter, 1980). We feel that in studying whether a specific market emerges or not – and in case it emerges, then how it does –, such an approach is not only justified, but more than appropriate. We hope that based on the application of such a framework on the current state of the Czech capital market, we will be

able to predict certain characteristics of the development and to make useful recommendations.

The analysis will develop in three successive stages. First, we shall present a model systemizing the strategic considerations of firms willing to expand in the given industry. The model will be modified with respect to securitization or securitization-related fields of business. Second, we shall apply the modified model on the national environment to set up a competitiveness analysis. Finally, we shall try to identify the potential pool of assets to be securitized in the initial phase of local securitization market development.

Strategic Considerations

To start with, we present four key premises of the Porter paradigm and we try to explain their relevance for the securitization industry. For a firm to establish local line of business, gaining additional competitive advantage is a condition *sine qua non*. Therefore, we have to understand the basic dynamics of this process first.

1. The nature of competition and the sources of competitive advantage differ widely among industries and even among industry segments.

Understanding that overall competitiveness of national economy is not a sufficient condition for satisfactory securitization market development gives us more scope to examine the variables conditioning the process. Without agreeing on this premise, our research would not make enough sense. It also gives us the incentive to look for the basic macroeconomic determinants of competitive advantage in the securitization industry.

2. Successful global competitors perform some activities in the value chain outside their home country and draw competitive advantage from their worldwide network.

The second premise is already enriching our reflection in a substantial way. Should we accept it directly, our scope of potential originators and issuers would be much better profiled than without the assumption. We shall use this premise more in the third step of our analysis as one of the relevant criteria for the assessment of the players.

3. In modern international competition, firms gain and sustain competitive advantage through innovation.

Focusing on innovation is one of the principal features of any subject involved in a securitization deal in an emerging market. After all, continual innovation is the main driver of this highly competitive industry. Therefore, an environment encouraging innovation is a must

for a successful securitization market development. Players contented in their everyday operation and not willing to accept the challenge of rapidly changing working conditions cannot meet the standards necessary for a successful entry into a securitization market.

4. Firms that successfully gain competitive advantage in an industry are those that move early and aggressively to exploit a new market or technology.

This premise does not simply extend the third one. Also, it may serve us as a hint on the initial dynamics of a highly competitive niche market development. According to this assertion, players who enter the securitization market in its initial phase should be the same as those that will exploit it to their very best. The entrance barriers may be too high and the hardly built relationships may be the most precious assets in the later stages of the development. The latter two premises go in hand with what has been already said about the reasons to securitize: growing, offensive banks with low equity ratios facing larger bankruptcy costs are much more likely to securitize than stable, well-positioned giants.

National Attributes

Even though it is basically firms who compete, the creation of competitive advantage is promoted or impeded by the attributes of a nation shaping the environment faced by domestic firms. Porter distinguishes four major attributes to examine: factor conditions, demand conditions, the vigor of related and supporting industries, and the industrial structure combined with the cultural context (Porter, 1980). A nation can be assessed within this framework to determine its likely ability to foster and maintain specific industries. On top of that, Porter considers two more, rather auxiliary, variables: government actions and chance events.

Porter's considerations are not completely unfamiliar to the securitization industry analysts. For example Barlett (in Kravitt et alii, 2005) proposes five general macroeconomic determinants of whether a country has the potential to become a volume user of securitization as a financing tool. These are: 1) size of population, 2) growth and inflationary pressures, 3) competition for market share in consumer finance products, 4) securitization-friendly legal and regulatory environment, together with active sponsorship by government, and finally 5) not excessively cheap loan markets making the capital markets an unviable alternative. As may be clearly seen, most of these determinants are just specifying some of the aspects brought forward by Porter. However, the fourth determinant in particular is obviously enriching our framework in a significant way.

In our modified model, we shall include the question of potential government support into a newly created category of “Business Environment.” Also, for the purpose of good arrangement of the themes, we shall consider the original “Related Industries,” and “Strategy, Structure, and Rivalry” categories under a common label of “Industry Structure.” Nonetheless, we shall examine in our analysis all the attributes of the outlined competitive advantage framework, focusing more on those having inherent relevance for the industry.

Demand Conditions

Demand conditions in the home market stimulate domestically-based firms to bring new products to market. The sophistication of the products and the timing of their introduction depend heavily on the characteristics of the domestic market.

We may reasonably expect that in the initial phase of any securitization market development, transactions with domestic assets securitized will prevail. This assumption is based on the competitive advantage arising from the information asymmetry and from the use of local know-how. Certainly, a recently emerged market lacking attractive origination track record is not going to be a magnet for foreign issuers. On the other hand, investor demand for exposure to the emerging markets is substantial and global in its character. Also, we expect that the domestic institutional investors have relatively good access to the secondary ABS markets. Therefore, our attention in this respect is focused more on the “sell” (and “structuring”) side than on the “buy” side of the transaction. Yet, the latter assumption is to be verified. Should there be no satisfactory investor access to the secondary markets, we would have to presume important information barriers within the industry.

When analyzing demand conditions for securitization transactions in the home market, we shall look especially at the following indicators: size of population and GDP; growth and inflationary pressures; competition for market share in consumer finance products; and competitiveness of the local capital market, especially in comparison with the loan market. We will try to identify the nature of the issuers’ needs through assessing size and pattern of the domestic market in the third phase of the analysis.

Factor Conditions

Factor endowments play a more complex role in determining national competitive advantage than generally acknowledged. We have to realize that most of the endowments are dynamic, and thus may be created, upgraded, or specialized. Factor abundance in the pivotal resource categories is a precondition for successful development of competitive advantage. As

long as securitization industry is concerned, there is basically only one fundamental input factor to be assessed in this way, and that is highly skilled labor equipped with an adequate field-specific knowledge basis.

However, selective disadvantages may also contribute to an industry's success by influencing strategy and stimulating innovation. This is certainly true for securitization. As we are going to develop later in the discussion on demand conditions in the home market, limited capital resources, for example, may serve as an accelerator in the field. Other intangible factors like intra-industry communication infrastructure or legal environment are also treated further on in the "Industry Structure" and "Business Environment" categories.

Industry Structure

Another source of competitive advantage may be seen in the presence of well developed horizontally-related industries. Therefore, we should be interested in the shape of the local banking industry and in the influence of financial institutions on the domestic market in general. Furthermore, we should try to assess the quality of the industry infrastructure – especially, we have to look at mechanisms of communication of the debt issuers' needs towards the capital market, and at the existence or non-existence of any securitization or structured finance platforms or consortia. Strategic motivation of the respective players and managerial attitudes in general will be of significance as well. Moreover, we have to take into account the general ownership structure of the involved actors. Foreign and private capital will be considered an asset in this respect.

Business Environment

Last but not least, we have to assess the relevant aspects of business environment. Securitization-friendly legal and regulatory environment is undoubtedly the most important precondition of a successful securitization market development. Within unfavorable conditions, securitization transactions are hardly to be closed.

Tax, accounting, and currency issues come also under this important category. Three basic situations may be assessed in every one of these aspects: the environment may be "securitization-unfriendly," or disqualifying any reasonable securitization activity, "securitization-neutral," or "securitization-friendly." Non-Euro currency environment may be considered as an example of a securitization-neutral situation: even though atypical currency is not a major obstacle to securitization, we would expect Euro currency originators to be strongly favored, especially in the later phases of market development. Situation assessment

would be similar for the remaining categories. Also, for the purposes of this paper, we include government support in the “Business Environment” bracket even though we are well aware of its specific position. The key characteristics of the market we are going to assess, are summarized in the following table.

Table 9 – Analytical framework overview

Portman	Modified Model		Barlett
Demand Conditions	Demand Conditions	GDP and Size of Population	Size of Population
		Growth Pressures	Growth Pressures
		Competitive Capital Markets	Competitive Capital Markets
		Competition in Consumer Finance	Competition in Consumer Finance
Factor Conditions	Factor Conditions	Knowledge Economy	
Related Industries	Industry Structure	Banking Sector Strength / Industry Infrastructure	
Industry Structure		Strategic Motivation	
Government	Business Environment	Government Sponsorship	
		Legal and Regulatory Environment	Legal / Regulatory Environment
		Currency Issues	

C. MARKET ANALYSIS

GDP and Size of Population

We consider the size of a country’s population and its related market indicators like GDP to be apposite proxies for the overall local demand potential in specialized and structured finance solutions. The logic behind this conclusion is simple: the bigger the amount of overall corporate and consumer financing needs, the better the possibilities to draw on economies of scale in providing market with solicited resources. Also, bigger markets offer better opportunities for leveraging on highly specialized origination and structuring skills.

Last but not least, there is strong evidence that despite the fact that political risk certainly is of a concern, emerging markets in populous countries like China, Russia, Turkey, or Romania are able to originate more securitization transactions than definitely better developed but smaller countries like Estonia, Slovenia, or Hungary. Moreover, a recent Latvian residential mortgage deal has shown that political risk can be effectively offset by including embedded insurance into the transaction structure. Such a practice is already reflected in literature (Colomer, 2005; Das, 745, 2005).

