Terms of Trade

Let's say you're given the following two PPFs:

![Graph showing PPFs for France and Italy](image)

Let's make our opportunity cost table:

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine</td>
<td>(\frac{2}{3}) olive oil</td>
<td>2 olive oil</td>
</tr>
<tr>
<td>Olive Oil</td>
<td>(\frac{3}{2}) wine</td>
<td>(\frac{1}{2}) wine</td>
</tr>
</tbody>
</table>

From the table, we know that France should specialize in wine, and Italy should specialize in olive oil.

What are the terms of trade for wine? Italy could forgo 2 olive oil to get 1 wine on their own, so a price for 1 wine less than 2 olive oil will make them happy.

France had to forgo \(\frac{2}{3}\) olive oil to make 1 wine, so they will want more than \(\frac{2}{3}\) olive oil in a trade. Put another way, France could not make that 1 wine and instead make \(\frac{2}{3}\) olive oil without
trading (that's their "next best alternative") so if Italy offers them more than \( \frac{2}{3} \) olive oil for that 1 wine, they will be happy. Here's our number line:

\[
\begin{array}{c}
\text{Italy} \\
\frac{2}{3} \\
\text{France} \\
2
\end{array}
\]

So our price for 1 wine is between \( \frac{2}{3} \) and 2 olive oil.

Now let's consider the price for 1 olive oil. France could give up \( \frac{3}{2} \) wine to get 1 olive oil without trade so they will be happy with a price lower than \( \frac{3}{2} \) wine.

Italy had to forgo \( \frac{1}{2} \) wine to make 1 olive oil (Italy could take the 1 olive oil and instead make \( \frac{1}{2} \) wine without trade) so they want a price higher than \( \frac{1}{2} \) wine.

\[
\begin{array}{c}
\text{France} \\
\frac{1}{2} \\
\text{Italy} \\
\frac{3}{2}
\end{array}
\]

So the price for 1 olive oil should be between \( \frac{1}{2} \) and \( \frac{3}{2} \) wine.