# DEVELOPMENT OF RISK PAYMENT INDEX IN SLOVAKIA COMPARING WITH CHOSEN EU COUNTRIES

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**Abstract**: Management of receivables must have in any business much attention; because if company provides business credit, it must consider the risk that the loan will not be repaid. Period of economic and financial crisis brings a deepening of payments problems of indiscipline behavior, resulting into insolvency. In the present article there is analyzed development of consumers', enterprises and public sector solvency in Slovakia and subsequently compared with developments in selected European countries. Results show that from 2008 to 2013 there was deterioration of payment index development in most countries. There were also investigated main causes of late payments, mainly delays and financial difficulties of the debtor. Due to the mentioned development companies solved the situation by collective redundancies, which can be regarded as not very positive fact.

Key words: payment ability, index of payment, consumer, company, industry, Slovakia

#### Introduction

Due to the proper operation of the company and due to its financial health there is important liabilities and receivables have been collected and paid when due. Otherwise, this may mean a decrease of firm's solvency and this situation would negatively reflect in financial indicators. Management of receivables needs to have an attention in each undertaking. In the frame of the issue company must solve many serious problems. If he wants, the value of receivables is as low as possible, it may decide not to grant business credit, but there is a risk of losing customers. On the other hand, if the firm provides business credit, it must consider risk that the loan will not be repaid. If an enterprise has a high state of debts, but not sufficient funds to pay their obligations, it may fall in secondary insolvency. Management of receivables is also referred to as credit management and it should assist in ensuring the liquidity of receivables and thus ensuring solvency. It was created in order to prevent the occurrence of overdue receivables. Its essence is to collect more information on the current as well as prospective buyers, evaluating the risks associated with the customer and then applying of reasonable business terms during granting of business credit.

## Literature Review

Risk management is at the present same time precious tools for communication during handling with not controllable risks and during renewing of business stability, business image and firm's reputation, and by this way this will contribute to the stability of relationships with consumers and suppliers and also to the



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stability of the firm at the market (Seňová and Čulková, 2011). Risk identification must be comprehensive by analyzing all the risk factors (Burlet, et.al, 2015; Man et al, 2015). Risk management can therefore save great volume of finances for the firm in case of negative risk events (Ennouri, 2015). Kiseľáková et.al (2015) analyzed business risks with focus on financial risks and created risk models, which solve the impact of risks on the enterprise financial performance and can minimize, diversify and predict risks. Many regulators, rating agencies, executives and academics have advocated a new approach to risk management. Enterprise Risk Management (ERM) proposes the integrated management of all the risks an organization faces, which inherently requires alignment of risk management with corporate governance and strategy (Bromiley, et.al, 2015).

There is some relationship between risk attitude and ability to pay, when most people are risk averse. One of such risks is the need to respond to the increasing problem of the payment indiscipline ending with insolvency, since status of difficulty of an enterprise is closely related to solvency, this concept reflecting its ability to meet their payment obligations to the business partners (Hlaciuc, 2008). Possible response to this problem is the consistent application of the principles of credit management (Mihalčová and Hvastová, 2008). Brav et al., (2005) say payout policies have little impact on their investor clientele. Hamlin (2007) mentions some reasons for the hesitation of some people to file insurance claims. Heidi (2013) also suggested collecting money up front, since payment up front demonstrates the ability of clients to pay and investment in his/her case. More than half of European countries reported increased credit risk and one third of these countries are considered as countries with critical risk profile. Only four out of 31 countries reported a decrease in losses from bad debts Prior to the sovereign debt crisis, investors appear to focus mainly on the global risk-aversion factors (Patra et al., 2014). Companies are increasingly faced with the impact of recession on the markets, liquidity and their ability to grow and find funds for investment in the future. There is more differentiation of credit risks in Eastern Europe (Emsden et al., 2009). Total development of loss of irrecoverable receivables in Europe in percentage is illustrated at Figure 1.