Given the 2004 and 2005 securitization issuance volumes for 14 European countries, we have calculated the following correlation coefficients.

Table 10 – Securitization volume determinants

	Correlation with current volume
Population	0.41
GDP	0.55
Previous-year volume	0.99

Source: OECD, ESF, 2006.

As might be seen, securitization volumes are indeed strongly correlated with both population and GDP. In compliance with our expectations, the correlation with GDP is more articulate. Moreover, current securitization volumes are fully correlated with the previous year's volumes. In simple terms, securitization issuance levels do not tend to change dramatically on a year-to-year basis. This is explained by the rather high costs of securitization funding for first-time issuers and by significant economies of scale that might be drawn upon establishment of routine securitization practices.

However, the following table shows that despite these strong correlations, there are substantial differences in how these relations work for the individual countries. United Kingdom, Netherlands, Spain, Ireland, and Portugal are clearly outstanding as securitization domiciles.

Table 11 – European securitization

Country	Population (million)	Volume issued in 2005 (EUR billion)	GDP	Volume per capita	Securitization as % of GDP
Austria	8.1	0.66	191.7	81.48	0.34
Belgium	10.3	0.50	235.9	48.54	0.21
Denmark	5.3	0.11	126.6	20.75	0.09
France	60.0	9.08	1349.0	151.33	0.67
Germany	82.0	21.66	1732.4	264.15	1.25
Greece	10.9	2.25	176.0	206.42	1.28

Ireland	3.9	3.88	106.6	994.87	3.64
Italy	56.0	32.57	1182.1	581.61	2.76
Netherlands	16.0	35.99	372.6	2249.38	9.66
Portugal	10.3	7.60	149.8	737.86	5.07
Spain	42.7	42.45	800.8	994.15	5.30
Sweden	9.0	0.28	200.5	31.11	0.14
Turkey	68.9	2.68	405.2	38.90	0.66
UK	59.0	145.02	1380.9	2457.97	10.50

Source: Turek, ESF, 2006.

According to the data, Czech Republic issuers would be expected to originate some EUR100 million of securitized assets per year, should they catch up on the slowest economic systems in the table. To reach levels matching with the better part of the group, multiples of this would have to materialize. Thus, there is enough reasonable space for several securitization deals to emerge in the near future, however, the implicit pressures are not that strong as would be the case for countries like Turkey or India.

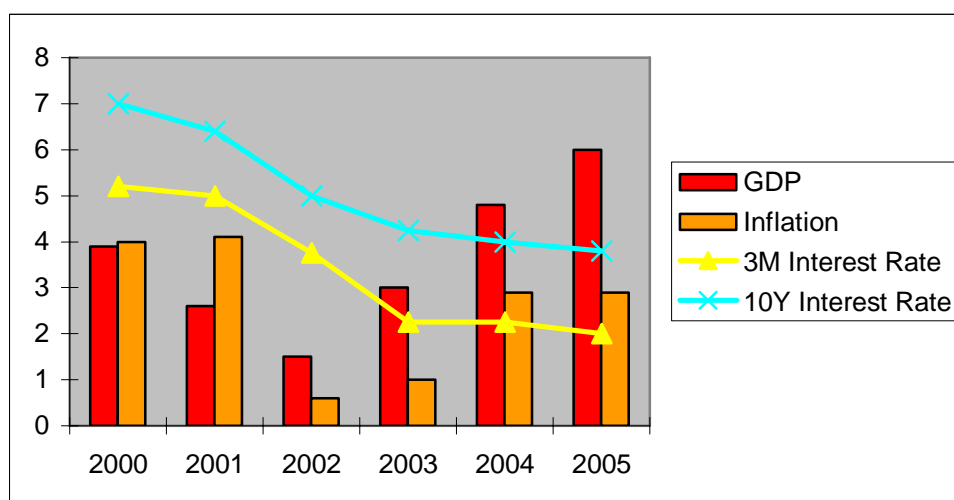
Growth and Inflationary Pressures

As struggle for cheaper funding is one of the most important drivers of securitization transactions, growth and inflationary pressures are presumable prerequisites for a securitization-friendly development. In growing markets, firms are facing stronger competition for resources and are better motivated to look for alternative financing of their operations. In expanding environment, firms are usually forced to increase their working capital through increased amounts of trade and other receivables and may be not willing to finance such expansion by raising equity. Firstly, retained earnings may not be sufficient to support an unexpected expansion and newly issued equity tends to be rather costly for the current shareholders. Secondly, the firm just might not like to deviate from its already achieved optimal capital structure. In such situation, raising funds by securitizing certain assets or operations may well be a viable alternative to expensive short-term debt facilities.

There is also an incentive for banks to securitize under such pressures. Rapid growth in extended credit may expose them to the tricky dilemma of either turning down many a lucrative opportunities with existing clients, or readiness to face substantive risks stemming from over-concentrated credit portfolios. Together with first-to-default baskets, credit default swaps and other credit derivative instruments, securitization may provide an useful tool to continue profitable client relationships under such conditions. According to Das, “the ability to continue to deal with the counterparties but without significantly increasing the credit

exposure to the parties,” was of a prime concern in the development stages of the international market with credit derivatives (Das, 2005, 710).

Fig. 3 – Macroeconomic indicators of the Czech Republic



Source: ČNB, Czech Statistical Office, 2006.

Czech Republic is currently going through an unprecedented phase of growth. In the last two years, the annual change in GDP amounted to impressive 5.3% and this pace is forecasted to remain stable in 2006–2007. However, there are no important inflation pressures and the ČNB interest rates remain persistently at some 2%. This, together with sufficient amounts of savings and relative scarcity of high-yielding investment opportunities, makes raising capital relatively cheap. According to some market participants, this may be even stronger disincentive for securitization than the legal deficiencies discussed later in the text.

Competitiveness of Local Capital Markets

As we have said, there are currently no significant pressures on companies to raise excessive amounts of external funds through new issuance of long-term debt or equity. The few initial primary offerings to come in the forthcoming years have presumably mainly strategic motivation. For deeper discussion on the topic of competitiveness of the local capital market, we refer the reader to specialized literature, like for example Mejstřík et alii (2004). For a brief introduction to the theme, see also the sub-chapter on local asset pool.

One of the most important questions concerning securitization and capital markets is obviously the following: May an ABS be listed on the local securities exchange? We are afraid that the answer is “no” at the moment. Still, even though the local markets certainly lag behind their western counterparts, there are some recent developments that might be of interest to potential originators and issuers. For example, the regulatory authority on Czech

capital markets has been only recently consigned to the Czech National Bank. This may further accelerate the developments. As what regards trading in securitization-related assets, domestic and foreign credit derivatives (mostly CDOs and credit default swaps) were until now traded only on the over-the-counter basis and there was little regulation if any. However, thanks to the changes implemented in the legislation, first listings of publicly marketable derivatives are awaited to materialize during the summer 2006. As listed securities enhance their attraction to potential investors – not only because of liquidity, but also due to the particular interest to mutual funds and other institutional investors – the impossibility to get listed on the local capital market is a significant disadvantage for any potential asset-backed security.

We have to make a warning on this matter. Even though looking for alternative asset classes – preferably uncorrelated with traditional instruments like debt or equity – is a clear necessity for any intelligent investor, extreme caution should be commonplace in the case of asset-backed securities and other credit derivatives. Due to their unusual risk profiles and legal complexity, they may be anything but suitable for an uninformed investor, should she be exposed to such risks via participation in unregulated open-ended investment funds, pension schemes, etc.

Competition in Consumer and Project Finance

In 2005, domestic banks have granted 51 thousand new mortgages to households. The total amount borrowed reached CZK73 billion or approximately EUR2.5 billion, an annual increase of 37.3%. Moreover, the volume of credit granted by licensed building societies is no less than CZK108 billion or approximately EUR4 billion. Due to the favorable macroeconomic conditions, retail banks intensify their arms race in fierce competition in providing all-purpose consumer loans. Almost every quarter, we are witnessing record sums of consumer credits granted to households. According to *Hospodářské noviny* (2/5/2006), Czechs have drawn some EUR2 billion through their credit cards and bank account overdrafts in the first three months of 2006 only. According to the Czech National Bank, aggregate household debt amounted to more than EUR15 billion as of 31 March 2006.

The corporate sector keeps abreast with the households. Czech companies are increasingly looking for new financing techniques to support their operating and restructuring plans. Following the successful privatizations of leading banks, financial institutions are also gradually broadening their range of financial products available. Besides traditional bank

borrowing, firms recur to financing alternatives like operating and financial leasing, factoring, or forfeiting. Especially the latter two methods are of interest for our purposes as they can be considered in many ways as standing halfway between advanced securitization techniques and standard financing of credit extended by temporary increases in working capital. According to the Czech Factoring Association (AFS ČR), factoring firms have traded receivable debt in total amount of CZK86.8 billion (or approximately EUR3 billion) in 2005, the total market growing by a compound annual growth rate of more than 16% in the last two years. As factoring cash flows are not passed further to external investors, amounts of receivables transferred need not necessarily exceed EUR1 million per transaction. Czech market in capital and operation leases is rapidly growing as well. According to the Czech Leasing Association (ČLFA), the top ten leasing companies have contracted new deals in an aggregate amount of more than EUR2,613 million in 2005 and the growth in volumes goes hand in hand with growth in class diversity.

