Appendices for Online Publication

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A Additional Tables and Figures

Table 1: Bank leverage - alternative definition protection

	(Loans and Securities)/Capital						
	(1)	(2)	(3)	(4)	(5)		
Protection (lag)	0.091**	0.093*	0.077^*	0.104**	0.082*		
	(0.046)	(0.052)	(0.043)	(0.052)	(0.042)		
Observations	2854	2854	2784	2784	2784		
Adjusted R^2	0.255	0.284	0.300	0.289	0.313		
State*Year FE	Y						
County*Year FE	N	Y	Y	Y	Y		
Age at 1st mar. FE	N	N	N	Y	Y		
Age FE	N	N	Y	N	Y		

Note. Bank-year observations, 1867-1873 (pre-Panic). We regress a bank's leverage (measured by loans and securities over capital), deposits to capital and cash to deposit ratio on a dummy that has a value of 1 if a bank's president was married after the passage of a married women property law during all previous $\min\{t-1867,5\}$ years and 0 otherwise. We include a number of fixed effects. All estimates include a dummy for Boston and for different town sizes (<6,000, 6,000 - 50,000, >50,000). The cash to deposit ratio is winsorized at the 2.5th and 97.5th percentile. Standard errors (clustered at the individual bank level) in parentheses: *p < 0.1, ***p < 0.05, ****p < 0.01.

Table 2: Bank leverage - married bankers only

		(Loan	s and Sec	urities)/C	Capital	
	(1)	(2)	(3)	(4)	(5)	(6)
Protection	0.099**	0.101**	0.078**	0.105**	0.077**	0.042
	(0.040)	(0.045)	(0.039)	(0.045)	(0.039)	(0.027)
Observations	2631	2631	2607	2607	2607	2631
Adjusted R^2	0.257	0.281	0.298	0.287	0.310	0.842
Year FE						Y
State*Year FE	Y					
County*Year FE	N	Y	Y	Y	Y	
Bank FE	N	N	N	N	N	Y
Age at 1st mar. FE	N	N	N	Y	Y	N
Age FE	N	N	Y	N	Y	N

Note. Bank-year observations, 1867-1873 (pre-Panic). We regress a bank's leverage (measured by loans and securities over capital) on a dummy that has a value of 1 if a bank's president was married after the passage of a married women property law and 0 otherwise. We omit all bankers who are unmarried. We include a number of fixed effects. All estimates include a dummy for Boston and for different town sizes (<6,000,6,000-50,000,>50,000). Standard errors (clustered at the individual bank level) in parentheses: *p < 0.1, **p < 0.05, ***p < 0.01.

Table 3: Bank leverage - protection unambiguous

		(Loan	s and Sec	urities)/C	Capital	
	(1)	(2)	(3)	(4)	(5)	(6)
Protection2	0.099**	0.097**	0.074*	0.109**	0.082**	0.042
	(0.041)	(0.046)	(0.041)	(0.047)	(0.041)	(0.027)
Observations	2737	2737	2713	2713	2713	2737
Adjusted R^2	0.250	0.276	0.293	0.286	0.308	0.841
Year FE						Y
State*Year FE	Y					
County*Year FE	N	Y	Y	Y	Y	
Bank FE	N	N	N	N	N	Y
Age at 1st mar. FE	N	N	N	Y	Y	N
Age FE	N	N	Y	N	Y	N

Note. Bank-year observations, 1867-1873 (pre-Panic). We regress a bank's leverage (measured by loans and securities over capital) on a dummy that has a value of 1 if a bank's president was married after the passage of a married women property law, in either the state of marriage or state of residence, and 0 otherwise. We include a number of fixed effects. All estimates include a dummy for Boston and for different town sizes (<6,000,6,000-50,000,>50,000). Standard errors (clustered at the individual bank level) in parentheses: *p < 0.1, **p < 0.05, ***p < 0.01.

