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Appendix

A Proof of Lemmata

A.1 Proof of Lemma 1

We are going to demonstrate here that, whatever the price the gallery paid to buy the artwork, it will be sold to the auction house if and only if (16) holds, while it will be sold to the outsider if and only if (17) holds.
The proof is divided in two parts.
Proof. Assume the gallery bought the artwork from the insider, who thought to be in the *aigo* path. If the artwork is sold to the outsider, the selling price will be equal to (3). If the artwork will be sold to the auction house, deviating from the channel the insider considered when he bargained the price with the gallery, the price will be:

$$P^{gh}_{aigh}|P^{ig}_{aigo} = (1-\rho_{gh})P^{ig}_{aigo} + \rho_{gh}P^{o}_{R} \tag{A.1}$$

where $P^{gh}_{aigh}|P^{ig}_{aigo}$ indicates that the gallery sells the artwork to the auction house also if it has been bought from the insider as if he thought it will be sold to the outsider. Using equilibrium prices, this price can be rewritten as:

$$\begin{aligned} P^{gh}_{aigh}|P^{ig}_{aigo} = {} & \frac{(1-\rho_{gh})(1-\rho_{ai})(1-\rho_{ig})P^{a}_{R} + \rho_{gh}\left[1-\rho_{ai}(1-\rho_{ig})\right]P^{o}_{R}}{1-\rho_{ai}(1-\rho_{ig})} + \\ & + \frac{\rho_{ig}(1-\rho_{gh})}{1-\rho_{ai}(1-\rho_{ig})}\left[\frac{(1-\rho_{go})(1-\rho_{ai})(1-\rho_{ig})P^{a}_{R} + \rho_{go}\left[1-\rho_{ai}(1-\rho_{ig})\right]P^{o}_{R}}{1-\rho_{ai}(1-\rho_{ig})-\rho_{ig}(1-\rho_{go})}\right] \end{aligned} \tag{A.2}$$

Selling the artwork to the auction house instead of selling it to the outsider, that is $aigh \succ aigo$, is the preferred choice if $P^{gh}_{aigh}|P^{ig}_{aigo} > P^{go}_{aigo}$. This is solved for $\rho_{gh} > \rho_{go}$, which is (16).
The "only if" part of the relation is easy to prove, since $P^{gh}_{aigh}|P^{ig}_{aigo} > P^{go}_{aigo}$ and $\rho_{gh} > \rho_{go}$ are equivalent, and $aigh \succ aigo$ implies that the price obtained in the *aigh* channel thanks to the deviation is higher than the one obtained from the *aigo* channel.

Assume now that the gallery bought the artwork from the insider, who thought to be in the *aigh* path. If the gallery sells the artwork to the auction house, as expected by the insider, the selling price will be (6). If, instead, the gallery deviates from what the insider expected, the price that the outsider pays will be:

$$P^{go}_{aigo}|P^{ig}_{aigh} = (1-\rho_{go})P^{ig}_{aigh} + \rho_{go}P^{o}_{R} \tag{A.3}$$

The intuition behind the notation of the left-hand side of (A.3) is the same explained above for (A.1).
Using equilibrium prices, we can rewrite (A.3) as:

$$\begin{aligned} P^{go}_{aigo}|P^{ig}_{aigh} = {} & \frac{(1-\rho_{go})(1-\rho_{ai})(1-\rho_{ig})P^{a}_{R} + \rho_{go}\left[1-\rho_{ai}(1-\rho_{ig})\right]P^{o}_{R}}{1-\rho_{ai}(1-\rho_{ig})} + \\ & + \frac{\rho_{ig}(1-\rho_{go})}{1-\rho_{ai}(1-\rho_{ig})}\left[\frac{(1-\rho_{gh})(1-\rho_{ai})(1-\rho_{ig})P^{a}_{R} + \rho_{gh}\left[1-\rho_{ai}(1-\rho_{ig})\right]P^{o}_{R}}{1-\rho_{ai}(1-\rho_{ig})-\rho_{ig}(1-\rho_{gh})}\right] \end{aligned} \tag{A.4}$$

$aigh \succ aigo$ can be rewritten using the prices in (6) and in (A.4) as $P^{gh}_{aigh} > P^{go}_{aigo}|P^{ig}_{aigh}$, that is solved for (16).
The "only if" part of the relation is straightforward, since the relation $aigh \succ aigo$ implies $P^{gh}_{aigh} > P^{go}_{aigo}|P^{ig}_{aigh}$, which is equivalent to (16).