Czech banks are commonly offering their corporate clients structured instruments like documentary letters of credit (L/C), tender guarantees, revolving credit facilities, etc. Moreover, banks have currently perceived the SME loan sector as the last niche that they can divide among themselves. Pospíšil, director for SME financing with ČSOB, asserts that the competition will get even shaper with the introduction of Basel II principles as the banks will extend credit in a blanket manner as is the case in retail. For loans under EUR1 million, banks may apply the so-called product approach to lending. Its obvious advantages like simplicity and promptitude are of course balanced with inevitable standardization and somewhat higher interest rates (Pospíšil, 2006).

Similar development can be seen in the equity area. Seasoned equity issues as well as various project finance techniques including subordinated debt and other mezzanine solutions are starting to play an important role in the development of businesses. For example, both in 2005 and 2006, Orco Capital Group raised EUR8 million of new equity through a step-up equity subscription program called PACEO arranged by its investment banking partner, market leader in securitizations, convertible debt, and other structured products. Growth, convergence and globalization of flows of capital are all strong incentives for the most competitive local players to exploit sophisticated solutions. As there is manifest hunger for such products, growing demand for securitization transactions can be expected.

Knowledge Economy

As we have already stressed, any securitization transaction is a data-intensive process that entails a great deal of administrative and legal work. As such, it will presumably flourish in countries with relatively abundant educated workforce. Only sufficient pools of insiders and potential experts can provide for valuable learning-by-doing environment where reservoirs of knowledge tend to arise. Certainly, mere presence of personnel having experience in analyzing or dealing in repackaged debt instruments like CBOs or CLOs may be the proverbial straw that breaks the bank's reserve vis-à-vis securitization.

To estimate the human potential of a country, we have to refer to an appropriate proxy. We decided to use the Knowledge Economy Index constructed by World Bank Institute and based on four distinct pillars: Economic Incentive and Institutional Regime; Education; Innovation; and Information and Communications Technology. The key innovation variables are further weighted by population. The methodology used reflects the fact that capital factors like information technologies or even economic incentives leverage the potential of available human resources. As might be seen from the following table, Czech Republic has significant deficits, mainly in information and communication technologies and education.

Table 12 – Knowledge economy (comparison)

	KEI	KI	Incentives	Education	Innovation	ICT
Germany	8.41	8.51	8.10	8.76	7.94	8.83
Ireland	8.14	8.06	8.36	8.00	8.15	8.40
Spain	7.77	7.81	7.63	7.65	8.10	7.68
Czech Republic	7.29	7.33	7.16	6.92	7.10	6.96

Source: World Bank Institute, 2006.

Should we need some more industry-specific proxy, we could consider for example the respective densities of CFA charterholders in the individual countries. We would expect the numbers of certified financial analysts to reflect more or less the overall capacities available in the advanced financial industries. Even though the picture remains much the same, we can see a much stronger position of Ireland in this respect:

Table 13 – Finance professionals (comparison)

	Charterholders	Population	Density
Germany	838	82.0	10.2
Ireland	205	3.9	52.6
Spain	253	42.7	5.9
Czech Republic	58	10.2	5.7

Source: AIMR, 2006.

Even though Czech Republic possesses many experienced professionals, there is still a post-communist structural change to be accomplished in this respect. Also, the numbers of potential professionals are somewhat reduced by the fact that many of them are proficient in German and not in English. Should we compound all these factors with the population scarcity, we will not get anything overly satisfying.

Banking Sector Strength and Industry Infrastructure

This sub-chapter is somehow complementary to the previous one. No securitization market will ever evolve without strong supporting infrastructure of related lines or industries. A strong and widely present banking sector would certainly compound the promising labor pool and would enhance the likeliness that at least some of the existing players tap on the nascent niche.

According to recent studies (Hájková et alii, 2005), Czech banking sector is relatively smaller as compared with the rest of the EU countries. Measured by banking assets/GDP ratio, its relative strength is more than 60% below that of banking sectors in Austria or Portugal. However, the local banking intermediation system is the most developed among all the other acceding countries with capital adequacy easily meeting the Basel requirements even after thorough stress-testing including scenarios with interest rates shocks, one-off depreciation of the currency, and significant increase in qualified liabilities. Banking assets amounted to more than EUR10 billion in 2005 (ČNB). The capital adequacy ratios are 12.6% (basic) and 10.4% (after stress-testing) respectively. Its stability is further enhanced by the recent high profitability of the sector.

Development of securitization practice will be certainly supported by existence of transaction distribution channels, local product or structuring departments, trading desks, or advisory boutiques. Also, the extent to which the local financial market has developed will have a strong impact on the viability of securitization. Availability and quality of hedging instruments such as interest rate or currency swaps are important factors.

Presence of renowned rating agencies is also of a concern. Low cost of acquiring and distributing information to credit rating agencies and investors about loans and borrowers plays a significant role in the market development. Cooperation of banks and corporate issuers with rating agencies could promote standardized underwriting criteria, advances in related IT applications, and better estimates of default probabilities and payment patterns under a variety of economic conditions. Also, publicly available models to prestructure deals

and subsequently engage in a dialogue with the agencies to finalize them might be of a considerable help to first-time corporate issuers. According to our knowledge, basic pricing models are already available for local traders, usually based on Monte Carlo simulation with the use of credit-rating transition matrices. Czech corporate issuers might as well leverage on their relations with assurance and advisory firms acquainted with the firms' processes due to the application of Sarbanes-Oxley legislation.

Another influential group of players in a nascent securitization market is formed by renowned international law firms and local attorneys. In many countries, promulgation of a new securitization framework has been championed largely by law firms, according to Colomer (2005).

There is one more important aspect of the industry infrastructure to be assessed and that is existence or non-existence of any securitization or structured finance platforms or consortia. An example would be the German securitization platform called True Sale International. It has emerged from True Sale Initiative, a group of 13 German and international banks which have joined forces to foster the development of the German securitization market. Similar initiatives are found in Spain and other successful European securitization markets. Creation of such a platform in the Czech Republic would be a strong stimulus to the development of local securitization practices.

Strategic Motivation

There are three main issues to be assessed in this sub-chapter, all of them related to the premises of our comparative framework. The first question is: Are the potential securitization players in the Czech Republic motivated to act promptly and aggressively to exploit new markets or techniques, or are they just accommodating followers? In a competitive industry such as structured finance, economic profits are gained mainly through innovation. Economies of scale play their important role, but the need to do things better than others provide for any development. The development stage of the market, in particular, is nourished by aggressive, innovating companies that are likely to pass the baton later on to bigger, more conservative players.

As a matter of fact, there is an incentive to securitize, that we have not mentioned yet, and that is the signaling function of any securitization transaction. As we know from corporate-finance textbooks (see for example Brigham and Houston, 1998), firms – or better, managements – have several possibilities how to reason the markets into their views of the

company's prospects, including discretionary changes in dividend policy, launching new debt-issuance programs to finance expansion, etc. In an early development stage of a securitization market, participation in a sophisticated deal may have a strong signaling function as well. The securitization of credit-card streams realized by Home Credit may well be an apt example of such a message.

The second, related question is whether the potential transactions in the Czech securitization market are rather to be issuer-, investor-, or arbitrage-driven. Even though the last decade experienced a strong increase in demand for investible emerging-markets credit including expositions to the CEE countries, we do not believe that the potential buy-side pressures would preponderate in a single small economy like the Czech Republic. Presumably, only a handful of institutional investors, if any, could be ever motivated to buy specially in Czech credit. Therefore, most of the transactions to take place in the Czech market are likely to be arbitrage- or issuer-driven. However, dealer-driven transactions like CDO repackagings intended to provide profits from differences between market price of the underlying assets and the price of the securitized risk sold are not bringing innovation nor any incentive to exploit securitization as a run-of-the-mill instrument for the players outside the banking industry.

The assessment of potential for original Czech-based issuer-driven transactions is subject of the third part of our analysis based mainly on the material data on Czech companies. However, we have to accentuate that according to several indications in literature and to the common-sense assessment of the situation, the key factor behind development of any issuer-driven securitization transaction is the initiative of the company's top-management or relevant executives from risk management or treasury departments. Origination of asset-backed debt depends in a decisive way on the managerial attitudes of the company's executives and will never materialize based only on a suitable or, on the contrary, a challenging asset structure.

Last but not least, there is the question of foreign elements in the potential companies' value lines and the ownership structure incentives to securitize. Do the Czech companies that could be considered potential originators of securitized debt possess significant foreign holdings or operations? Do their foreign owners provide them with required expertise, for example in the form of executive board members with international finance backgrounds? Are there strong alignments of interest between the management of the company and the owners?

For companies that will eventually use securitization to optimize their financing structure, these questions are likely to be answered in affirmative.

Government Sponsorship

European countries with significantly outstanding securitization markets usually benefit from some kind of government sponsorship. This can take many forms ranging from simple verbal support, through granting government or other public-agency guarantees and establishing or participation in long-term securitization programs – mainly in the SME finance –, to introduction of securitization-friendly legislation. Examples of good practice could be found in countries like Spain, Ireland, or Germany.