Table 4: Selection of bankers into banks

	(1)	(2)	(3)
	Protection	Protection	Protection
L.Log(Total Bank Assets) (z-score)	0.046		0.025
	(0.044)		(0.048)
L.(Loans and Securities)/Capital (z-score)		0.066	0.052
		(0.057)	(0.065)
Observations	142	142	142
Adjusted R^2	0.091	0.095	0.089
State FE	Y	Y	\mathbf{Y}

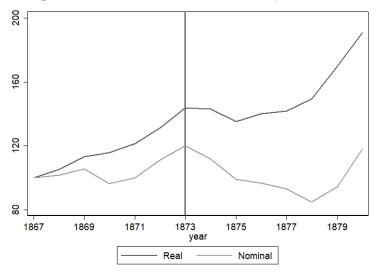
Note. New bank presidents, first year in office. We regress a banker's protection status (0: married before; 1: married after the passage of a married women property law) on a bank's size (measured by log total assets) and leverage (measured by loans and securities over capital), both lagged by one year. Linear probability model. Standard errors in parentheses: *p < 0.1, **p < 0.05, ***p < 0.01.

Table 5: Bank leverage - controlling for (relative) wealth

		(Loan	s and Sec	urities)/C	Capital	
	(1)	(2)	(3)	(4)	(5)	(6)
Protection	0.087**	0.087**	0.087**	0.087**	0.087**	0.087**
	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)
Log(Total HH wealth, 1870)		-0.001		-0.000		-0.000
,		(0.012)		(0.012)		(0.012)
Log(Wm), Win(2.5)			-0.009	-0.009		
			(0.021)	(0.021)		
Log(Wf/Wm)					0.012	0.012
					(0.015)	(0.015)
Observations	2472	2472	2472	2472	2472	2472
Adjusted R^2	0.281	0.280	0.280	0.280	0.281	0.281
County*Year FE	Y	Y	Y	Y	Y	Y
Age at 1st mar. FE	Y	Y	Y	Y	Y	Y
Age FE	Y	Y	Y	Y	Y	Y

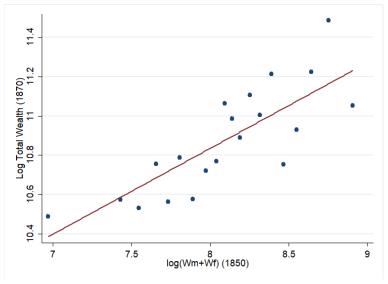
Note. Bank-year observations, 1867-1873 (pre-Panic). We regress a bank's leverage (measured by loans and securities over capital) on a dummy that has a value of 1 if a bank's president was married after the passage of a married women property law and 0 otherwise. We include controls for (1) household wealth in 1870 (2) the husband's familial wealth in 1850 and (3) the log difference between husband's and wife's 1850 familial wealth. We also include a number of fixed effects. All estimates include a dummy for Boston and for different town sizes ($<6,000,\ 6,000\ -\ 50,000,\ >50,000$). Standard errors (clustered at the individual bank level) in parentheses: *p < 0.1, **p < 0.05, ***p < 0.01.

Figure 1: U.S. Industrial Production, 1867-1880



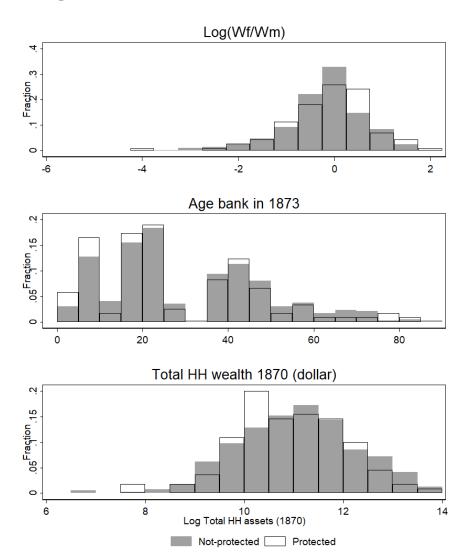
Note. Index numbers, 1867 = 100. Source: Davis (2004).

Figure 2: Relation between 1850 familial assets and 1870 household assets



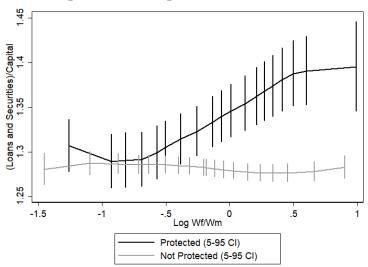
Note. This figure presents a binscatter of total household assets reported in the 1870 census against the sum of husband's and wife's familial assets constructed from the 1850 census (both in logs).