Assume that the gallery bought the artwork from the artist, who though to be in the *ago* path. If the gallery sells the artwork to the outsider, the selling price will be equal to (9). If, instead, the gallery sells it to the auction house, deviating from what the artist thought, the price will be equal to:

$$P^{gh}_{agh}|P^{ag}_{ago} = (1-\rho_{gh})P^{ag}_{ago} + \rho_{gh}P^{o}_{R} \tag{A.5}$$

Using the equilibrium price in (10), we can rewrite (A.5) as:

$$P^{gh}_{agh}|P^{ag}_{ago} = \frac{(1-\rho_{gh})(1-\rho_{ag})P^{a}_{R} + \left[\rho_{ag}(\rho_{go}-\rho_{gh})+\rho_{gh}\right]P^{o}_{R}}{1-\rho_{ag}(1-\rho_{go})} \tag{A.6}$$

The gallery will prefer to sell to the auction house ($agh \succ ago$) if $P^{gh}_{agh}|P^{ag}_{ago} > P^{go}_{ago}$, which is solved for (16).
The "only if" part of the relation is straightforward to prove, since $\rho_{gh} > \rho_{go}$ is equivalent to $P^{gh}_{agh}|P^{ag}_{ago} > P^{go}_{ago}$, and the former expression is true if $agh \succ ago$.

Assume that the gallery bought the artwork from the artist, who though to be in the *agh* path. If the gallery will sell the artwork to the auction house, the selling price will be equal to (11). If, instead, the gallery sells the artwork to the outsider, the price will be equal to:

$$P^{go}_{ago}|P^{ag}_{agh} = (1-\rho_{go})P^{ag}_{agh} + \rho_{go}P^{o}_{R} \tag{A.7}$$

Substituting (11) into (A.7), we obtain:

$$P^{go}_{ago}|P^{ag}_{agh} = \frac{(1-\rho_{go})(1-\rho_{ag})P^{a}_{R} + \left[\rho_{ag}(\rho_{gh}-\rho_{go})+\rho_{go}\right]P^{o}_{R}}{1-\rho_{ag}(1-\rho_{gh})} \tag{A.8}$$

The gallery will prefer to sell to the auction house ($agh \succ ago$) if the price it will obtain will be higher, that is, using (11) and (A.8), if $P^{gh}_{agh} > P^{go}_{ago}|P^{ag}_{agh}$, that is solved for (16).
The "only if" part of the relation is straightforward to prove, since (16) is equivalent to $P^{gh}_{agh} > P^{go}_{ago}|P^{ag}_{agh}$, and this is implied by $agh \succ ago$.
This completes the first part of the proof.

Assume the gallery bought the artwork from the insider, who though to be in the *aigo* path. If the gallery sells it to the outsider, the selling price will be (3), while if it sells the artwork to the auction house, the selling price will be the one in (A.2). Selling to the outsider will be preferred to selling to the auction house ($aigo \succ aigh$) when $P^{go}_{aigo} > P^{gh}_{aigh}|P^{ig}_{aigo}$, and this is equivalent to (17).

Assume now that the gallery bought the artwork from the insider, who though to be in the *aigh* path. If the gallery sells the artwork to the auction house, the selling price will be (6), while if it deviates and sells it to the outsider, the price will be (A.4). For the gallery, $aigo \succ aigh$ is equivalent to $P^{go}_{aigo}|P^{ig}_{aigh} > P^{gh}_{aigh}$, which is solved for (17).

Assume, finally, that the gallery bought the artwork from the artist, who thought to be in the *ago* path. If the gallery sells the artwork to the outsider, the selling price will be (9), while if it sells the artwork to the auction house, the selling price will be (A.6). The gallery will sell the artwork to the outsider if $ago \succ agh$, that is equivalent to $P^{go}_{ago} > P^{gh}_{agh}|P^{ag}_{ago}$, which is solved for (17).