With rare exceptions to date (Jilek, 2005; Turek 2006), securitization has not been subject to any significant public debate in the Czech Republic. Accordingly, no government sponsorship has been solicited and consequently no relevant measure has been granted or even envisaged. The will of the political representation to explicitly support local capital markets – for example by privatizing the remaining stakes in the state-controlled companies via Prague Stock Exchange – is in general very unconvincing, especially if compared for example with the proclamations of the Polish government concerning capitalization of the Warsaw Stock Exchange. This situation remains a major drawback to the development of a stand-alone Czech securitization market.

It should be also remarked, that in its strategy document dating from 2003, the European Bank for Reconstruction and Development set up a goal to investigate, in cooperation with a major domestic bank, possible ways how to support Czech securitization of mortgage and consumer-credit portfolios (EBRD, 2003). Whether this goal was actually realized or not is not known to the author as of writing this text.

Legal and Regulatory Environment

Czech legal environment is not explicitly “hostile” to securitization. Nonetheless, the rather unconcerned attitude towards securitization and other structured finance issues from the side of the governmental and regulatory authorities may be considered as a major drawback. As far as securitization is concerned, Czech legislation does not feature any law specifically providing for establishment of a legal vehicle suitable for securitization. On the other hand, many European countries with developed securitization markets have sooner or later adopted specialized legislation concerning securitization. To illustrate the effect of the situation, we

note that the only to-date Czech securitization deals were structured under no less than three jurisdictions.

Under Czech law, an SPV does not have to be a particular form of business entity and does not require any specific authorization from any financial services regulator for the purchase of receivables. According to our limited knowledge of Czech law practices, a simple factoring or similar license should suit the purpose. Issues targeted only at institutional investors – what would very probably be the case in the initial stage of the market development – qualify as private placement and are not required to have public prospectus. However, any entity issuing publicly traded securities will have to obtain approval from the KCP (Czech Securities Commission) or similar authority.

Minor disadvantage in the Czech legislation can be seen in the fact that no entity can give up its rights before they arise which makes sense in the patrimonial or consumer issues, but may serve as a source of uncertainty in securitization deals among equally sophisticated parties. Another disincentive to the development of Czech securitization industry may be the fact that any income on the SPV's assets will be taxable at the standard corporate tax rate which is rather high if compared to the income taxations in other European countries. Besides, many of these countries practice important tax deductions or tax exemptions for qualified SPVs or do not tax interest income at all. However, local investments in traded securities, and hence the ABS, by individuals are exempt from the tax if they are held for more than six months.

As for other typical concerns, Czech legislation is quite securitization-friendly. Normally, be there no previous contractual objection among the debtor and the seller, receivables can be sold or assigned without the debtor's consent, under the sole condition the debtor is notified of the sale. A written assignment contract must be executed by the purchaser and by the seller.

However, certain ambiguity may relate to the so-called “future flow” securitizations, or securitizations in which receivables that do not yet exist are sold to the SPV. In such a case, receivables should be individually identifiable, and therefore an *ad hoc* legal solution would be advised. For example, the mentioned Home Credit securitization deal made use of a one-contract framework providing for daily assignments of underlying consumer credits (Jílek, 2005; Kravitt, 2005). Also, some important players like big multinational retailers take their advantage of the possibility to prohibit future cession of receivables as granted by current Czech legislation and thus inhibit the development of trading in SME credit.

In case the originator of the debt becomes subject to an insolvency proceeding, there should be no automatic freeze keeping the SPV from collecting or transferring its ownership rights over the purchased receivables. Still, it should be taken into consideration that even assets not belonging to the seller may be blocked by the bankruptcy administrator during the proceedings as part of the bankruptcy estate. In case of a secured loan, secured creditors are entitled to 70% of the proceeds. The remaining 30% is subsequently distributed among all unsecured creditors and any secured creditors whose claims have not been fully satisfied from the initial distribution. It should also be noted that security interests arranged in statutory periods preceding the bankruptcy declaration or deliberately violating public interests can be canceled by judicial authorities.

There are also accounting aspects to the Czech regulatory environment. However, these are not decisive for the market development process, especially with the prospect of continuing convergence of Czech Accounting Standards (CAS) and International Financial Reporting Standards (IFRS). Yet, there is at least one interesting feature to be mentioned in this respect. In accord with the IRB approach, the pooling principle for accounting of receivables was introduced by a ČNB regulation in 2002. Since 2003, domestic banks can use, under certain conditions, synthetic account “Receivable Portfolios”¹¹. Obviously, the principle has been introduced for the sake of growing share of standardized retail operations without any explicit intention to facilitate prospective securitizations. Nonetheless, the regulation reflects methods described in IAS 39 and in Basel recommendations on sound practices for loan accounting and disclosure which take into account, apart from other things, rating requirements.

In compliance with the mentioned regulation, banks can reduce book values of their portfolios, provided that: 1) they make use of advanced statistical models, 2) all receivables in the given portfolio are valued CZK5 million or less, and 3) all receivables in the portfolio represent less than one per mil of the balance sum of the bank. To comply with the first condition, the bank has to aggregate sufficiently homogeneous claims like credit-card receivables and to provide adequately robust time series reconcilable with the average maturity of the portfolio, or at least one business cycle. Furthermore, the bank is obliged to test regularly its estimators and to verify the adequacy of the model.

¹¹ “Pohledávky hodnocené portfoliově”

Currency Issues

Finally, there is one minor issue to be taken into account. Publicly traded ABS are usually denominated in one of the major currencies like U.S. dollar, Euro, or yen. In case the underlying assets or cash flows are in a minor currency like Czech crown, additional derivative features have to be embedded in the securitization structures. This may heighten the structuring and hedging costs required. Also, any exposures to additional risk add to the investor discomfort in general. Therefore, countries making use of important reference currencies as legal tenders will presumably benefit from cheaper funding costs than their other-currency counterparties, including the Czech Republic. Therefore, even though Czech crown is a relatively stable European currency with Moody's currency rating of A1, we have good reasons to believe that the adoption of Euro currency will be a strong spur to the development of the Czech securitization market.

D. INTERNATIONAL COMPARISON

We believe that an appropriate institutional design together with marked government sponsorship may induce an attractive progress in the development of local securitization market. Several European countries may serve as good examples of merit of such a joint action. Their competitiveness in the domain of capital markets is certainly very high as compared with the CEE countries, but their respective successes can demonstrate the possibility to challenge even such developed securitization markets like the Netherlands or Luxembourg.

Securitization market development has its uses even outside the highly specialized industry. It brings further integration of the local market into the global financial system which again brings transparency, stability, and discipline. Also, securitization industry enhances GDP growth and creates new highly qualified jobs. However, a convenient development of securitization activities needs understanding, foresight, and vision.

To provide the reader with at least some comparative material, we present a short overview of the securitization market in Ireland. However, a detailed analysis of all the aspects brought forward by our conceptual framework to compare the drivers and drawbacks to securitization markets' development in other European countries is beyond the scope of this work. Still, we have enough confidence to put forth at least a simplified comparison of the positions of three European countries in the respective domains related to securitization markets. The individual labels given by the following table are result of our expert opinion

only, and therefore should not be taken for granted. Estimates for Ireland, Germany, and Spain are based on an analysis similar to the one presented above, although limited just for the purposes of creation of the table.

Table 14 – Securitization market factor conditions (comparison)

	Czech Republic	Ireland	Spain	Germany
Size of Population	Medium	Medium	Strong	Strong
Growth and Inflationary Pressures	Medium	Strong	Medium	Weak
Competitive Capital Markets	Weak	Medium	Strong	Strong
Competition in Consumer Finance	Medium	Medium	Medium	Medium
Knowledge Economy	Medium	Strong	Medium	Strong
Banking Sector Strength	Medium	Strong	Medium	Strong
Strategic Motivation	Medium	Strong	Strong	Medium
Government Sponsorship	Weak	Strong	Strong	Strong
Legal and Regulatory Environment	Medium	Strong	Strong	Medium
Currency Issues	Medium	Strong	Strong	Strong

Source: Turek, 2006.

Ireland: Example of Good Practice

During the nineties, Ireland has built a reputation of a friendly and innovative jurisdiction for doing business. The same holds true for its securitization industry. Nowadays, Ireland is a location of choice for domiciling securitization SPVs. Heretofore, a range of securitization transactions have been concluded, even though the volumes do not reach the peaks of European securitization markets.

We have good reasons to believe that the recent development of the market is due mainly to the new legislative framework. According to the International Financial Law Review Yearbook 2003, the Irish government “has shown a continuing willingness to consult with the finance industry and, when necessary, to revisit and update domestic legislation.” This new framework introduced in 2003 is said to give certainty to promoters and investors alike. Therefore, transactions which traditionally might have gone to jurisdictions such as the U.K. or the Netherlands, are now capable of being done through Irish SPVs. A strong point in this issue is the certainty of the tax treatment as the legislation grants an exemption from withholding tax on interest payable by the SPV where the recipient is resident in the EU or in a country with which Ireland has a relevant tax treaty. Also, we should stress the fact that the Irish legislation was deliberately amended in a way to attract foreign players to use Irish SPVs for their own “cross-border” securitization purposes.

