from the members of this committee and from the witnesses who are going to appear, on this aspect, because it is troublesome and it may be very vital.

This is why we proposed to use the income percentage method of obtaining royalties. However, we did not want to depart completely from the production percentage basis, because whatever the profitability is, if companies are willing to produce a substantial quantity of the product from the public lands, there should be some return to the Government from the sale of publicly owned mineral resources of the leased land. Therefore a minimum royalty of 3 percent of production was proposed.

We also had to decide what the appropriate rate of royalty would be. Here again the lack of experience on the cost of shale production rendered the problem difficult. We set as a goal a royalty rate of shale oil net income which would have the equivalent impact on net income as the royalty rate on production value used on the Outer Continental Shelf lands leases. That royalty is 16⅔ percent of the value of the minerals produced. It was the judgment of our economists that on the average a 16⅔-percent royalty on production would work out to be about 30 percent of net income from conventional oil producing property. A royalty rate of 30 percent of the net income from the property was therefore our target, without taking into account depletion or the payment of the royalty itself. The simple method to have done this would have been to state that the royalty rate was 30 percent of net income from the property, without regard to depletion or payment of the royalty. There was, however, another factor to be considered. The net income royalty system, although not an expense of doing business, does have an effect on the rate of return of investment in the venture. We were concerned that a flat rate of 30 percent of net income might reduce the total income from the venture to a point where it would not be attractive to enter this new and unproved business. Accordingly, the royalty percentage we proposed would be made applicable in brackets so that the venture need not fear that a low rate of return on investment would be reduced to below where it would be attractive to make the investment.

We proposed three brackets. On that part of a company's net income which represents no more than 10-percent return on investment, the royalty rate would be 10 percent. On the part of its net income which exceeds 10 percent and is no more than 20-percent return on its investment, the royalty rate would be 30 percent. On the part of its net income which is more than 20 percent of investment, a 50-percent royalty would be imposed. This means that no firm would pay an effective rate of 50 percent of net income in royalty. It would operate like the income tax rate, in that a taxpayer in the 50-percent bracket is not paying 50 percent of his income as tax, but is paying a tax something like an average of the bracket rates up to 50 percent. In the case of our proposed royalty system, the effective royalty rate of the most profitable venture is estimated to be approximately 30 percent of net income if the venture, in terms of return on investment, were about as profitable as the production of oil from conventional sources. If the venture were to yield a higher rate of return on investment than from conventional sources of oil then the effective rate may be greater