Assume now that the gallery bought the artwork from the artist, who thought to be in the agh path. If the gallery actually sells the artwork to the auction house, the price will be (11), while if it deviates and sells it to the outsider, the price will be (A.8). The gallery will prefer selling the artwork to the outsider if $ago \succ agh$, that is, if $P^{go}_{ago}|P^{ag}_{agh} > P^{gh}_{agh}$, which is solved for (17).
This completes the proof. ■

A.2 Proof of Lemma 2

We now demonstrate that, independently on what is the price paid by the insider, he will sell the artwork to the auction house when (18) holds, and he will sell the artwork to the gallery when (19) holds.
The proof is made up of four parts.
Proof. Assume the insider bought the artwork from the artist, who thought to be in the aih path. If the insider sells the artwork to the auction house, the selling price will be equal to (13). If, instead, the insider sells the artwork to the gallery, knowing that the gallery will sell it to the auction house afterwards (assuming that (16) holds), the selling price will be equal to:

$$P^{ig}_{aigh}|P^{ai}_{aih} = (1-\rho_{ig})P^{ai}_{aih} + \rho_{ig}P^{gh}_{aigh}|P^{ai}_{aih} \tag{A.9}$$

where $P^{gh}_{aigh}|P^{ai}_{aih} = (1-\rho_{gh})P^{ig}_{aigh}|P^{ai}_{aih} + \rho_{gh}P^{o}_{R}$. Using equilibrium prices, we can rewrite (A.9) as:

$$P^{ig}_{aigh}|P^{ai}_{aih} = \frac{(1-\rho_{ig})(1-\rho_{ai})P^{a}_{R} + \rho_{ai}\rho_{ih}(1-\rho_{ig})P^{o}_{R}}{[1-\rho_{ig}(1-\rho_{gh})]\,[1-\rho_{ai}(1-\rho_{ih})]} + \frac{\rho_{ig}\rho_{gh}P^{o}_{R}}{1-\rho_{ig}(1-\rho_{gh})} \tag{A.10}$$

The insider will prefer to sell the artwork to the auction house ($aih \succ aigh$) when (13) is greater than (A.10). This is equivalent to $\rho_{ih} > \frac{\rho_{ig}\rho_{gh}}{1-\rho_{ig}(1-\rho_{gh})}$, which is (18) when (16) holds.

Assume now that the insider bought the artwork from the artist, who though to be in the $aigh$ path. If the insider sells the artwork to the gallery as expected by the artist (and, afterwards, the gallery will sell the artwork to the auction house, assuming that (16)), the selling price will be (7). Conversely, if the insider sells the artwork to the auction house, he will get:

$$P^{ih}_{aih}|P^{ai}_{aigh} = \rho_{ih}P^{o}_{R} + \frac{(1-\rho_{ih})(1-\rho_{ai})\,[1-\rho_{ig}(1-\rho_{gh})]\,P^{a}_{R} + \rho_{ai}\rho_{ig}\rho_{gh}(1-\rho_{ih})P^{o}_{R}}{1-\rho_{ai}(1-\rho_{ig})-\rho_{ig}(1-\rho_{gh})} \tag{A.11}$$

The insider will prefer to sell the artwork directly to the auction house ($aih \succ aigh$) when (A.11) is greater than (7); this is equivalent to have (18) to hold when (16) is verified.
This completes the first part of the proof.

Assume now that the insider bought the artwork from the artist, who though to be in the aih path. If he sells the artwork to the auction house as expected by the artist, he will get (13), while if he sells the artwork to the gallery (that will sell the artwork to the outsider afterwards, assuming that (17) holds), the selling price will be $P^{ig}_{aigo}|P^{ai}_{aih} = (1-\rho_{ig})P^{ai}_{aih} + \rho_{ig}P^{go}_{aigo}|P^{ai}_{aih}$, where $P^{go}_{aigo}|P^{ai}_{aih} = (1-\rho_{go})P^{ig}_{aigo}|P^{ai}_{aih} + \rho_{go}P^{o}_{R}$, that can be rewritten as:

$$P^{ig}_{aigo}|P^{ai}_{aih} = \frac{(1-\rho_{ig})(1-\rho_{ai})P^{a}_{R} + \rho_{ai}\rho_{ih}(1-\rho_{ig})P^{o}_{R}}{[1-\rho_{ig}(1-\rho_{go})]\,[1-\rho_{ai}(1-\rho_{ih})]} + \frac{\rho_{ig}\rho_{go}P^{o}_{R}}{1-\rho_{ig}(1-\rho_{go})} \tag{A.12}$$

The insider will prefer to sell the artwork to the auction house instead of to the gallery ($aih \succ aigo$) when the price in (13) is greater than the one in (A.12), and this is equivalent to have (18) to hold when (17) is verified.