First securitization legislation in Ireland was introduced as early as in 1991. However, this legislation treated exclusively domestic mortgage-backed transactions. Further

amendments dating from the nineties broadened the scope of applicable underlying assets and have already dealt with specialized issues like credit enhancement or income taxation. In 2001, the Asset Covered Securities Act was enacted. This act facilitated establishing Irish SPVs. Moreover, according to market insiders, the insolvency issues were treated in a very clear way resulting in higher degree of protection for the purchasers of the underlying assets and thus in better rating levels enhancing investor demand.

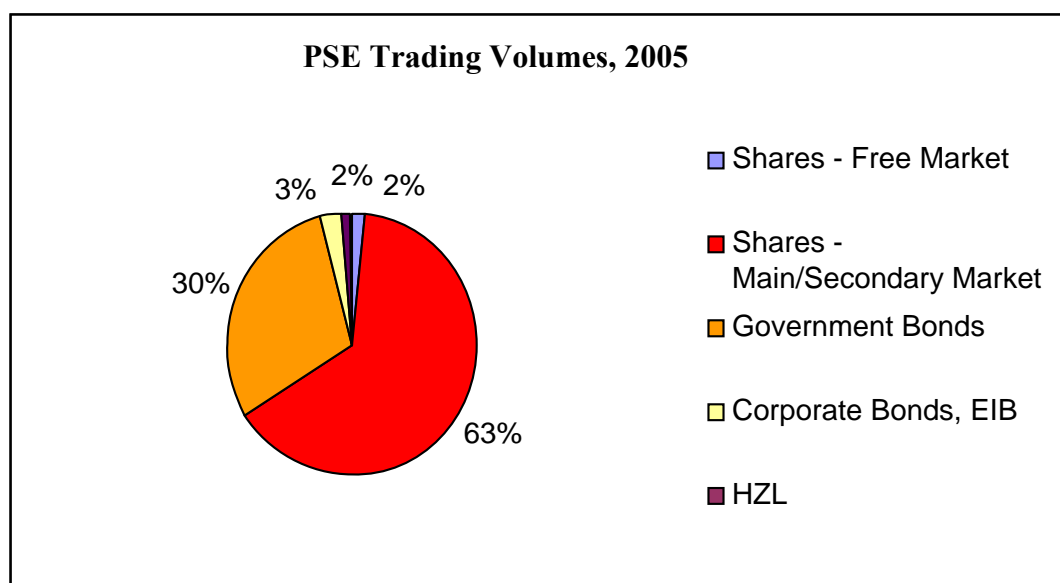
Another advantage of Irish securitization industry is its marked interconnection with the local capital market. A listing on the Irish Stock Exchange is advisable for an Irish SPV as it means that many of the requirements laid down by Irish securities laws are disapplied. A listing on an EU stock exchange can also provide a valuable marketing tool, particularly when marketing to certain categories of investors, such as European institutions. According to the local market participants, the time from submission of an application to listing on the ISE can take as little as two weeks.

E. ASSET POOL IDENTIFICATION

Normally, there are dozens of steps to be taken in the process of origination of a securitization deal. Limited by the scope of our paper, we will focus only on one of the steps most relevant for the emergence of a country market – asset pool identification. To make our analysis complete, we shall also make a short comment on the complementary issue, investor demand.

As of the writing of this text, there were only 135 securities publicly traded on the biggest Czech market, Prague Stock Exchange: 39 stocks and 96 bonds. And only 35 of these were traded in the main – and most liquid – segment of the market. Since 2001, the PSE was steadily growing both in terms of the traded volumes and the aggregate market capitalization. In 2005, trading in ordinary stocks represented more than 65% of the market volumes, the rest being mostly government bonds with approximately 30% share. Out of the remaining 5%, 2% was trading in HZL, Czech version of RMBS.

Fig. 4 – Pratur Stock Exchange – trading volumes



Source: Prague Stock Exchange, 2006.

HZL – Czech Residential Mortgage-Based Securities

The debenture bonds backed by domestic residential mortgages (HZL) are the only viable form of securitization in the Czech Republic to date. Their issuance is governed by the Capital Market Act and other legal norms. The notes are issued by mortgage banks licensed by state, enjoying thus an implied credit enhancement. Even though we cannot speak about a “true-sale” transaction, the originating bank has a senior lien to the real estate should an underlying mortgage be not redeemed. In case the originator goes bankrupt, the underlying assets backing the note are by law exempted from the bankruptcy estate. Even though the biggest part of the notes is distributed to institutional investors, a small portion of the total amount is available also to the retail investors.¹² Their exceptional status is due mainly to the fact that the HZL are the only domestic securities exempt from tax without reference to any time test. Their attractiveness is further enhanced by their relatively high liquidity. They are traded on the open market of the Prague Stock Exchange and on the RM-System. HZL are issued in tranches with nominal volumes of EUR10–100 million. The coupons are relatively high, amounting to 1–2 percentage points over PRIBOR exceeding thus in the long run inflation rates without exposing the investor to any significant risk except for the interest rate risk if the notes are not held to maturity.

¹² Approximately 10% of the HZL is held by households or foreigners according to some estimates.

Segment Potential for Asset-Backed Issuance

In order to identify potential issuers on the Czech market, we have to look for candidates having at least the following three basic prerequisites: 1) acceptable asset collateral; 2) acceptable credit profile; 3) motivation to securitize. The quality of assets is an aspect absolutely essential for any further consideration of a potential securitization deal. However, the “absolute” credit quality is not what really matters. Investors should claim reliable identification of the credit profile in the first place. As extensive time-series data on default frequency and loss experience as possible, that would enable them to seize reasonably the implicit loss probability distributions, are a precondition for success. Lack of data will necessarily result in less attractive pricing or unwanted over-sizing of the equity and mezzanine tranches.

As we have already indicated, there is a significant requirement on the asset pool size. Even though smaller transactions may very well materialize in a developed market environment, individual pools comprising assets worth at least EUR/USD100 million are likely to win their way much easier. Also, as some surveys make evident, amount of loans outstanding from bank securitizations is significantly positively correlated with size of the issuer. This might indicate that in general, securitization activity should be dominated by larger institutions (Firla-Cuchra and Jenkinson, 2005). Still, in spite of these facts, we believe that transactions exceeding EUR1,000 million are probably not going to be seen very often in a small, nascent securitization market like the Czech Republic.

The most important pools of securitizable assets complying with the first two of the criteria mentioned above (i.e., acceptable collateral / credit profile) are certainly to be found on the books of domestic and foreign banks. For example, amounts of loans extended to small and medium enterprises reached EUR1,180 million for Česká spořitelna and EUR935 million for ČSOB in 2005, amounting thus to 13% and 18% of their total portfolios, respectively, and increasing annually by 28–29% in both cases. However, the third criterion is a strong holdout here. As follows from our analysis of securitization motives provided in the first part, riskier firms should securitize more, *ceteris paribus*. In line with that, according to the study mentioned above (Karaoglu, 2005), banks taking part in first-time securitizations have the lowest capital ratios. This illustrates the more-or-less intuitive fact that first-time securitizations require above-average incentives for the issuers to expend high structuring and other costs. At present, Czech banks are far from facing funding scarcity, much less a marked credit crunch. Also, major banks enjoy relatively high credit ratings and overall confidence.

Czech banking sector is rather consolidated, with more potential targets than greedy predators at that. Therefore, the motivation of banks to securitize their own assets is not substantial at the moment. Nonetheless, increasing demand for emerging-markets assets with specific risk profiles and other characteristics may sooner or later trigger an important CLN/CDO activity. Even though banks are most probable providers of such specialized products, niche providers like investment boutiques or hedge funds as well may have their own word to say in such an investor- or arbitrage-driven environment. There are, however, high administrative costs and important due diligence issues to get round.

On that account, we turn our attention to other potential non-bank originators. Looking over the above presented classification of ABS issues by collateral, we may seize several asset categories that could be of interest for local players and for emerging markets-oriented investors. An obvious example would be credit-card receivables – an asset class that has been already leveraged on by Home Credit, a subsidiary of Česká pojišťovna. As what regards local potential of IP securitization, we have to acknowledge that despite the specificity and high information sensitivity of intangible assets available, the volume of suitable collateral remains limited. To get a notion of the size of available IP assets that are both clearly delimited and marketable, consider for example the successful TV format “VyVolení”: total capitalized costs of the format are estimated at EUR6 million for the first series and EUR3 million for the second respectively. Its merchandising revenues were estimated at a derisory amount of EUR150,000. Similarly, top Czech movie productions are able to generate some EUR2 million per successful title and therefore are not very likely to be securitized. Zentiva, Czech leader in pharmaceuticals, could serve as another example. Its balance of intangible assets such as patents and licenses is less than EUR10 million. Despite their size irrelevance, we believe that alternative assets like IP, franchises, etc., could be made available to international investors through multi-class conduit programs.