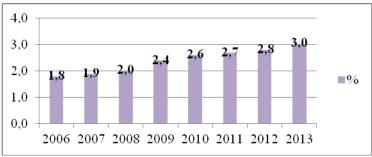


Figure 1. Loss of irrecoverable receivables in Europe (%)

#### Methodology

The aim of the paper is to analyze losses from irrecoverable receivables in Slovakia and compare it with development in Europe and by this way to find out main obstacles and problems in payment process. Data had been collected from Intrum Justitia European Payment Index (EPI) that measures risk of doing business in the European economies, by surveying businesses, since 1998. The Index is based on 21 different variables, including payment duration, payment loss, consequences of late payments and forecast on risk development, as well as technical financial data. Payment Index (PI) measures the average days beyond terms it takes a business to pay its suppliers. PI ranges from 0 to 99. The closer the company scores to zero, the better it pays its suppliers (www.intrum.com). PI is used for comparison of various economies, regions and sectors.

## **Results of Payment Ability Analysis in Slovakia**

Loss of irrecoverable receivables in Slovakia had been compared with development in Europe. According Table 1 there is obvious in Slovakia this figure compared to 2012 (3.6%) increased to 3.9%. According to the latest results in 2014 in Europe, losses from bad debts increased in 2013 from 3.0% to 3.1%, which presents 360 billion  $\varepsilon$ , despite the fact that average payments of consumers, enterprises and public sector has been shortened, compared with 2013. The percentage of losses from bad debt of European companies is increasing annually for eight years.

| Year     | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|----------|------|------|------|------|------|------|------|------|
| Europe   | 1.8  | 1.9  | 2.0  | 2.4  | 2.6  | 2.7  | 2.8  | 3.0  |
| Slovakia | -    | -    | 2.8  | 3.0  | 3.5  | 3.3  | 3.6  | 3.9  |

Table 1 Loss of irrecoverable receivables in Europe and Slovakia (%)

In Slovakia, the level of losses from bad debts increased by 0.1% to 4% of total annual revenue of companies. It is equal to a total amount of 2 billion  $\in$ . Late payments cause in business fast chain reaction, where the lack of liquidity forced to speed up saving measurements. SMEs recorded the strongest impact, since they contributed most significantly to growth. The development is illustrated also by graphical illustration in percentage by Figure 2.

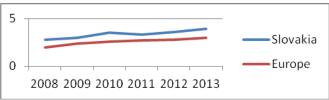


Figure 2. Graphical illustration of loss of irrecoverable receivable, compared in Europe and Slovakia (%)

The day's number of delay payments declined and percentage of bad debts losses increased. When liquidity decreases, Slovak companies prefer the first of all payment of unpaid interest and amortization of payments to the bank. 74% of Slovak companies reported a reduction in sales due to the recession. Table 2 and 3 provides information about development of average payable period of receivables in Slovakia as a whole and by consumers and companies individually.

|                                   | Consumers | Companies | Public<br>sector |
|-----------------------------------|-----------|-----------|------------------|
| Average period of payment in 2013 | 17        | 26        | 25               |
| Average filled payment in 2013    | 27        | 44        | 57               |
| Average delay 2013                | 10        | 18        | 32               |
| Average delay 2012                | 13        | 21        | 37               |

| Table 2. Average    | payable period | of receivable in | n Slovakia (days)  |
|---------------------|----------------|------------------|--------------------|
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The risk of late payments in 2013, compared to payments in 2012 was reduced in all sectors of the Slovak economy. Mostly it was in public sector, where the waiting time for payment of debts decreased from 37 days to 32 days. Compared to 2012 Slovak companies and consumers recorded slight improve by 3 days.

| Year     |               | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|----------|---------------|------|------|------|------|------|------|
| Europe   | Consumers     | 40   | 41   | 39   | 40   | 38   | 36   |
|          | Companies     | 56   | 57   | 55   | 56   | 52   | 49   |
|          | Public sector | 65   | 67   | 63   | 65   | 65   | 61   |
| Slovakia | Consumers     | 33   | 27   | 33   | 31   | 30   | 27   |
|          | Companies     | 39   | 39   | 43   | 46   | 47   | 44   |
|          | Public sector | 35   | 39   | 50   | 55   | 62   | 57   |

Table 3. Average period of payment of consumers and companies (days)

The Table 4 below illustrates "duration of payment" and points to the actual number of days, lapsed away from claim arising to its collection. In 2013 the duration of payments by consumers in Slovakia presented 27 days. It was about 9 days less than the European average, and such situation Slovakia has never once exceed.