Figure 3: Distributions of selected banker characteristics



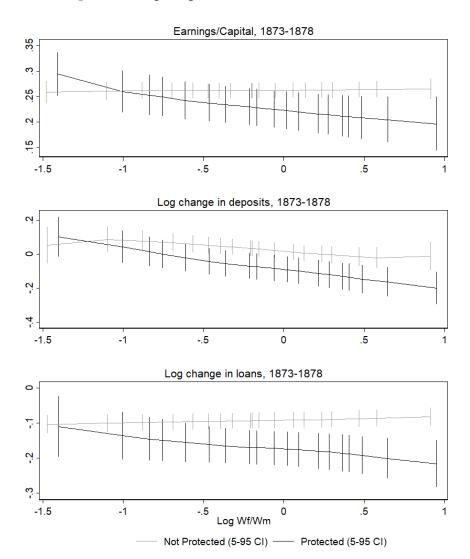
Note. Distibutions for bankers present in the sample before 1874. "Wf" and "Wm" are the wife's and husband's 1850 familial assets. "Log(Wf/Wm)" captures how wealthy the wife was at marriage relative to the husband. "Protected": married after a MWPA

Figure 4: Leverage and relative wealth



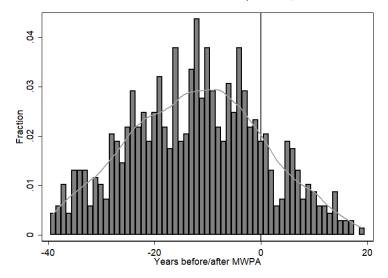
Note. Non-parametric local mean smoothing using kernel weighted means. Vertical lines indicate 5th-95th percentile confidence intervals. "Wf" and "Wm" are the wife's and husband's 1850 familial assets. "Log(Wf/Wm)" captures how wealthy the wife was at marriage relative to the husband. Before plotting, the x and y variables are residualized with the fixed effects and control variables of Table 5, Column 5, which includes the full set of fixed effects. "Protected": married after a MWPA

Figure 5: Ex post performance and relative wealth



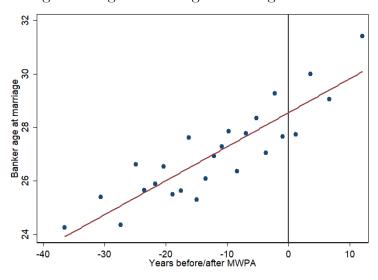
Note. Non-parametric local mean smoothing using kernel weighted means. Vertical lines indicate 5th-95th percentile confidence intervals. "Wf" and "Wm" are the wife's and husband's 1850 familial assets. "Log(Wf/Wm)" captures how wealthy the wife was at marriage relative to the husband. Before plotting, the x and y variables are residualized with the fixed effects and control variables of Table 7, Column 5, which includes the full set of fixed effects. "Protected": married after a MWPA.

Figure 6: Density year of marriage, before/after passage of a MWPA



Note. This figure gives the density of bank presidents' year of marriage in the sample, counted in terms of years before or after the passage of a MWPA. The figure shows no evidence of bank presidents postponing their marriage until after the passage of a law.

Figure 7: Age at marriage vs timing of MWPA



Note. This figure uses binscatter to plot the age at marriage against the year of marriage, counted in terms of years before or after the passage of a MWPA. First marriages only. Bank presidents married after a MWPA tended to be older. The figure shows no evidence that around the time of a MWPA, bank presidents tended to marry at a younger or older age.

B Double liability claims and household wealth

In this appendix, we analyze a sample of around a 100 bankers for whom we have information about the shareholdings in their banks. We first discuss whether this sample is representative. We then analyze whether, in this sample, potential double liability claims would ever endanger the wife's separate estate.

B.1 Sample

Bank examiners would sometimes report the shareholdings of bank presidents. This information is available for 125 bankers. It appears that the decision to report a president's shareholdings critically depended on the identity of the bank examiner. Table 6 reports the bank examiners in our sample, the number of banks they examined, the number of banks for whom they reported the president's shares, and their location. Data are written bank examiners' reports. The table shows that certain bank examiners were much more likely to report the president's shares than others; three examiners are responsible for 85% of observations. Closer inspection learns that these examiners generally provided more detail than others.

