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Selection of overseas oil and gas projects under low oil price

Bao-Jun Tang, Hui-Ling Zhou, Hong Cao

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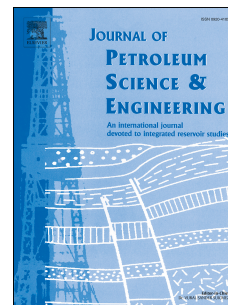
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# 1 Selection of Overseas Oil and Gas Projects under Low Oil 2 Price

3 **Bao-Jun Tang<sup>a,b,c,d,e\*</sup>, Hui-Ling Zhou<sup>a,b,c,d,e</sup>, Hong Cao<sup>a,f</sup>**

4 <sup>a</sup> *Center for Energy and Environmental Policy Research, Beijing Institute of Technology, Beijing 100081,*  
5 *China*

6 <sup>b</sup> *School of Management and Economics, Beijing Institute of Technology, Beijing 100081, China*

7 <sup>c</sup> *Beijing Key Lab of Energy Economics and Environmental Management, Beijing 100081, China*

8 <sup>d</sup> *Sustainable Development Research Institute for Economy and Society of Beijing, Beijing 100081, China*

9 <sup>e</sup> *Collaborative Innovation Center of Electric Vehicles in Beijing, Beijing 100081, China*

10 <sup>f</sup> *School of Finance, Capital University of Economics & Business, Beijing 100083, China*

## 11 12 **Abstract**

13 In order to actively resist the risk of falling oil prices, the international oil companies need to  
14 adjust the business strategy in time. Investment efficiency can be enhanced through effective  
15 allocation of funds. This work constructs a set of analytical ideas and methods for the  
16 re-optimization of the oil project portfolio under the constraints of budget and production capacity.  
17 Based on the quadratic programming model and the preference theory, the optimal portfolio  
18 decision is made. The case study concludes that the flexibility of contract terms improves the  
19 optimization efficiency, that is, reduces the portfolio investment risk, optimizes the budget  
20 allocation, and expands the range of alternative projects. In terms of decision-making, net present  
21 value should not be the only criterion for project selection. However, the portfolio optimization  
22 presented in this article, which considers the multiple constraints and inter-projects relationships,  
23 can achieve the compromise between risk and return.

24 *Key words:* overseas oil project, portfolio, investment, optimization, risk tolerance

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\* Corresponding author. Tel.: +86 10 68918013.

Email addresses: [tbj@bit.edu.cn](mailto:tbj@bit.edu.cn) (Bao-Jun Tang)

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