Согласно [3] при $n \geq 4$ справедливы соотношения

$$R_n(g_\gamma, [0,1]) \asymp R_n(g_\gamma^+, [-1,1]) \asymp \frac{1}{n \ln^\gamma n};$$

$$R_n(g_\gamma^-, [-1,1]) \asymp \frac{1}{\ln^\gamma n}.$$

Литература

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FRACTIONAL INTEGRO-DIFFERENTIATION FOR MATHEMATICA

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The talk is devoted to new operation FractionalD$[f[z], z, \alpha]$, which can be presented at Wolfram Function Repository [1] as FractionalOrderD$[f[z], \{z, \alpha\}]$. FractionalD is analytical by order α operator, which for integer positive α coincides with usual α-*th* order derivative D$[f[z], \{z, \alpha\}]$, for integer negative α coincides with repeatable -α times indefinite integral $\int \int \underbrace{\ldots}_{-\alpha} \int f(z)dz$ and for $\alpha = 0$ coincides with initial function $f(z)$. The building of such operator was not easy problem, because differentiation of basic for Taylor series power function z^γ always gives power function with constant coefficient and different power, but integration of z^γ can produce $\log(z)$ (for negative integer γ). We have solved this problem by extension well known from literature generic result $\frac{\Gamma(\gamma+1)\ z^{\gamma-\alpha}}{\Gamma(\gamma-\alpha+1)}$ for integro-differentiation of z^γ to value $\frac{(-1)^{\gamma-1}(\psi(-\gamma)-\psi(\gamma-\alpha+1)+\log(z))}{(-\gamma-1)\Gamma(\gamma-\alpha+1)}\ z^{\gamma-\alpha}$, which should be applied for negative integer γ. More than 100 basic functions in reality are the infinite sums by k of $c_k\ z^{\gamma+k}$ with constant c_k. It allowed us to build fractional derivatives of order α for more than 85000 test-cases, including basic functions and their compositions. Their values coincide with results based on the most popular Riemann-Liouville approach to fractional integro differentiation [2, 3].

References

1. https://resources.wolframcloud.com/FunctionRepository/search/?i=FractionalOrderD
2. https://en.wikipedia.org/wiki/Fractional_calculus # Fractional_derivatives
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МЕТОД ГЛАВНЫХ КОМПОНЕНТ ПРИ ПОСТРОЕНИИ МОДЕЛИ БАНКРОТСТВА БАНКОВ

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В условиях функционирования отечественной банковской системы задачи исследования и анализа неблагоприятных тенденций развития коммерческих банков, прогнозирование банкротства приобретают достаточно важное значение. Однако, отечественных методик, позволяющих с высокой степенью достоверности прогнозировать неблагоприятный исход, практически нет.

Наиболее часто, чтобы оценить финансовую устойчивость банка, применяют следующие группы показателей [1]:

- достаточность капитала;
- ликвидность;