Bank examiners typically examined banks within one or two states. The bank examiners reporting president shareholdings were primarily active in Maine and New Hampshire. This means that our sample of banks with president shareholdings overweights these two states and is not necessarily representative. Table 7 reports measures of bank size and leverage. We first compare banks with president shareholdings to the sample as a whole. The banks in our restricted sample are typically smaller than the average bank, but in terms of leverage they look similar. We then reweight the banks in the overall sample using weights that correspond to the relative importance of each state in the sample of banks with president shareholdings. In this comparison, the banks in our restricted sample look similar on all accounts. This suggests that there is no particular selection of banks for which bank examiners reported president shareholdings.

B.2 Analysis

Next, we analyze whether, for our restricted sample, double liability claims would ever affect the wife's separate estate. We relate the banker's shareholdings to household assets reported in the 1870 census.

In case of bank failure, the banker would lose the value of its shares and could be taxed with a double liability claim amounting to the paid-in value of his shares. We value the bank

president's shares in 1870. We lack market prices for most banks. As an approximation, we take the book value of equity. We can infer the accuracy of our approximation for a sample of 52 Boston banks for which share prices are available. Figure 8 presents the distribution of the market-to-book ratio for these banks. Both the median and mean are close to one, and for 90% of the banks, the market-to-book ratio lies between 0.9 and 1.1. This indicates that the book value of equity is a good approximation of actual market value.

We divide the value of bankers' shareholdings plus the potential double liability claim by 1870 household assets. Figure 9 presents the distribution of this ratio. If we assume that half of the household assets were in the name of the wife, double liability claims would endanger the wife's assets for all bankers where the ratio exceeds 0.5. This is the case for 55% of bankers. We think of this as a conservative estimate. As we mention in the main text, 1870 household assets provide an upper bound on the amount of household wealth available in case of bank failure; census enumerators were instructed not to deduct any debts and reported gross asset values. Moreover, the value of household assets was typically not invested in risk-free assets and could depreciate heavily in states of the world in which the bank might fail.

We can refine this calculation using information about husband's and wife's familial assets. We assume that the husband's share in household assets equals the ratio of husband's familial assets (Wm) to the sum of husband's and wife's familial assets (Wm + Wf). In Figure 10, we divide the share value and double liability claim by our estimate of household assets in name of the husband. Now, double liability claims would endanger the wife's assets if the ratio exceeds one. This is the case for 50% of bankers.

Table 6: Bank examiners – president shares and location

Examiner	Total	With shares	CT	MA	ME	NH	RI	VT
C V Dearborn	76	50	0	0	0	76	0	0
Samuel F Humphrey	58	32	0	0	58	0	0	0
Noah Woods	49	24	0	0	49	0	0	0
A B Mygatt	223	10	124	0	0	0	99	0
George W Grandey	24	4	0	0	0	0	0	24
A R Camp	50	2	0	0	0	0	0	50
J W Magruder	4	2	2	2	0	0	0	0
Daniel Needham	125	1	0	125	0	0	0	0
E C Sherman	132	0	0	132	0	0	0	0
C R Ransom, J J Eddy	74	0	0	74	0	0	0	0
C O Billings	23	0	0	23	0	0	0	0
George Ripley	14	0	0	14	0	0	0	0
Geo W Hendee	2	0	0	0	0	0	0	2

Note. This table provides an overview of all bank examiners in our sample, the number of banks they examined, the number of banks for which they reported the president's shares, and the state in which the banks were located.

Table 7: Banks with president shares

	(1)		(2)		(3)	
Variable	N	Mean	N	Mean	N	Mean
Log(Total Bank Assets)	95	12.73	494	13.31	494	12.77
Log(Paid-in Capital)	95	11.72	494	12.28	494	11.76
Assets / Capital	95	2.14	494	2.12	494	2.14
(Loans and Securities) / Capital	95	1.30	494	1.35	494	1.30

Note. This table compares the size and leverage of the banks with information on the president's shares (1) to the overall sample (2), and the overall sample reweighted where the weights correspond to the relative importance of each state in the sub-sample of banks for which we have information on the president's shares (3). All information refers to 1873.