Assume now that the insider bought the artwork from the artist, who though to the in the *aigo* path. If he sells the artwork to the gallery as expected by the artist, the selling price will be (4). If the insider sells the artwork to the auction house, deviating from what the artist thought, he will get $P^{ih}_{aih}|P^{ai}_{aigo} = (1-\rho_{ih})P^{ai}_{aigo} + \rho_{ih}P^o_R$, which can be rewritten as:

$$P^{ih}_{aih}|P^{ai}_{aigo} = \rho_{ih}P^o_R + \frac{(1-\rho_{ih})(1-\rho_{ai})\left[1-\rho_{ig}(1-\rho_{go})\right]P^a_R + \rho_{ai}\rho_{ig}\rho_{go}(1-\rho_{ih})P^o_R}{1-\rho_{ai}(1-\rho_{ig})-\rho_{ig}(1-\rho_{go})} \tag{A.13}$$

The insider will prefer to sell the artwork to the auction house ($aih \succ aigo$) when (A.13) is greater than (4), which is equivalent to (18) when (17) is verified.
This completes the second part of the proof.

Assume that the insider bought the artwork from the artist, who though to be in the *aih* path. If he sells the artwork to the auction house as expected by the artist, the selling price will be equal to (13). If he will sell the artwork to the gallery, the selling price will be (A.10). The insider will prefer to sell the artwork to the gallery ($aigh \succ aih$) when (A.10) is greater than (13), which is equivalent to have (19) to hold when (16) is verified.

Assume that the insider bought the artwork paying (8) to the artist. If he sells the artwork to the gallery, the selling price will be equal to (7), while if he sells it to the auction house, deviating from what the artists expects, he will obtain (A.11). He will prefer to sell the artwork to the gallery ($aigh \succ aih$) if (7) is greater than (A.11), which is verified when (19) and (16) hold.
This completes the third part of the proof.

Assume the insider bought the artwork from the artist, who thought to be in the *aih* path. If he sells the artwork to the auction house, the selling price will be (13), while if he sells it to the gallery he will get (A.12). He will prefer to sell the artwork to the outsider ($aigo \succ aih$) when the price in (A.12) is higher than the one in (13), which is true when (19) holds and (17) is verified.

Assuming that the insider bought the artwork from the artist, who thought to be in the *aigo* path. If he sells the artwork to the gallery, the selling price will be (4), while if he deviates from what the artist thought and sells the artwork to the auction house, the selling price will be (A.13). The insider will prefer the *aigo* channel to the *aih* channel when (4) is greater than (A.13), which is true when (19) holds and (17) is verified.
This completes the proof. ■

B Proof of Proposition 1

We now prove Proposition 1. The proof is divided in two parts.
Proof. The artist will prefer to sell to the insider than to sell to the gallery or to the auction house, when (16) and (18) holds, when $P^{ai}_{aih} > \max\{P^{ag}_{agh}, P^{ah}_{ah}\}$. This is equivalent

to the following system:

$$\begin{cases} \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} > \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{gh}P_R^o}{1-\rho_{ag}(1-\rho_{gh})} \\ \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} > (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o \\ \rho_{ig}\rho_{gh}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{gh}<0 \\ \rho_{gh}>\rho_{go} \end{cases} \tag{B.1}$$

The system is solved for the conditions in (20), when (16) holds.

The artist will prefer to sell to the insider than to sell to the gallery or to the auction house, when (17) and (18) holds, when $P_{aih}^{ai} > \max\{P_{ago}^{ag}, P_{ah}^{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} > \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{go}P_R^o}{1-\rho_{ag}(1-\rho_{go})} \\ \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} > (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o \\ \rho_{ig}\rho_{go}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{go}<0 \\ \rho_{gh}<\rho_{go} \end{cases} \tag{B.2}$$

The system is solved for the conditions in (20), when (17) holds.

The artist will prefer to sell to the gallery than to sell to the insider or to the auction house, when (16) and (18) holds, when $P_{agh}^{ag} > \max\{P_{aih}^{ai}, P_{ah}^{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{gh}P_R^o}{1-\rho_{ag}(1-\rho_{gh})} > \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} \\ \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{gh}P_R^o}{1-\rho_{ag}(1-\rho_{gh})} > (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o \\ \rho_{ig}\rho_{gh}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{gh}<0 \\ \rho_{gh}>\rho_{go} \end{cases} \tag{B.3}$$

The system is solved for the conditions in (21), when (16) holds.

