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OVERDUE ACCOUNTS RECEIVABLE: QUALITY ANALYSIS, OPTIONS FOR PREVENTION AND REGULATION



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Abstract

Importance The article discusses the risk that counterparts fail to repay their debts in due time. If overdue receivables are timely detected, evaluated and collection measures are undertaken, this will help preserve assets, enhance the use and allocation of corporate resources.

Objectives We outline methodological principles and practical recommendations for improving the debtor evaluation mechanism, which is designated to increase the efficacy and economic viability of corporate performance.

Methods The research employs a systems approach and statistical data analysis, with the generalization, synthesis, analysis being the principal ones.

Results Having analyzed the data on accounts receivable for 2004–2016, we detected that counterparts violated their obligations in a growing number of cases. The fact provides the rationale for developing and introducing accounts receivable, which help manage the credit risk, optimize cash flows and monitor the corporate liquidity on an ongoing basis. The article sets out five key indicators and presents an additional classifier specifying overdue receivables. The classifier is supposed for analyzing the quality of accounts receivable.

Conclusions and Relevance The proposed indicators can be used by any entity notwithstanding its size and legal structure and adapted, if needed, and automated into respective business processes.

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The performance of any entity is indispensable without receivables. On the one hand, accounts receivable constitute a portion of current assets

withdrawn from operations so as to enable a counterpart to fulfill their obligations later on. So, it is nothing if not a credit risk of an entity. On the other hand, accounts receivable serve as a benchmark of business practices, which unavoidably emerges when an entity competes for its clients and market niche. Therefore, this

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subsequently requires to analyze accounts receivable of the entity so as to optimize its amount, substance and composition.

There are many researches evaluating whether receivables are effectively managed. For example, T.R. Valinurov, T.V. Trofimov [1], A.R. Galyautdinova [2], M.Yu. Ginzburg, L.N. Krasnova, R.R. Sadykova¹, M.A. Dashuka, L.I. Egorova [3], E.A. Kozhina², A.V. Kolodkina, M.A. Saltykova [4], A.P. Kotovich [5], Yu.V. Mezdrikov [6], N.F. Mormul', S.A. Enikeeva [7], T.S. Naumenko [8], S.V. Ovchinnikova [9], E.A. Romanova [10], S.V. Frolova [11], B.A. Shakhmanova [12, 13], S.A. Shelkovnikov, M.N. Fedorov, A.V. Kokorina [14], etc.

Having analyzed receivables management approaches, we found out that business entities tend to use the metrics below most of all, monitoring them throughout certain periods:

- percentage of current assets withdrawn as receivables;
- the median period of receivables collection;
- receivables turnover ratio;
- weighted average term of debt;
- interval indicator of receivables;
- average receivables to sales ratio;
- overdue receivables and its amount (in absolute and relative values), etc.

Every entity may set its own thresholds and adjust its credit policy in line with trends in receivables³.

However, the contemporary economic situation calls for new approaches to receivables management. This stems from rising negative effects in the Russian

economy and subsequent aggravation of payment issues⁴. The factors are accompanied with a slowdown in the sustainable growth of receivables (Fig. 1). If unreasonably uncollected, receivables considerably inhibit the turnover of current assets, thus cutting corporate income [2].

In 2012, growth rates of overdue receivables were 4.9 percent, but they reached 21.1 percent, 36 percent and 12.9 percent in 2013, 2014 and 2015 respectively. Negative growth of 1.5 percent was registered only in 2016.

As overdue receivables should be monitored, there should be such key metrics of receivables, which would help manage the credit risk, optimize cash flows and control corporate liquidity on an ongoing basis.

Key metrics include measurable financial ratios, which characterize the result and performance of receivables both in terms of a certain contract (contract manager) and the entity as a whole.

Key metrics of receivables were set for the following improvements:

- better performance of contract managers within an entity;
- control over receivables through a comprehensive approach and coordination of corporate departments and units;
- efficiency of activities for preventing and eliminating overdue receivables.

The contemporary scholarly literature features the following classes of overdue receivables:

- actionable (under enforcement orders and court actions), unperformed, subject to moratorium and uncollectible [15, 16];
- claimed and not yet claimed [17];

¹ Ginzburg M.Yu., Krasnova L.N., Sadykova R.R. *Finansovyi menedzhment na predpriyatiyakh neftyanoi i gazovoi promyshlennosti* [Financial management at oil and gas enterprises]. Moscow, INFRA-M Publ., 2017, 287 p.

² Kozhina E.A. [Factors affecting the receivables turnover]. *Finansy i kredit = Finance and Credit*, 2017, vol. 23, iss. 21, pp. 1258–1272. (In Russ.) URL: <https://doi.org/10.24891/fc.23.21.1258>

³ Kasacheva O.V. [Setting up a model of receivables metrics at OOO Gazprom transgaz Tomsk]. *Sovremennaya gazotransportnaya otasl': perspektivy, problemy, resheniya: materialy VIII nauchno-prakticheskoi konferentsii* [Proc. Sci. Conf. The Modern Gas Transportation Sector: Prospects, Issues, Solutions]. Tomsk, Ofset Tsentr Publ., 2017, pp. 219–223.