 Table 4. Average payment duration at consumers and companies in 2013 (days)

|  | Consumers | Companies | Public sector |
|--|-----------|-----------|---------------|
| Slovakia   | 27        | 44        | 57            |
| North Europe (Norway, Sweden,<br>Finland, Denmark)         | 21        | 32        | 32            |
| Eastern Europe (Greece, Italy,<br>Spain, Portugal, Cyprus) | 60        | 87        | 140           |

The average duration of payments by consumers in Slovakia is 27 days. The shortest collection belongs to debt collection in northern European countries, where it presents 21 days. In southern European countries it is 60 days, which is almost three times more than the average number of days in northern Europe.

From the table there is obvious that the average duration of payments by businesses in Slovakia is always below the European average. In 2013 the duration of payments in Europe was 49 days, which is the shortest duration since 2008.

Slovakia has a payment period 44 days and it was ranked in 17th place in Europe. Debt collection has shortest payment period in the countries of northern Europe (Finland 26 days) on the other hand it is longest in the countries of southern Europe (Italy 96 days).

Duration of payments in public sector in Europe in 2013 has fluctuating tendency and it reached 61 days. In Slovakia duration of payments had increasing trend, in 2012 it was only 62 days, but in 2013 there was a slight decline by 5 days. Compared to Europe, it was 4 days less.

In northern European countries, the duration of payment by consumers is 32 days. In Slovakia it is about 25 days more, which means 57 days. Debt collection lasts the longest in southern European countries up to 140 days.

Risk index is used to compare different economies, regions and sectors (see Figure 3). In addition to the technical features of the financial indicators, index is based on an analysis and assessment of individual companies. Data underlying the index are generated annually using a standardized written questionnaire. The risk index is calculated from the eight indicators with different weights, which are formed by the following values: contractual payment period (days), the actual duration of the payments (days), the age structure of receivables, the ratio of irreclaimable payments (%), estimation of risk trends, characteristic of irreclaimable debts consequences, late payment causes.

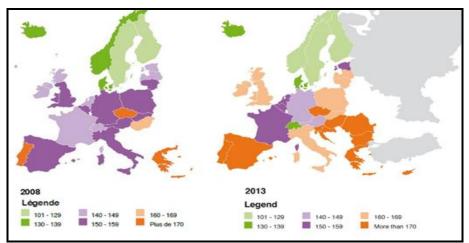


Figure 3. Development of change in payment risk index

The EPI (European Payment Index) reflects the debt risk of corporations in each EU country. This index is widely used for evaluation of the ability of a business to settle with market participants (Grigonyté and Maknickiene, 2014). From 2008 to 2013 deterioration of index occurred in most countries. Slovakia has reached value 164 (see Tab. 5). This is the highest value reached since 2007.

| Table 5. Development of payment fisk index in Slovakia |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|
| Year   | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| Payment risk<br>index                                  | 160  | 157  | 160  | 162  | 161  | 162  | 164  |

Table 5. Development of payment risk index in Slovakia

Main reasons of late payment by consumers in 2013 are administrative inefficiency of customers (30%), disagreement (12%), purposeful delay (63%), debtor is in financial difficulties (98%).

| Risk index |  |
|------------|--|
| 100        | Any payment risk, payment after delivery, payment in ahead, any      |
|            | credit.  |
| 101 - 129  | Law risk profile, need to remain alert with aim to keep the profile. |
| 130 - 139  | Law or middle risk profile, there is necessary some intervention to  |
|            | decrease risk.   |
| 140 - 149  | Middle risk profile, necessary to make immediate measurements to     |
|            | decrease risk.   |
| 150 - 159  | Middle or high risk profile, need to decrease risk now.              |
| 160 - 169  | High risk profile, need to make immediate measurements.              |
| > 170      | Extreme case of emergency, need to make measurement to decrease      |
|            | risk profile.  |

Table 6. Explanation of risk index values

According data from Table 6 there is possible to evaluate that with increasing time the value of unpaid receivables is decreasing. Averagely 52% of EU companies wait 86 days, while they give away recovering of debts to professional provider, 39% of EU companies argue that they never give away debts to others, 56% of Slovak companies use the services of a professional provider, and they wait 100 days until they give them away to others.