The artist will prefer to sell to the gallery than to sell to the insider or to the auction house, when (17) and (18) holds, when $P_{ago}^{ag} > \max\{P_{aih}^{ai}, P_{ah}^{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{go}P_R^o}{1-\rho_{ag}(1-\rho_{go})} > \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} \\ \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{go}P_R^o}{1-\rho_{ag}(1-\rho_{go})} > (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o \\ \rho_{ig}\rho_{go}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{go}<0 \\ \rho_{gh}<\rho_{go} \end{cases} \tag{B.4}$$

The system is solved for the conditions in (21), when (17) holds.

The artist will prefer to sell to the auction house than to sell to the insider or to the gallery, when (16) and (18) holds, when $P_{ah}^{ah} > \max\{P_{aih}^{ai}, P_{agh}^{ag}\}$. This is equivalent to the following system:

$$\begin{cases} (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o > \frac{(1-\rho_{ai})P_R^a+\rho_{ai}\rho_{ih}P_R^o}{1-\rho_{ai}(1-\rho_{ih})} \\ (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o > \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{gh}P_R^o}{1-\rho_{ag}(1-\rho_{gh})} \\ \rho_{ig}\rho_{gh}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{gh}<0 \\ \rho_{gh}>\rho_{go} \end{cases} \tag{B.5}$$

The system above is equivalent to the conditions in (22), when (16) holds.

The artist will prefer to sell to the auction house than to sell to the insider or to the gallery, when (17) and (18) holds, when $P^{ah}_{ah} > \max\{P^{ai}_{aih}, P^{ag}_{ago}\}$. This is equivalent to the following system:

$$\begin{cases} (1-\rho_{ah})P^a_R + \rho_{ah}P^o_R > \frac{(1-\rho_{ai})P^a_R+\rho_{ai}\rho_{ih}P^o_R}{1-\rho_{ai}(1-\rho_{ih})} \\ (1-\rho_{ah})P^a_R + \rho_{ah}P^o_R > \frac{(1-\rho_{ag})P^a_R+\rho_{ag}\rho_{go}P^o_R}{1-\rho_{ag}(1-\rho_{go})} \\ \rho_{ig}\rho_{go} - \rho_{ih} + \rho_{ih}\rho_{ig} - \rho_{ih}\rho_{ig}\rho_{go} < 0 \\ \rho_{gh} < \rho_{go} \end{cases} \tag{B.6}$$

The system is solved for the condition in (22), when (17) holds.
This completes the first parte of the proof.

The artist will prefer to sell to the insider than to sell to the gallery or to the auction house, when (16) and (19) holds, when $P^{ai}_{aigh} > \max\{P^{ag}_{agh}, P^{ah}_{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{gh})]P^a_R+\rho_{ai}\rho_{ig}\rho_{gh}P^o_R}{1-\rho_{ig}(1-\rho_{gh})-\rho_{ai}(1-\rho_{ig})} > \frac{(1-\rho_{ag})P^a_R+\rho_{ag}\rho_{gh}P^o_R}{1-\rho_{ag}(1-\rho_{gh})} \\ \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{gh})]P^a_R+\rho_{ai}\rho_{ig}\rho_{gh}P^o_R}{1-\rho_{ig}(1-\rho_{gh})-\rho_{ai}(1-\rho_{ig})} > (1-\rho_{ah})P^a_R + \rho_{ah}P^o_R \\ \rho_{ig}\rho_{gh} - \rho_{ih} + \rho_{ih}\rho_{ig} - \rho_{ih}\rho_{ig}\rho_{gh} > 0 \\ \rho_{gh} > \rho_{go} \end{cases} \tag{B.7}$$

The system above is solved for the conditions in (23), when (16) holds.

The artist will prefer to sell to the insider than to sell to the gallery or to the auction house, when (17) and (19) holds, when $P^{ai}_{aigo} > \max\{P^{ag}_{ago}, P^{ah}_{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{go})]P^a_R+\rho_{ai}\rho_{ig}\rho_{go}P^o_R}{1-\rho_{ig}(1-\rho_{go})-\rho_{ai}(1-\rho_{ig})} > \frac{(1-\rho_{ag})P^a_R+\rho_{ag}\rho_{go}P^o_R}{1-\rho_{ag}(1-\rho_{go})} \\ \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{go})]P^a_R+\rho_{ai}\rho_{ig}\rho_{go}P^o_R}{1-\rho_{ig}(1-\rho_{go})-\rho_{ai}(1-\rho_{ig})} > (1-\rho_{ah})P^a_R + \rho_{ah}P^o_R \\ \rho_{ig}\rho_{go} - \rho_{ih} + \rho_{ih}\rho_{ig} - \rho_{ih}\rho_{ig}\rho_{go} > 0 \\ \rho_{gh} < \rho_{go} \end{cases} \tag{B.8}$$

The system is solved for the conditions in (23), when (17) holds.