As we have noted in the chapter on European multi-seller ABCP programs, the critical mass of dedicated assets is as low as some EUR40 million. A typical ABCP program is a holding company owned by an offshore charity trust. The holding owns several purchase companies founded for each separate seller. The actual refinancing takes place over one or more issuing entities, each for a major nominal currency (e.g., Euro and US market), leading to better funding conditions due to possible arbitrage opportunities. Historically, the big

ABCP programs¹³ have provided funds at approximately LIBOR flat after inclusion of dealer and hedge costs.

Also, similar structures allow for proportional distribution of the management and structuring costs to the purchase companies and thus to the respective sellers. In sophisticated ABCP programs, each seller has the option to sell its assets either to a specific purchase company or to a multi-purchase entity. Moreover, the management company usually provides for sufficient credit enhancement up to some 20% of the volume and for relevant liquidity facility resulting in important economies of scale. The commercial papers can eventually be issued in another currency that is immediately hedged with an FX swap into the assets currency. Several techniques like country default swaps, etc., may be used to “pierce” the country ceiling in case of distinct political risk (e.g., Russia).

It is more than probable that European ABCP program managers will sooner or later try to set up locally oriented purchase structures to channel the asset-backed streams of cash from possible refinancing operations when traditional funding gets too expensive. Even though there are no such pressures at the moment, the relatively high entry barriers to the industry command the big players to seize the market as soon as possible.

Although ABCP conduit programs may draw on wide range of assets or future flows from different asset classes and industries, they might not be an ideal solution for all issuers. In particular, bigger issuers with stronger branding and disclosure position and long-term funding needs will presumably prefer structured ABS bond issuance to short-term commercial paper financing. And indeed, there are several asset classes with sufficient volume potential for such issuance in the Czech Republic. These include trade and other receivables, commercial mortgages, equipment (i.e., aircraft, fleet, machinery, etc.) leases, consumer finance, and possibly student loans and PPP projects. On developed markets, all these are preferred asset classes with differentiated credit profiles and distinguished track records. The so-called human capital securitizations, for example, leverage on big volumes and predictable cash flows of the pools. Abroad, they may take the form of HCCs (Human Capital Contracts), a recently developed instrument to finance higher education of students (Maršíková, 2004). Should tuition fees were introduced in the Czech Republic, origination of some EUR100 million of securitizable assets could be expected.

¹³ Such as Scaldis Capital Ltd., Compass Securitisation, Silver Tower Funding Ltd., Tulip Funding Corp., or Mont Blanc Capital Corp.

PPP projects are starting to be exploited in the Czech Republic as well, including large-scale public infrastructure schemes with well-defined future flows such as tolls, freeways, railways, sport and housing facilities, etc. One of the first PPP ventures to be launched in the Czech Republic, the Rapotice Penitentiary construction and operation, is a good example of a securitizable project with contractual government funding reaching EUR40 million.

Securitization Potential in Trade Receivables

For the purposes of our study, we decided to look in closer detail to just one of the asset classes mentioned above. To assess the potential of Czech non-bank securitization activity, we shall scrutinize the most straightforward collateral of the companies to back ABS notes and commercial paper issuance: trade receivables. Accounts receivable are an important item disclosed explicitly in most publicly available financial statements, albeit often in the most sober way possible. For the purpose of the analysis, we decided to cover the top Czech companies as measured by volumes of sales in 2004. For companies that make public their detailed financial results we provide concrete numbers. As this is not always the case, our summary table does not include precise numbers for big privately held companies like OKD. We also lack data for many of the companies that would normally be included in the chart but which are local subsidiaries of multinational corporations like Siemens or Skanska. Yet, these companies represent substantial portions of extended credit in many important segments or industries. For example, Ahold, Globus and Penny Market represent big retailers; Shell, OMV, ConocoPhillips, and Agip stand for suppliers of propellants. As we were not able to obtain relevant detailed balance-sheet data on these companies, we have used the data available for the domestic companies to estimate probable amounts of trade receivables on the books of these firms. Even though these estimates may not exactly match the actual individual balances, they provide a relatively accurate notion of the industry balance structure as a whole.¹⁴ The balance amounts of short-term trade receivables are also shown converted to Euro at official year-end exchange rates of CZK30.465.

¹⁴ The estimates were obtained by simple linear regression using the ordinary least squares (OLS) method. For the purpose, we have estimated a log-log model with intercept ($n = 26$). The coefficient of determination is satisfactory for the given specification, as is the slope t-statistic, showing statistical significance of the estimated β ($r^2 = 0.39$, $t_{\beta} = 3.89$). All values based on any estimates are highlighted in the table.

Table 15 – Securitization potential in trade receivables (Czech Republic)

Company	Sector	Sales (CZK '000)	Total Assets (CZK '000)	Receivables (CZK '000)	Receivables Turnover	Collection Period	Volume (EUR m)
ŠKODAAUTO, a. s.	Automobile	153,550,000	71,837,000	5,250,301	29.25	12.48	172
ČEZ, a. s.	Energy	100,164,678	280,815,027	5,305,740	18.88	19.33	174
UNIPETROL, a. s.	Chemicals	85,824,035	70,774,874	1,678,254	51.14	7.14	55
ČESKÝ TELECOM, a. s.	Telecoms	62,141,000	134,203,000	4,543,932	13.68	26.69	149
RWE Transgas, a. s.	Energy	57,839,047	49,319,519	3,639,230	15.89	22.97	119
OKD, a. s.	Raw materials	55,908,313	51,135,590	3,844,021	N/A	N/A	126
Mittal Steel Ostrava a. s.	Metallurgy	53,277,499	40,573,087	7,263,646	7.33	49.76	238
AGROFERT a. s.	Agriculture	51,232,743	36,278,376	8,828,858	5.80	62.90	290
MORAVIASTEEL a. s.	Metallurgy	51,027,959	11,701,644	5,271,077	9.68	37.70	173
Siemens Group ČR	Electronics	48,329,611	21,422,748	3,498,127	N/A	N/A	115
FOXCONN CZ s. r. o.	Electronics	46,816,885	14,077,323	3,426,856	N/A	N/A	112
České dráhy, a. s.	Transport	36,699,373	47,301,125	2,887,328	12.71	28.72	95
MAKRO ČR s. r. o.	Retailer	35,181,853	10,587,416	5,130,226	6.86	53.22	168
ČEPRO, a. s.	Chemicals	34,758,733	10,306,233	1,438,544	24.16	15.11	47
AHOLD CR, a. s.	Retailer	31,414,013	N/A	2,646,868	N/A	N/A	87
METALIMEX, a. s.	Metallurgy	29,742,111	5,383,034	3,050,964	9.75	37.44	100
Skanska CZ a. s.	Construction	29,641,500	21,580,500	2,549,208	N/A	N/A	84
Eurotel Praha, spol. s r. o.	Telecoms	29,369,400	31,742,040	2,534,036	N/A	N/A	83
Třinecké železárny, a. s.	Metallurgy	29,274,579	19,511,136	2,331,744	12.55	29.07	77
Shell CR, a. s.	Propellants	27,833,794	7,533,808	2,447,462	N/A	N/A	80
BOSCH Group ČR	Automobile	27,350,000	N/A	2,419,841	N/A	N/A	79
T-Mobile CR, a. s.	Telecoms	26,051,438	30,829,148	2,123,639	12.27	29.75	70
OMV ČR, s. r. o.	Propellants	23,850,424	5,394,923	2,214,611	N/A	N/A	73
Slovnaft ČR, spol. s r. o.	Propellants	23,838,466	2,910,172	2,213,892	N/A	N/A	73
Agrofert Holding, a. s.	Agriculture	20,891,224	9,083,374	2,649,235	7.89	46.29	87
Panasonic AVC Net. CZ	Electronics	20,703,267	6,787,246	2,020,767	N/A	N/A	66
FIC CZ s. r. o.	Electronics	20,664,949	3,962,201	2,018,345	N/A	N/A	66
Metrostav a. s.	Construction	19,578,500	12,025,802	3,324,681	5.89	61.98	109
Ferona, a. s.	Metallurgy	19,456,747	10,264,496	2,223,102	8.75	41.70	73
Agip ČR, s. r. o.	Propellants	18,633,559	5,778,662	1,887,586	N/A	N/A	62
SSŽ, a. s.	Construction	18,316,867	10,219,136	2,970,297	6.17	59.19	97
České aerolinie a. s.	Transport	17,965,315	10,713,915	2,138,812	8.40	43.45	70
BOSCH DIESEL s. r. o.	Automobile	17,161,869	17,604,835	1,789,690	N/A	N/A	59
Globus ČR, k. s.	Retailer	16,540,065	3,126,928	1,747,445	N/A	N/A	57
Česká pošta, s. p.	Telecoms	15,893,785	16,591,587	534,704	29.72	12.28	18
ConocoPhillips CR s. r. o.	Propellants	15,631,012	3,424,337	1,684,659	N/A	N/A	55
Johnson Controls, k. s.	Automobile	14,684,196	6,289,513	1,617,880	N/A	N/A	53
STRABAG a. s.	Construction	14,465,373	9,057,633	1,602,233	N/A	N/A	53
Agropol Group, a. s.	Agriculture	14,279,360	8,064,997	1,588,866	N/A	N/A	52
Penny Market s. r. o.	Retailer	14,018,351	3,627,963	1,570,006	N/A	N/A	52
JMP, a. s.	Energy	13,603,554	14,733,542	1,539,776	N/A	N/A	51
Vitkovice Steel, a. s.	Metallurgy	13,528,505	7,829,821	1,390,343	9.73	37.51	46
Oskar Mobil a. s.	Telecoms	13,429,469	20,885,323	1,583,342	8.48	43.03	52
Philip Morris ČR a. s.	Food	13,138,823	17,514,032	1,505,518	N/A	N/A	49
Glaverbel Czech a. s.	Glass	13,109,510	14,169,265	1,785,483	7.34	49.71	59
Plzeňský Prazdroj, a. s.	Food	11,926,465	15,034,951	772,540	15.44	23.64	25
Pražská energetika, a. s.	Energy	11,742,110	13,549,645	375,815	31.24	11.68	12
Import VW Group s. r. o.	Automobile	11,585,985	3,017,548	1,387,804	N/A	N/A	46
Česká lékárnická, a. s.	Pharmaceuticals	11,557,566	4,537,892	1,385,599	N/A	N/A	45
Zentiva, a. s.	Pharmaceuticals	10,673,801	9,114,529	3,098,352	3.44	105.95	102

Source: Czech TOP100, Turek, 2006.