#### **Development of Payment Index in Industry**

Late payment and non-payment ever hit mostly construction industry. Approximately 53% of debts administrators from construction industry said that late payments have a high impact on the business risks of companies. According to European payment index (EPI), 64% of them say that late payment or non-payment hinders the growth of their businesses.

| Industry                         | Consumers | Companies | Public sector |
|----------------------------------|-----------|-----------|---------------|
| Business services                | 32        | 46        | 49            |
| Building and construction        | 39        | 56        | 65            |
| Education                        | 37        | 45        | 45            |
| Public services                  | 32        | 43        | 47            |
| Financial services               | 33        | 46        | 41            |
| Health care                      | 42        | 59        | 71            |
| Free time, hotels                | 24        | 34        | 41            |
| Production                       | 35        | 59        | 54            |
| Media                            | 35        | 53        | 56            |
| Expert services                  | 33        | 45        | 52            |
| Properties                       | 26        | 38        | 38            |
| Retail and whole sale            | 30        | 43        | 47            |
| Telecommunication                | 29        | 48        | 55            |
| Transport, communication systems | 29        | 45        | 48            |

Table 7. Total duration of payments in individual industries in 2014

Previous Table 7 speaks about development in individual industries. Public services, manufacturing and transport services sectors are suffering from late payments and losses from bad debts at least. Written-off receivables are between 2.1% and 2.3%, while the construction it is 4%.

There is a close relationship between employment and payment delays in construction industry, education and healthcare (see Table 8). Within the building industry and education up to 50% of companies said that because of late payment they stopped accepting new employees; almost the same number of companies said their late payments forced them to dismiss employees: 39% in construction firms and 45% in education system.

|  | Collective       | <b>Rejecting to employ</b> |
|--|------------------|----------------------------|
| Industry                               | redundancies (%) | new employees (%)          |
| Business services                      | 14               | 25                         |
| Building and construction              | 39               | 49                         |
| Education                              | 45               | 48                         |
| Public services                        | 12               | 26                         |
| Financial services                     | 11               | 34                         |
| Health care                            | 21               | 38                         |
| Free time, hotels                      | 15               | 29                         |
| Production                             | 24               | 33                         |
| Media                                  | 15               | 35                         |
| Expert services                        | 12               | 36                         |
| Properties                             | 26               | 41                         |
| Retail and whole sale                  | 13               | 34                         |
| Telecommunication                      | 13               | 29                         |
| Transport, stocking, communic. systems | 16               | 31                         |

Table 8. Consequences of late payment in 2014

The development of the European Payment Index in 2014 illustrates that 40% of European managers of enterprises said that thanks to late payment they did not accept new employees and one of the four European firms argues that it has to dismiss employees as a result of late payments. In Slovakia, 54% of firms due to late payment do not accept new employees and 36% of companies dismissed employees. EPI in 2014 also shows that while consumers and the public sector pay in comparison with last year a little faster, delayed payments reduce liquidity, increase the level of bad debts and prevent the planned growth.

An astounding 55% of the total 10,000 companies said that they are experiencing difficulties as a result of late payment of bills and invoices or complete non-payment. In the EPI development it is the highest percentage, since 36% of companies said that payment delays threaten their very existence, and according every second company it limits their growth.

Economic recovery perceives only a small percentage of European businesses managers, who provide their responses to evaluate EPI in 2014, and they see signs of recovery. Yet 72% of respondents did not see in last 3 months the positive economic impact of recovery. And this lack of hope is shared by the majority of companies in all 31 countries. Slovakia sees the positive effects of economic eradication only by 9% companies.

## Discussion

Lowflation is one of the basic problems in Europe with effort to maintain cash. Great volume of public and private debts causes using of cash for debt payment. Negative inflation supported by low demand, causes real growth of debt. Due to the mentioned decreasing of public and private debt maintains deflations pressures, which complicated debts payment.

There is obvious opposite risk after crisis of debts in Europe. Existence of big debts influences considerably ability of recovery and strengthening of deflation. Economic growth is limited also by geopolitical events, when political risk influences trust of everybody (www.coface.sk).

There is therefore necessary to deal with payment ability, which can be solved by determination of credit limits for individual clients, following of unpaid receivables with determination of interests, cooperation with specialized financial institutions, dealing with payment disability, provision of rabat from order in case of paid receivables.