⁴ Gushcha P. *Razvitie situatsii s debitorskoi zadolzhennost'yu v Rossii* [Unfolding the issue of receivables in Russia]. URL: http://ruicm.ru/media/publication/razvitie_situatsii_s_DZ_v_Rossii.pdf (In Russ.);

Kravtsov A. *Analiz dannykh Federal'noi sluzhby gosudarstvennoi statistiki po prosrochnoi debitorskoi zadolzhennosti organizatsii na 1 yanvarya 2017* [Analyzing the data of the Federal State Statistics Service on overdue receivables as of January 1, 2017]. URL: https://zakon.ru/blog/2017/4/20/analiz_dannykh_federalnoj_sluzhby_gosudarstvennoj_statistiki_po_prosrochnoi_debitorskoj_zadolzhennosti

- bad, doubtful and uncollectible [18], etc.

In this article, analyzing the quality of overdue receivables, we specify them viewing the probability of repayment, i.e. liquid, semi-illiquid, illiquid. Liquid receivables shall mean overdue amounts, which is highly likely to be repaid. Such receivables usually arise from a delay in counterparts' finance, incorrect documentation, counterparts' failure to timely deliver the equipment due to a long distance (delayed prepayment, etc.). Receivables are qualified as semi-illiquid if the counterpart regularly fails to perform its obligations for a long period of time (the counterpart is declared bankrupt and subject to bankruptcy proceedings, etc.). Illiquid receivables are amounts due with a strong likelihood that they will not be repaid as the time for claims expires (provided the counterpart is not subject to bankruptcy proceedings and the entity is not on the list of creditors) and/or the counterpart is dissolved.

To evaluate the quality of receivables, we suggest using the following key metrics, which would allow to flag significant areas for receivables monitoring and contribute to transparency of conclusions:

- amount of receivables reduction (R_{AR});
- amount of liquid overdue receivables (AR_{Lqd}^{Ovd});
- amount of semi-illiquid overdue receivables (AR_{Sillqd}^{Ovd});
- amount of illiquid overdue receivables (AR_{Illqd}^{Ovd});
- level of overdue receivables optimization (settlement) (Opt_{AR}^{Ovd}).

The extent to which receivables decrease R_{AR} indicates the time left before receivables could be reclassified from current to overdue (the so called performing receivables period). This metric helps control whether the counterpart is compliant with the time limit given to perform its obligations to the entity. Technically, we suggest expressing it with the following formula:

$$R_{AR} = 100\% - \frac{D_{Fact}}{D_{Contr}} \cdot 100\%, \quad (1)$$

where D_{Fact} stands for a factual number of days for which the entity provides its counterpart a grace period;

D_{Contr} stands for a maximum number of days for which the entity provides a grace period as per contractual terms.

However, D_{Contr} can be increased if the counterpart produces a letter of guarantee stating its commitment to repaying the debt, repayment schedule (provided the entity agrees with the delay), etc. (Table 1).

The amount of liquid overdue receivables (AR_{Lqd}^{Ovd}) shows a percentage of overdue receivables, the repayment of which is fairly certain:

$$AR_{Lqd}^{Ovd} = \frac{AR_{Lqd}^{Lqd}}{AR}, \quad (2)$$

where AR , AR_{Ovd}^{Lqd} mean total receivables and liquid overdue receivables respectively.

It is acceptable for an entity to have (AR_{Lqd}^{Ovd}) in its financial and business operations. However, it should not exceed five percent of total receivables⁵.

The amount of semi-illiquid overdue receivables is expressed as follows:

$$AR_{Sillqd}^{Ovd} = \frac{AR_{Sillqd}^{Sillqd}}{AR}, \quad (3)$$

where AR_{Ovd}^{Sillqd} stands for semi-illiquid overdue receivables.

The amount of illiquid overdue receivables (AR_{Illqd}^{Ovd}) shows the percentage of uncollectible receivables:

$$AR_{Illqd}^{Ovd} = \frac{AR_{Illqd}^{Ovd}}{AR}, \quad (4)$$

where AR_{Illqd}^{Ovd} is illiquid overdue receivables.

Entities should avoid AR_{Ovd}^{Sillqd} and AR_{Illqd}^{Ovd} in its financial and business operations. Otherwise it should undertake measures for settling and eliminating them completely.

⁵ Every entity is entitled to set up a tolerable amount of liquid overdue receivables.

