

The spot market model of dowries assumes that the dowry is a transfer which clears the marriage market. Implications of this model:

1. It highlights the substitution between dowry and other forms of bridal wealth such as human capital.
2. In a dotal society, fluctuations in dowry prices reflect the relative supply of men and women in the marriage market.
3. Positive dowry prices is interpreted as evidence that women (brides) are valued less than men (grooms) in dotal versus non-dotal societies.

Two anomalies with the spot market model of dowries:

1. How does the current marriage market in previously dotal societies clear?
2. Within dotal societies, why use dowries for daughters and bequests for sons (Goody)?

We provide a model of dowry which resolves the two anomalies. It is also consistent with the first two implications of the spot market model. The third implication of the spot market model is incorrect.

Sketch of model:

- Dotal and non-dotal marriage markets clear by wealth matching between brides and grooms.
- Dowry is a component of bridal wealth. Parents of the bride will provide a dowry if it is part of the least costly mix of providing a desired level of bridal wealth.
- If dowry is no longer part of the least costly mix of providing a desired level of bridal wealth, it will disappear. Bride prices need not appear when dowries disappear.
- In virilocal societies, married daughters move to her in-laws residence whereas married sons continue to live with their parents.

- If parents divide bequests between married sons and daughters, the married sons will have insufficient incentive to increase the family wealth before the death of the parents.
- Dowries, a lump sum payment to the daughter at the time of marriage, solve the free riding problem between married brothers and sisters.

Implications:

1. Dowry contracts should not include claims on income generated by her brothers' efforts.
2. Daughters will get less or no bequest relative to sons in virilocal societies.
3. The share of bequest allocated to a son in virilocal societies is not necessarily a good indicator of the parental valuation of their son.
4. Forward looking participants in the marriage market will forecast expected bequests in determining their wealth contribution in marriage.
5. Holding sibling size constant, dowry value should be positively related to the number of brothers of the bride.

6. Since brothers are competitors for parental bequests, holding sibling size constant, dowry value should be negatively related to the number of brothers of the groom.

7. Dowries should disappear without bride prices appearing in neolocal societies.

1 Model

1 unit of parental capital to be allocated between a son and a daughter.

$$w_s = b(1 + e_s)x$$

w_s : net wealth of son.

x : amount of capital allocated to son.

$e_s = \{0, 1\}$: effort of son.

$(1 + e_s)x$: gross wealth of son which is also estate of parents.

b : share of estate allocated as bequest to son.

$$w_d = (1 - b)(1 + e_s)x + (1 + e_d)(1 - x)$$

w_d : net wealth of daughter.

$e_d = \{0, 1\}$: effort of daughter.

$(1 - x)$: amount of capital, dowry, allocated to daughter.

$(1 - b)(1 + e_s)x$: parental estate allocated as bequest to daughter.

Parental welfare:

$$W = \{U(w_s) - x(1 + e_s)\} + \{U(w_d) - \beta(1 - x)(1 + e_d)\}$$

$\beta > 1$: β measures the relative inefficiency of daughter in working with parental capital.

2 Stages of game

1. Parents allocate capital.
2. Daughter chooses effort.
3. Son chooses effort.
4. Parents allocate estate and parental welfare is realized.

3 First best

Allocate all capital to son.

Son works hard, $e_s = 1$.

Divide estate equally between son and daughter.

4 Free riding

$$\frac{U'}{2} < 1$$

Son will shirk if parents allocated all capital to son and divided estate equally.

5 Second best

In the subgame perfect Nash equilibrium, the choice of x , x^* , satisfies $\frac{1}{2} < x^* \leq \frac{2}{3}$. Both children exert effort. The choice of b , b^* , satisfies $\frac{1}{2} < b^* < \frac{3}{4}$. Parental utility is:

$$W^* = U(1) - 2x^* + U(1) - 2\beta(1 - x^*)$$

Daughter gets dowry/capital and exerts effort even though it is inefficient.

6 Decline of dowry in Sao Paolo

The great patriarchal power over adult offspring that was the rule in seventeenth-century São Paulo gradually diminished. In the eighteenth century sons migrated, transported mules and oxen to the mines, or plied long-distance trade, making it more difficult for their fathers to control them. With the growth of individualism in the nineteenth century, sons became even more independent of their fathers in their business lives, and both sons and daughters were acquiring freedom in the selection of a marriage partner. Such freedom was itself a consequence of the decline of the practice of dowry.