Total process of credit management means evaluation of payment ability of consumers, which presents base of decision, can be done also through "Credit Risk Score Card", enabling evaluate consumer's ability to pay. It determines credit limits (Huang and Scott, 2007). On the other hand there is calculated also financial rating by the way of RiskCalc, providing better results. By this index there is possible to calculate probability of companies' bankruptcy. But its using is rather costly; it is used mostly in big companies, dealing with higher volume of business credits (Falkenstein, et.al, 2000).

#### Conclusion

Risk profile of companies in the European countries in relation to their payment discipline is assessed by European Payment Index. It's development in 2013 in most countries deteriorated. Similarly there is negative development of the ratio of irreclaimable claims, which is in Europe increased averagely from 2.8% to 3.0%. Time delay in the payment of invoices is declined slightly in most countries declined slightly. A similar trend was also observed in Slovakia.

Management of receivables depends largely on the size of the company. While large companies can afford a separate department dealing with receivables management, small and medium enterprises do not have such possibility. Late payment of invoices may however, causes far greater problems in companies than in large enterprises; therefore the effective management of receivables becomes a necessity (Štefko and Nowak, 2014). Evaluation of customer creditworthiness can be done by own company or by specialized institutions.

Creditworthiness assessment is not necessarily complicated. Qualitative evaluation of client must not be underestimated, because in Slovakia there is common that the customer can pay but will not. Personal contact with customers is very important, as well as building of correct business relationships, which often operates more efficiently than complex claims management systems. Proof of such situation present enterprises of northern European countries, since their payment discipline among EU states is the best and experts in area of claims management sees currently reason in correct business relations.

Conclusion of the paper is orientated to the contributions for development of theory and practice that can be as a helping tool for easier defining and explanation of risk management and also obtaining of necessary information for performing of effective decisions of firm's management.

Risk management offers an important new research domain for management, but it has also some limitations and gaps. There must be also connection between research of enterprise risks management theory and practical using of managerial tools. This area demands to be developed.

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# ROZWÓJ WSKAŹNIKA RYZYKA PŁATNOŚCI W SŁOWACJI W PORÓWNANIU Z WYBRANYMI KRAJAMI UE

**Streszczenie:** W każdej firmie zarządzaniu wierzytelnościami musi być poświęcone wiele uwagi; ponieważ jeśli firma udziela kredytu biznesowego, musi brać pod uwagę ryzyko, że pożyczka nie zostanie spłacona. Okres kryzysu gospodarczego i finansowego przynosi pogłębienie płatniczych problemów niezdyscyplinowanych zachowań, prowadzące do niewypłacalności. W niniejszym artykule dokonano analizy rozwoju wypłacalności konsumentów, przedsiębiorstw i sektora publicznego na Słowacji, a wyniki porównano do sytuacji w wybranych krajach europejskich. Wyniki pokazują, że od 2008 do 2013 roku nastąpiło pogorszenie rozwoju indeksu płatności w większości krajów. Zbadano również główne przyczyny zaległych płatności, głównie opóźnień i trudności finansowych dłużnika. Ze względu na wyżej wspomniane, firmy deweloperskie rozwiązały sytuację zwolnieniami grupowymi, które można uznać za nie bardzo pozytywny fakt.

Słowa kluczowe: zdolność płatności, wskaźnik płatności, konsument, firma, przemysł, Słowacja

## 比較了選擇的歐盟國家風險指數付款斯洛伐克發展

**摘要:**應收賬款的管理必須在任何企業的關注;因為如果公司提供的商業信用,它必 須考慮該貸款將無法償還的風險。經濟和金融危機時期帶來的違紀行為收支問題深 化,導致無力償債。本文章有分析消費者,企業和公共部門償債能力的發展,斯洛 伐克和隨後的發展情況選擇的歐洲國家相比。結果表明,2008年至2013年出現了支 付指數的發展惡化,大多數國家。也有研究逾期付款的主要原因,主要是拖延和債 務人的財務困難。由於提到開發企業集體裁員,這可以算是不太積極的事實得到解 決的情況。

**關鍵詞:**支付能力,支付,消費者,企業,行業,斯洛伐克的指標。