Figure 8: Market-to-book Boston banks, 1870

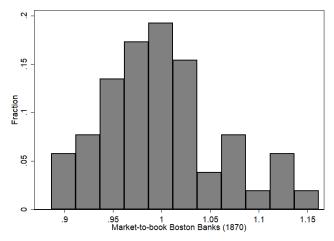


Figure 9: Share value and double liability claim over household assets

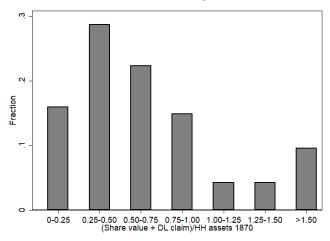
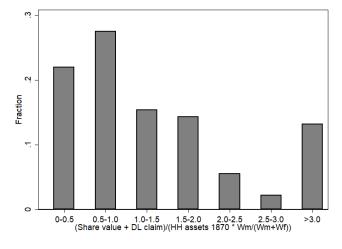


Figure 10: Share value and double liability claim over the husband's assets



C Model Details and Proofs

This section contains further detail and proofs of the model we sketched in the main text. We do not report an extension of the model in which we allow bank presidents to issue outside equity. In this extension, we assume that a banker can divert the bank's profits at some cost. To satisfy incentive compatibility, he can only issue outside equity up to a multiple of the capital he himself invests. Under this assumption, the key predictions of our baseline model remain.

C.1 Model Details

We repeat some of the exposition from the main text, so this appendix is self-contained.

We assume that a bank is managed by a single banker. For simplicity, we assume that the banker is the sole equity holder and has double liability. That is, in the case of default, a regulator can seize the banker's remaining personal assets, up to the amount initially invested in the bank.

We assume that the banker is risk-averse with log utility.¹ He has total household wealth W. Fraction $\alpha \in [0,1]$ represents the wife's separate property. For a banker married before the enactment of a MWPA $\alpha = 0$. Wealth is either invested in bank equity or in a risk free asset. For simplicity, we set the risk free rate to zero.

The banker is the sole equity holder. By law, banks require at least κ in capital, which the banker must invest from his own wealth.² Thus, $(1 - \alpha)W$ must be greater than κ . He can invest the remaining $(1 - \alpha)W - \kappa$ in additional bank equity (denoted s). Wealth held in the risk-free asset can be seized by the regulator in satisfaction of double liability claims. As a trustee of his wife's estate, the banker can also invest his wife's separate property (αW) in bank equity (denoted t). This exposes her to double liability claims as well.³ Crucially, if the wife's estate is not invested in the bank, it is protected from such claims.

The bank invests I which it funds with capital $\kappa + s + t$ and deposits d. Deposits are used in the payment system and, per unit of deposits, the bank incurs a management cost ε , which we assume is close to zero. Moreover, since there were no (corporate) income taxes in

¹Under different preferences that bound the banker's utility at zero consumption away from $-\infty$, we would obtain similar results if we assume (1) some upper bound on \overline{D} (the maximum amount of deposits a banker can issue) or (2) sufficiently decreasing returns to scale in the production technology. In both cases, the additional benefits from issuing more (risky) deposits in the good state would not outweigh the low level of utility in the bad state. We thank Daniel Ferreira for pointing this out.

²In reality, banks had minimum capital requirements, and bank presidents had to hold a (smaller) minimum amount of equity in the bank. We are collapsing these two minima into one for simplicity. This does not drive our results.

³ All results go through if we do not allow bankers to invest their wives' property in the bank.

the 19th century, there are no tax benefits to debt. This means that the banker, if otherwise indifferent, prefers capital over deposits.

There is a continuum of risk neutral depositors who, in aggregate, have up to $\overline{D} >> W$ available to deposit in the bank. In expectation, depositors receive the risk free rate.

The bank invests I in a risky linear production technology with payout

$$\widetilde{R} \in \{\mu - \sigma_j, \mu + \sigma_j\}$$
.

For simplicity, we assume that each payout occurs with equal probability. Expected returns are positive: $\mu-1>0$. A bank can chose between two projects $j\in\{1,2\}$ that have the same expected payout μ but $\sigma_1<\sigma_2$. In the bad state of the world there is a loss, $(\mu-\sigma_j)-1<0$. We put two restrictions on σ_j . First we assume that σ_j is small enough that, in risk-adjusted terms, the risky production technology has higher expected returns than the risk free asset:

$$(\mu - 1) > \frac{\sigma_j^2}{\mu} \text{ or } \sigma_j^2 < \mu(\mu - 1)$$

$$\tag{1}$$

Second, for simplicity alone, we assume that σ_j is large enough that the optimal level of risk free deposits is always feasible $(d^* \leq \overline{D})$:

$$\sigma_j^2 > (\mu - \frac{1}{2})(\mu - 1)$$
 (2)

This assumption also guarantees that the project is truly risky and generates losses in the bad state of the world, that is, $\mu - \sigma_j < 1.4$

We define *risk free deposits* as deposits that are repaid in each state of the world and *risky deposits* as deposits that are only fully repaid in the good state. Risky deposits pay an interest rate ρ in the good state that compensates for losses in the bad state.