(Nazzari, 1991)

Table 2
 Post-Marital Residence, Polygyny, and the Transfer of Real Property
 in African Societies with Brideprices

	Post-marital residence	
	Virilocal	Else ^d
Parents transfer property to ^a		
Male children	51.8	19.0
Other family members ^b	29.0	66.7
None ^c	7.2	4.7
All children	0.0	9.5
All children (smaller share to daughters)	11.8	0.0
<i>N</i>	110	21
	Extent of polygyny	
Societies with polygyny	79.4	
Societies with occasional/limited polygyny	16.8	
Societies with monogamy	3.8	
<i>N</i>	131	

Source: George P. Murdoch. *Ethnographic Atlas*. Pittsburgh: University of Pittsburgh Press, 1967.

Notes: The numbers in the columns are percentages. Murdoch coded information on 862 societies from the five continents. For these cultures various ethnographic variables are coded, such as the mode of marriage, marital residence, community organization, settlement pattern, linguistic affiliation, the existence of slavery, etc. However, to avoid including two or more societies whose cultures are very similar since they are derived from a recent common source, the 862 societies are grouped into 412 clusters, whose cultures are genetically closely related. The information in Table 2 refers to the clusters.

^a The transfer of property includes both inter vivos transfers and bequests.

^b “Other family members” include: uncles, aunts, cousins, brothers, and nephews of the individual who transfers property.

^c This group includes those societies where land is held collectively (e.g., tribal or clan land). In this instance, individuals cannot transfer real property because they do not have individual property rights on assets. In these eight societies, the transfer of movable property (such as cattle) occurs in the following way: in three cases, movable property is transferred to male children only, in four cases to other family members, in one case no information is provided.

^d “Else” includes all other post-marital residence patterns, such as uxrilocal, neolocal, ambilocal, and avunculocal marriages.

Table 3: Dowry Contracts in Athens, V-IV Centuries B.C.

Orators mentioning dowry contracts	Number of daughters	Goods forming the dowry ^a
Lisias	2	40 minas ?
	2	30 minas 30 minas
	1	1 talentum
Iseus	2	20 minas 20 minas
	1	1000 drachmas
	1	rent from a house (40 minas)
	1	25 minas
	?	20 minas 20 minas
Demosthenes	?	50 minas
	1	2 talenta
	1	1 talentum or 80 minas
	?	1 talentum
	?	100 minas (?)
	2	rent from a house (= 40 minas) 40 minas

Source: Leduc (1991), page 293.

Note: In the case of two daughters, each row in the cells in the third column refers to the dowry of one of the two daughters.

^a One talentum was worth 60 minas, one mina was worth 100 drachmas.

Table 4: Dowry Contracts Among Jews in the Mediterranean, 933–1186 A.D.

<i>Contract characteristics</i>	Percentage of contracts
Payment (movables)	91
Payment (cash)	5
Payment (houses)	29
Payment (land holdings)	1
Profit sharing clause	0
<i>N</i>	61

Sources: We reconstructed these data from the marriage contracts reported in Goitein (1978), pp. 364–93.

Note: Goitein (1978) reports information on about 300 marriage contracts and other records regarding marriage payments. Only 61 of these documents list in details the type of goods forming the dowry.

Table 5: Dowry Contracts in Florence, 1260–1435

Years	1260–99		1340–60		1420–1435	
	Urban	Rural	Urban	Rural	Urban	Rural
<i>Contract characteristics</i>						
Payment (movables)	2.8	0.4	15.6	15.4	14.6	19.4
Payment (cash)	96.1	99.2	91.1	94.9	95.7	94.6
Payment (houses)	4.8	1.2	6.7	2.5	4.5	0.9
Payment (land holdings)	0.9	1.2	8.4	6.4	3.5	1.7
Profit sharing clauses	0.0	0.0	0.2	0.5	0.6	0.1
Median dowry ^a	181.8	136.3	197.3	65.7	885.6	146.8
Average dowry ^a	406.3	161.8	574.6	94.1	1643.0	181.5
Annual wage of skilled workers ^{a,b}	182	—	175 ^c 214 ^c	—	258	—
<i>N</i> (total = 3925)	105	261	464	348	1298	1449

Sources: State Archives of Florence, Notarile Antecosimiano, 409 volumes of notarial contracts.