To quantify the effectiveness of the sample companies in extending credit and collecting debt, we provide receivables turnover ratio defined as net sales divided by year-end balances of trade receivables¹⁵:

$$\text{Receivables Turnover} = \frac{\text{Net Sales}}{\text{Trade Receivables}}$$

Sometimes, literature has recourse to the inverse receivables ratio defined as receivables divided by sales. In our form, a higher ratio implies either that the company operates on a cash basis or that its extension of credit and collection of accounts receivable is efficient. A lower ratio on the contrary implies the company should reassess its credit policies. We do not provide the ratios for companies with estimated amounts of trade receivables as such ratios would be fully implied by sales and therefore could not be used in any meaningful way to assess the individual characteristics of the companies they should represent. For better notion of the respective credit policies, we also include the collection period:

$$\text{Collection Period} = \frac{365}{\text{Receivables Turnover}}$$

Three basic conclusions may be drawn from the table. Firstly, the number of domestic non-bank companies with trade receivable balances important enough to encourage single-seller securitization is rather limited. There are at most some 8–12 companies with the balance exceeding EUR120 million. Secondly, there are several sectors or industries that feature significant pools of potentially homogeneous trade receivables, providing thus for attractive opportunities in the multi-seller segment of securitization business. These include mainly automobile industry, fabrication and distribution of propellants, metallurgy, housing and construction, big retailers, energy suppliers, and telecommunication providers. The number of Czech companies with trade receivable balances over EUR40 is considerable. Thirdly, among the top 50 corporations that publish their financial results, there are few companies with atypically long cash collection periods that could possibly draw significant benefits from a customized securitization program. These are Zentiva, Agrofert, Metrostav, and SSŽ.

Actually, the latter two have more in common than that. We consider that a good reason to present them as an illustration of a possible and viable multi-seller securitization structure. But firstly, we introduce the case of the company with the biggest amount of trade

¹⁵ Note that we have replaced the usual accounts receivable figure with the amount of outstanding trade receivables considered more appropriate in this respect. Where possible, we included only short-term trade receivables. Note also that in our adjusted formula we use overall sales, not just credit sales.

receivables outstanding on its book and a promising potential issuer: Škoda Auto. In the illustration, we try to emphasize the company's specific attributes that make it more probable a user of securitization. However, this in no way stands for an actual business recommendation or advice and should not be considered as such. Zentiva or ČEZ, for example, would be similarly apposite illustrative cases of companies featuring strong growth, strategic motivation, large share of business abroad, sufficiently large and homogenized customer bases, documented historically low default rates, strong investor relations, implemented SOX processes, etc. Also, securitization of trade receivables is not the only option for VW subsidiaries how to participate in ABS or ABCP origination. In 2005, ŠkoFIN, a Volkswagen's Czech leasing subsidiary and the third biggest leasing company on the Czech market according to the volume of new contracts, has extended new auto leases in total amount of EUR350 million, or two times more the trade receivable balance of its affiliated company Škoda Auto.

F. MODEL TRANSACTIONS

Example No. 1: Škoda Auto, a.s.

Škoda Auto is the biggest Czech company as measured by sales and third biggest company as measured by both number of employees and total assets. With more than 492,000 cars sold in 2005, Škoda Auto achieved new records in numbers of cars supplied to its end customers. According to a customer-satisfaction study, Škoda Auto ranks among top five European car manufacturers. With exports representing approximately 8.2% of the total Czech exports, the company remains to be the Czech number-one exporter. Last but not least, Škoda Auto's parent company, Volkswagen AG, has already participated in several asset-backed transactions.

Škoda Auto had more than EUR170 million short-term trade receivables due to third parties outstanding as at the year-end of 2004 and more than EUR100 as of 2005. Visibly, the company has the ability to continue to generate assets of consistent quality. Also, the management of the company could provide possible structuring partners with the required monthly data on defaults and payments past due for at least 5 most recent years. Very probably, the company could select a sizeable portfolio with maximum concentration of 2–3% of the pool. Moreover, it is very probable that Škoda Auto has relatively homogeneous underwriting guidelines. With average cash collection period of 12.5 days, we may believe

that the company has implemented well-designed credit policies and processes. Provisions for impairment of trade receivables were already accounted for and do not exceed 10% of the nominal balance outstanding. Also, Škoda Auto has some EUR440 million of inventory, out of which some EUR180 million in cars ready for sale.

For short-term funding, Škoda Auto uses mainly loans from companies included in the VW group. It has also outstanding medium-term bonds in amount of EUR170 million funded at 6M PRIBOR +14/22 b.p. as well as some short-term credit facilities. Also, Škoda Auto already uses its own factoring subsidiary to better finance its working capital. The holding company had outstanding liabilities from factoring of approximately EUR230 million as of 31 December 2004 and EUR65 million as of 31 December 2005. In the last five years, however, the amount of factoring fees paid by the company was steadily declining. Škoda Auto uses currency and interest rate swaps. Currently, Škoda Auto has enough liquidity to finance its capital expenditures, getting short-term funds at 2.39% according to the management statements. However, this can change very quickly with the car industry getting deeper into the investment cycle and with the rising interest rates.

A possible underlying portfolio could initially consist of, for example, 9,950 trade receivables, representing an outstanding principal balance of EUR100 million with an average balance of EUR10,045. Approximately 65% of the portfolio would be made up of trade receivables due from third parties, with the remainder being receivables due from related parties within the VW group. The receivables would be due in 30–90 days. The transaction would have a revolving structure that could result in change in the portfolio composition over time. However, new additions would have to comply with strictly specified eligibility criteria. The outstanding pool would consist of receivables of no less than 5,000 debtors at any one time.

In the first phase, collections would be used to purchase further receivables. In the second phase, they would be used to repay investors. In case some of the embedded structural safeguards were breached (e.g. downgrade of seller's credit rating, a shortfall on more than two consecutive monthly purchase dates, SPV unable to maintain the credit enhancement, etc.), no new assets would be purchased and such an event would immediately trigger the second phase.

The issue could consist of two separate tranches with distinct risk characteristics. Initial credit enhancement for the Class A notes would be 5% and would comprise of the 4% subordination of the Class B notes and a reserve fund sized at 1%. Initial credit enhancement

for the Class B notes would be 1%. The reserve fund would be funded to 1% at closing of the transaction, building to a target reserve of 1.5% from excess spread. When the reserve fund reaches its target, the credit enhancement levels for the Class A and B notes would be 5.5% and 1.5% respectively. If certain loss and delinquency triggers were breached, the reserve fund might be further built from excess spread.

At closing, the issuer would enter into a swap agreement with a major bank to mitigate risks arising from the mismatches between the fixed rate payable on the leases and the three-month LIBOR payable on the notes.