The artist will prefer to sell to the gallery than to sell to the insider or to the auction house, when (16) and (19) holds, when $P^{ag}_{agh} > \max\{P^{ai}_{aigh}, P^{ah}_{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ag})P^a_R+\rho_{ag}\rho_{gh}P^o_R}{1-\rho_{ag}(1-\rho_{gh})} > \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{gh})]P^a_R+\rho_{ai}\rho_{ig}\rho_{gh}P^o_R}{1-\rho_{ig}(1-\rho_{gh})-\rho_{ai}(1-\rho_{ig})} \\ \frac{(1-\rho_{ag})P^a_R+\rho_{ag}\rho_{gh}P^o_R}{1-\rho_{ag}(1-\rho_{gh})} > (1-\rho_{ah})P^a_R + \rho_{ah}P^o_R \\ \rho_{ig}\rho_{gh} - \rho_{ih} + \rho_{ih}\rho_{ig} - \rho_{ih}\rho_{ig}\rho_{gh} > 0 \\ \rho_{gh} > \rho_{go} \end{cases} \tag{B.9}$$

The system is solved for the conditions in (24), when (16) holds.

The artist will prefer to sell to the gallery than to sell to the insider or to the auction house, when (17) and (19) holds, when $P^{ag}_{ago} > \max\{P^{ai}_{aigo}, P^{ah}_{ah}\}$. This is equivalent to the following system:

$$\begin{cases} \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{go}P_R^o}{1-\rho_{ag}(1-\rho_{go})} > \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{go})]P_R^a+\rho_{ai}\rho_{ig}\rho_{go}P_R^o}{1-\rho_{ig}(1-\rho_{go})-\rho_{ai}(1-\rho_{ig})} \\ \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{go}P_R^o}{1-\rho_{ag}(1-\rho_{go})} > (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o \\ \rho_{ig}\rho_{go}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{go} > 0 \\ \rho_{gh} < \rho_{go} \end{cases} \tag{B.10}$$

The system above is solved for the conditions in (24), when (17) holds.

The artist will prefer to sell to the auction house than to sell to the insider or to the gallery, when (16) and (19) holds, when $P_{ah}^{ah} > \max\{P_{agh}^{ag}, P_{aigh}^{ai}\}$. This is equivalent to the following system:

$$\begin{cases} (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o > \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{gh})]P_R^a+\rho_{ai}\rho_{ig}\rho_{gh}P_R^o}{1-\rho_{ig}(1-\rho_{gh})-\rho_{ai}(1-\rho_{ig})} \\ (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o > \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{gh}P_R^o}{1-\rho_{ag}(1-\rho_{gh})} \\ \rho_{ig}\rho_{gh}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{gh} > 0 \\ \rho_{gh} > \rho_{go} \end{cases} \tag{B.11}$$

The system is solved for the conditions in (25), when (16) holds.

The artist will prefer to sell to the auction house than to sell to the insider or to the gallery, when (17) and (19) holds, when $P_{ah}^{ah} > \max\{P_{ago}^{ag}, P_{aigo}^{ai}\}$. This is equivalent to the following system:

$$\begin{cases} (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o > \frac{(1-\rho_{ai})[1-\rho_{ig}(1-\rho_{go})]P_R^a+\rho_{ai}\rho_{ig}\rho_{go}P_R^o}{1-\rho_{ig}(1-\rho_{go})-\rho_{ai}(1-\rho_{ig})} \\ (1-\rho_{ah})P_R^a+\rho_{ah}P_R^o > \frac{(1-\rho_{ag})P_R^a+\rho_{ag}\rho_{go}P_R^o}{1-\rho_{ag}(1-\rho_{go})} \\ \rho_{ig}\rho_{go}-\rho_{ih}+\rho_{ih}\rho_{ig}-\rho_{ih}\rho_{ig}\rho_{go} > 0 \\ \rho_{gh} < \rho_{go} \end{cases} \tag{B.12}$$

The system is solved for the conditions in (25), when (17) holds.
This completes the proof. ■