Crucially, depositors are atomistic and cannot cooperate in disciplining the bank by setting the total amount of deposits they are willing to lend. In addition, the banker cannot commit ex ante to implementing project j = 1. Depositors cannot observe the actual project choice and the interest rate ρ cannot be made contingent on it.

The following tables summarize the balance sheets of the bank and banker, respectively.

⁴The model produces qualitatively similar results when we only assume that $\mu - \sigma_j < 1$ or $\sigma_j^2 > (\mu - 1)^2$. In this case, bankers with wealth W larger than some \widetilde{W} will be constrained in the amount of risk free deposits they can issue. This reduces the utility from risk free deposits. The optimal α^* above which it is optimal to issue risky deposits will be lower.

Bank's Balance Sheet					
Assets	Liabilities				
Investments I	Capital $\kappa + s + t$				
	Deposits $d_i \leq \overline{D}$				

Banker's Balance Sheet					
Assets	Liabilities				
Capital bank $\kappa + s + t \leq W$	Wife's separate property αW				
Risk free asset $(W - \kappa - s - t)$	Remaining household wealth $(1 - \alpha)W$				

Bankers married before the passage of a MWPA have no protected property ($\alpha = 0$). Bankers married after the passage of a MWPA have some protected property, that is, $\alpha \in [0,1]$. The banker must choose to issue risk free or risky deposits. In addition, he must choose which project to invest in.

We place certain restrictions on \overline{D}/κ and W. First, we assume that

$$\phi < \frac{\overline{D}}{\kappa} < \chi$$

where ϕ and χ are defined as follows:

$$\phi = \frac{(\mu + \sigma_1)}{\sigma_1 - (\mu - 1)}$$
$$\chi = \frac{\mu^2 - (1 - \sigma_1)^2}{\sigma_1^2 - (\mu - 1)^2} > \phi$$

The lower bound on \overline{D}/κ ensures that risky deposits are ever optimal, and the upper bound ensures that risk-free deposits are ever optimal.

Second, we assume that

$$(1 - \alpha)W \ge \kappa$$

and

$$W<\lambda\overline{D}$$

where λ is defined as

$$\lambda = \frac{2[\sigma^2 - (\mu - 1)^2]}{\mu - 1}\overline{D}$$

The lower bound on W ensures that the banker is able to meet the minimum capital requirement, and the upper bound ensures that risky deposits are ever optimal.

Proposition 1 Suppose that $\overline{D}/\kappa \in (\phi, \chi)$, and $(1 - \alpha)W > \kappa$, and $W < \lambda \overline{D}$. A banker will choose to issue risk free deposits and invest in project j = 1 if $\alpha < \alpha^*(W)$. He will issue risky deposits and invest in project j = 2 if $\alpha > \alpha^*(W)$.

Lemma 2 Bankers married after the passage of a MWPA are (weakly) more likely to (a) have higher leverage and (b) choose the riskier project j = 2 than bankers married before.

Lemma 3 The impact of a MWPA on total investment I is ambiguous.

C.2 Proofs

Proof. of Proposition 1

The proof has three components: (1) we derive the optimum under risk-free deposits; (2) we derive the optimum under risky deposits; (3) we derive conditions under which the banker prefers risky deposits.