Example No. 2: Building Industry Conduit

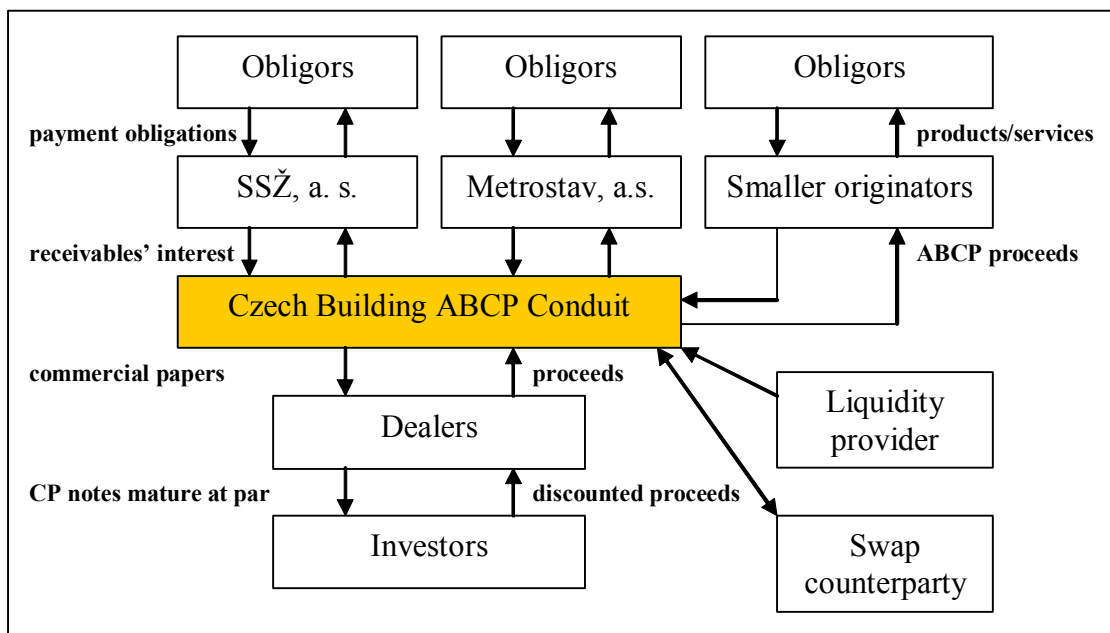
At a glance into the above table, we have noticed several companies with relatively low trade receivables turnover and consecutively high cash collection periods. Moreover, two of them were representatives of a specific industry: building and construction. After a short review, we consider Metrostav and SSŽ as very good examples of possible sellers in an ABCP multi-seller structure. For further enhancement of the imaginary pool, we shall consider the participation of other smaller construction companies with similar operation profiles. ŽS Brno would be an example of such a company. ŽS Brno is active mainly in railways, road and engineering construction.

Metrostav, Czech leader in building and construction, is part of a multi-national concern DDM Group. Originally founded for the purpose of Prague metro construction, the company is now a general-purpose construction enterprise. Since 1995, besides being a general contractor, Metrostav develops projects on its own. Recently, the company makes clear its strong interest in the PPP sector. Its wide portfolio of references includes driving and tunneling, reconstruction of bridges, building of factory halls, propellant reservoirs, etc. Totally, Metrostav participated in more than 200 distinct projects in 2004. Its overall market share in the construction segment is estimated at more than 5%.

SSŽ is Czech subsidiary of a French transport infrastructure leader Eurovia, itself part of a construction conglomerate Vinci. Its main specialization is road and freeway construction, representing approximately 60% of the contract portfolio, another 25% being construction of railroads, tramway infrastructure, and bridges. As what regards the structure of SSŽ' purchasers, Czech government and government agencies stand for about 75% of the amounts contracted. With municipalities included, the public sector represents over 90% of the concluded contracts.

In 2004, Metrostav, SSŽ, and ŽS Brno had trade receivables in amounts of EUR109 million, EUR97 million and EUR63 million respectively. The amounts represent approximately one third of the assets held by the companies. In total, the potential of their trade receivables pool amounts to some EUR250 million. Even though an imaginary trade receivables portfolio will be certainly much less granular in the construction segment than in sectors like energy supplies to households or automobile production, its main strengths lie in the more-than-sound structure of purchasers and the consecutive exceptional marketability to the end investors.

Fig. 5 - Building Industry ABCP Conduit



Source: Turek, 2006

The structure would have both individual and program-wide credit enhancement as well as a common liquidity facility and swap structure. As in the previous example, in the revolving phase of the transaction (e.g., 10 years) collections would be used to purchase further receivables. In the second – or “exit” – phase, they would be used to repay investors. To justify the case, we have to emphasize that without having recourse to a securitization structure such as the one depicted above, neither of the mentioned companies would have access to an AAA-rated issue.

CONCLUSION

Securitization is a thriving and ever more establishing species in the jungle of contemporary financial environment. Is the Czech market prepared to rise to the challenges it brings along and to draw on the benefits it can provide? We believe that our comparative analysis of the conditioning factors supports enough our hypothesis that asset securitization is indeed a viable financing alternative for Czech banks and corporations. However, summarizing the reasoning presented above, we would emphasize two major barriers for the development of asset securitization in the Czech Republic.

The first of these is a matter of macroeconomic development and may be considered impermanent. It is the relatively loose money market with sufficient supply of funds to firms provided mostly in form of cheap short-term loans. However, should interest rates soar in the future, securitization could become a viable alternative to classical financing, at least for banks or consumer credit providers like leasing companies and other blue chip corporations.

The second barrier is much more delicate in its nature: Czech securitization efforts lack any explicit government sponsorship so important for gaining a competitive international position. Yet, such a sponsorship would require considerable political bravery based on detailed knowledge of the topic. A credible policy drift would have to be built on a wide-ranging consensus of policy experts and expert public including but not limited to bankers and jurists. To bolster the securitization industry as such, a platform representing both possible issuers and originators would be an excellent counterparty to such debate. A formal securitization platform – in a form of a professional association for example – would be a transparent vehicle to aggregate and communicate common interests of these groups, providing thus for the requested credibility and expertise.

The fundamental mission of the government in sponsoring a transparent market development would consist in providing trustworthy legal framework for securitization. This would include explicit assurance in the so far vague matters like bankruptcy-remoteness feasibility, future flows cession, etc. Yet, best practices reveal that passage of a particular Securitization Act or Capital Market Act amendment – explicitly introducing compliant SPVs, securitization funds, or even securitization fund management companies – could be a better way to achieve a transparent securitization environment. Such a regulation could encompass further provisions on specific tax treatment of securitization proceedings, etc. Conveniently, such an umbrella legislation could be used to put PPP, SME, or student loan

securitizations on a par with HZL. We perceive such institutional anchorage as a better means of support to securitization than an *ad hoc* support to certain entities in form of specific credit enhancement provided by public agencies. Such gratuitous favoritism would be always open to legitimate doubt.

The analysis also brought us closer to a notion of probable values of the deal-related variables to characterize the Czech market in the near future. The target volumes of individual transactions may be expected to range mostly from EUR80 million to EUR500 million. A typical issue should have 2 to 3 tranches, including an AAA “super-senior” tranche and a significantly sized FLP. Yet, we have demonstrated that the number of potential non-bank issuers possessing of required volumes of securitizable assets, although not completely negligible, remains fairly limited. Therefore, we believe that establishing a conduit practice pooling assets from several CEE countries, for example, is a necessity. Similar transactions may prove challenging to structure so as to fairly distribute the risks, but they may, if successful, rouse the securitization market as a competitive alternative to the loan markets. This market feature, characteristic to the Czech economy, should be also reflected in the potential legislation.

As what regards the identification of possible issuers, we conclude that in addition to the domestic banks, and in particular the smaller ones with outstanding growth characteristics, there are many up-and-coming securitization candidates among the big innovative companies with international exposure. According to the inference presented in the paper, Czech securitization should be mainly product-driven, based on asset specificity and strategic motivation of the potential issuers. Also, we point out that the signaling and marketing aspects of securitization should not be neglected in the nascent market.

We believe that both the descriptive and the empirical parts of the thesis helped to clarify the opportunities and challenges presented by the current situation in the Czech structured finance market. However we are well aware of the fact that only the future development of the said market can truly vindicate what we have struggled to make evident in the course of our analysis.

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LIST OF COMMONLY USED ABBREVIATIONS

ABCP – Asset-Backed Commercial Paper

ABS – Asset-Backed Security

CAS – Czech Accounting Standards

CBO – Collateralized Bond Obligations

CDO – Collateralized Debt Obligations

CEE – Central and Eastern Europe

CFA – Chartered Financial Analyst

CFO – Collateralized Fund Obligations

CLO – Collateralized Loan Obligation

CMBS – Commercial Mortgage-Backed Security

ČNB – Czech National Bank

EBRD – European Bank for Reconstruction and Development

EIB – European Investment Bank

EIF – European Investment Fund

EL – Expected Loss

EURIBOR – Euro Interbank Offered Rate

FLP – First Loss Piece

FTPYME – Fondos de Titulización de Pequeñas y Medias Empresas

FX – Foreign Exchange

HCC – Human Capital Contracts

HZL – Hypoteční zástavní list

IAS – International Accounting Standard

IFR – International Financing Review

IFRS – International Financial Reporting Standards

IO – Interest-Only

IP – Intellectual Property

IPB – Investiční a poštovní banka

IPO – Initial Public Offering

IRBA – Internal Risk Based Approach
ISE – Ireland Stock Exchange
KCP – Czech Securities Commission
LIBOR – London Interbank Offered Rate
LLC – Limited Liability Company
MBS – Mortgage-Backed Security
PD – Probability of Default
PO – Principal-Only
PPP – Public Private Partnership
PRIBOR – Prague Interbank Offered Rate
PSE – Prague Stock Exchange
RMBS – Residential Mortgage-Backed Security
SGFT – Sociedad Gestora de Fondos de Titulización
SME – Small and Medium Enterprises
SOX – Sarbanes-Oxley Act
SPE – Special Purpose Entity
SPV – Special Purpose Vehicle
WACC – Weighted Average Cost of Capital
WBS – Whole-Business Securitization

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