Furthermore, it should be kept in mind that the ratio of AR_{Ovd}^{Lqd} , AR_{Ovd}^{Sillqd} and AR_{Ovd}^{Illqd} reflects the composition of overdue receivables dictating whether the corporate credit policy should be revised:

$$\frac{AR_{Ovd}^{Lqd}}{AR_{Ovd}} + \frac{AR_{Ovd}^{Sillqd}}{AR_{Ovd}} + \frac{AR_{Ovd}^{Illqd}}{AR_{Ovd}} = 1. \quad (5)$$

Analyzing the quality of overdue receivables, the entity can assign credit ratings to its counterparts, that is evaluating their ability (reliability) of an analyzable counterpart to perform obligations. Furthermore, the analysis may spotlight negative changes in the credit risk, thus making the entity remeasure it, choose and conduct preventive measures to cushion adverse effects of credit risk implications. For example, a counterpart may provide an independent guarantee, surety, pledge a marketable asset or adopt prepayment (financial collateral under income-producing contracts) or pay-on-delivery schemes (cost-plus contracts), stipulate covenants, insurance terms in case of the counterpart's default, etc.

The extent to which overdue receivables are optimized (settled) shows the effectiveness of the decision-making process when the entity needs

to tackle the credit risk by evaluating a growth in overdue receivables against total receivables:

$$Opt_{AR}^{Ovd} = \frac{AR_{Ovd}^{End}}{AR^{End}} : \frac{AR_{Ovd}^{Beg}}{AR^{Beg}} = \frac{GR_{AR_{Ovd}}}{GR_{AR}}, \quad (6)$$

where AR_{Ovd}^{Beg} , AR_{Ovd}^{End} indicates the amount of overdue receivables at the beginning and end of an analyzable period;

AR^{Beg} , AR^{End} stand for total receivables at the beginning and end of an analyzable period;

GR_{AR} , $GR_{AR_{Ovd}}$ stand for growth rates in ordinary and overdue receivables for an analyzable period.

When overdue receivables grow faster than total receivables, the credit risks increases as well signifying that the corporate credit policy is ineffective.

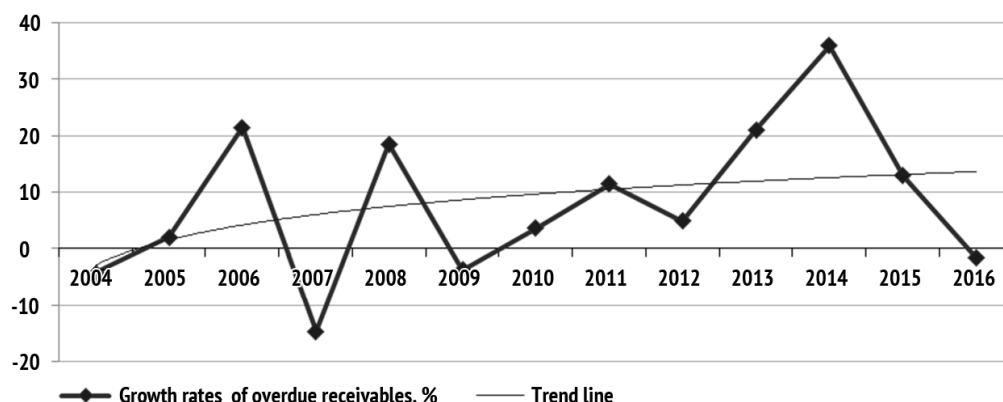
The metrics (1), (2), (3), (4), (6) we propose herein and ratios (5) underlie a comprehensive approach as part of measures and activities for preventing and eliminating overdue receivables. This will enhance the use of current assets. It is noteworthy that the metrics are ever changing. Entities constantly refine them and search for new ideas and opportunities.

Table 1**Types of receivables**

R_{AR}^*	Type of receivables	Counterpart's breach of the time limit	Response
$\geq 0\%$	Current	–	–
From -30% to 0%	Overdue liquid	Minor	–
From -100% to -30%		Material	Claims activities
From $-3,650\%$ to -100%	Overdue semi-illiquid	Fundamental	Court proceedings, termination of a contract, provision for doubtful debts, ongoing monitoring of receivables performance in case of the counterpart's bankruptcy, etc.
Below $-3,650\%$ and/or entries into the Uniform State Register of Legal Entities/Uniform State Register of Sole Entrepreneurship (EGRUL/EGRIP) on the counterpart's dissolution	Overdue illiquid	–	Proposal to qualify the amount due as uncollectible

* The above R_{AR} were gauged imperatively for business operation purposes, with the maturity of respective receivables being within 30 consecutive days. The thresholds are advisable and can be adjusted in each particular case.

Source: Authoring

Figure 1**Trends in growth rates of overdue receivables in the Russian Federation, 2004–2016**

Source: Authoring based on the data published on the official website of the Unified Interdepartmental Statistical Information System (EMISS).

URL: <https://www.fedstat.ru/indicator/31372> (In Russ.)

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