Note: “Urban” refers to marriages where at least one of the two spouses resided in the city of Florence.

“Rural” refers to marriages where both spouses lived in villages in the Florentine countryside.

^a All figures are in constant (1420-35) lire (the money of account). We converted the values of dowries in gold florins (the circulating currency together with silver coins) into the corresponding values in lire by using the conversion rates provided by C. de la Ronciere, *Prix et salaires à Florence au XIV siècle*, p. 517, table 86; P. Spufford, *Money and Its Use in Medieval Europe*, p. 296, Graph III; C. Cipolla, *The monetary policy*, pp. 63–68; R. Goldthwaite and G. Mandich, *Studi sulla moneta fiorentina*, pp. 85–100.

^b Data on Florentine wages were kindly supplied to us by Paolo Malanima. The figures indicate annual average wages. See also Malanima (1999; 2001).

^c 133 and 219 were the annual average wages in the decades 1340–1350 and 1350–1360, respectively.

Table 6: Dowry Contracts in the Tuscan Town of Cortona, 1415-1436

<i>Contract characteristics</i>	<i>All contracts</i>	<i>Matched contracts</i>	
	Percentage	Shares ^d	Percentage
Payment(movables)	16.4	0.03	13.0
Payment (cash)	86.2	0.75	91.8
Payment (houses; shops)	12.5	0.01	7.2
Payment (land holdings)	45.7	0.21	40.5
Deferred payments	53.0	—	58.5
Contingent payments ^a	21.3	—	23.8
Profit sharing	0.6	—	0.9
Other terms ^b	8.8	—	4.5
Average dowry ^c	114.8	124.3	
Median dowry ^c	64	70	
<i>N</i>	328	222	

Sources: State Archives of Florence, Catasto and Notarile Antecosimiano.

^aThe majority of contingent payments were contingent upon the groom’s request. That is, the contract explicitly provided that a portion of the dowry was to be paid “when the groom will ask for it.”

^b Some marriage contracts specified other terms: in some instances, a portion of the dowry had to be paid by someone else than the bride’s parents (a charity, a relative, etc.).

^c Figures are in gold florins. The values for all contracts (first column) are calculated for the 292 contracts that provided the value of the dowry.

^d Average $\left(\frac{\text{value of type of payment}}{\text{value of total dowry}} \right)$.

Table 7: Bequest Behavior Toward Daughters in Florence, 1260–1435

Households with both sons and daughters			
Time period	Testators leaving bequests to daughters	Testators not leaving bequests to daughters	N^a
1260–1299	25%	75%	20
1420–1435	21%	79%	85

Sources: State Archives of Florence, Notarile Antecosimiano, 300 volumes of notarial deeds.

^a So far we coded all (59) last wills for the period 1260–1299. As indicated in the table, 20 testators has both sons and daughters. Meanwhile, we coded about 325 last wills of urban testators for the period 1420–1435 (about 30 percent of the last wills available for this time period). Of these 325 last wills, 85 testators had both sons and daughters.

Table 8: Dowries to Brides and Bequests to Bride’s Siblings in Tuscany, 1420–1435

Town	Median dowry to the bride (in gold florins)	Median “bequest” to bride’s siblings (in gold florins)	<i>N</i>
Cortona	70	53	222
Florence	500	468	315

Sources: State Archives of Florence, Notarile Antecosimiano.

Notes: The median “bequest” to the bride’s siblings has been calculated in the following way: we matched the bride’s household in the dowry contract with the corresponding household in the Florentine census of 1427. From there we obtained information regarding the bride household’s wealth and the number of siblings. We then divided the wealth by the number of siblings: this is an estimate of the bequest to each of the bride’s siblings. Also, notice that all figures are in gold florins. We chose to present all values in gold florins instead of lire (the money of account) because the data on wealth (and, consequently, the estimated bequests) were given in gold florins in the Florentine catasto of 1427.