1. Risk-free deposits

We proceed in three steps: (a) we derive the optimal level of investment under risk free deposits; (b) we prove that deposits are indeed risk free; (c) we derive the optimal level of deposits; (d) we show that the banker will always choose project j = 1.

a. Optimal level of investment

If the banker issues risk-free deposits, depositors will be paid back in either state of the world; thus, they do not require a compensation for potential losses. The banker's good and bad state consumption are given by:

$$\Pi_g = (\mu + \sigma_j)(\kappa + s + d) - d + (W - \kappa - s)$$
(3)

$$\Pi_b = (\mu - \sigma_j)(\kappa + s + d) - d + (W - \kappa - s)$$
(4)

We rewrite this as

$$\Pi_g = [(\mu - 1) + \sigma_j] I + W$$

$$\Pi_b = [(\mu - 1) - \sigma_i] I + W$$

where $I = \kappa + s + d$. Taking the FOC wrt I we get that

$$\frac{\sigma_j + (\mu - 1)}{\Pi_g} = \frac{\sigma_j - (\mu - 1)}{\Pi_b}$$

and therefore

$$I = \frac{\mu - 1}{\sigma_j^2 - (\mu - 1)^2} W \tag{5}$$

The assumptions we make on σ_j (equations 1 and 2) imply I is always positive.

b. Deposits are risk-free

The solution for I is consistent with risk free deposits. For deposits to be risk free we need that

$$[1 - (\mu - \sigma_i)]I < W$$

Plugging in the optimal solution for I, this condition reduces to:

$$\frac{\mu - 1}{\sigma_i + \mu - 1} < 1$$

which is always the case.

c. Optimal level of deposits

Administering deposits has a proportional cost ε and the banker will first use his own wealth and then issue deposits to reach investment level I. That is, he will set $s = W - \kappa$ and

$$d^* = \frac{\mu(\mu - 1) - \sigma_j^2}{\sigma_j^2 - (\mu - 1)^2} W \tag{6}$$

Equation (2) guarantees that $d^* \leq W$. Together with the fact that $w \leq \overline{D}$, this guarantees that optimal risk free deposits are always feasible.

d. Project choice

Utility under risk-free deposits, U^* , is equation to:

$$U^* = \frac{1}{2} \log \left(\frac{\sigma_j}{\sigma_j - (\mu - 1)} W \right) + \frac{1}{2} \log \left(\frac{\sigma_j}{\sigma_j + (\mu - 1)} W \right)$$

After some algebra, it can be shown that $\partial U^*/\partial \sigma_j$ is proportional to the following expression:

$$\frac{-1}{\sigma_j - (\mu - 1)} + \frac{1}{\sigma_j + (\mu - 1)}$$

Under the assumption $\mu - \sigma_j < 1$, this is always negative; thus, the banker will choose the less risky project (with lower σ).

2. Risky deposits

There are two cases to analyze, which depend on: (a) $(1 - \alpha) W \in [\kappa, 2\kappa)$; (b) $(1-\alpha)W \ge 2\kappa$. In the first case, the banker can meet the minimum capital requirement but not the associated double liability payment; in the second case, he can meet both. We analyze both cases separately.

a.
$$(1-\alpha)W \in [\kappa, 2\kappa)$$

We proceed in three parts: (i) we show that the banker will optimally keep his wife's property out of the bank if he issues risky deposits; (ii) we derive optimal risky deposits; (iii) we derive optimal project choice under risky deposits.

i. Decision to invest or not invest wife's property

Suppose that the banker issues risky deposits. Denote $\kappa + s$ and t the investment in the bank from the banker's and his wife's wealth, respectively. If the wife's assets are invested in the bank, the regulator can take double liability payments out of her estate as well. The banker will never find it optimal to invest his wife's separate property up to the point that she is not be able to cover the associated double liability, that is, $t > \alpha w/2$. Otherwise, the household would be faced with zero consumption in the bad state of the world.

Investing $t \in (0, \alpha w/2)$ is not optimal either. To see this, note that bad state consumption in the case of risky deposits is given by

$$\Pi_b = w - 2t \tag{7}$$

Good state consumption is given by

$$\Pi_g = (\mu + \sigma_j)(\kappa + s + t + d) - (1 + \rho)d + [(1 - \alpha)W - (\kappa + s) + \alpha W - t]$$
 (8)

where the interest and loans payments $(1+\rho)d$ are pinned down by

$$d = \frac{1}{2}(1+\rho)d + \frac{1}{2}\left[(\mu - \sigma_j)(\kappa + s + t + d) + (1-\alpha)W - (\kappa + s) + t\right]$$
(9)

Substituting this into Π_q yields

$$\Pi_a = 2(\mu - 1)(\kappa + s + d) + 2\mu t + (2 - \alpha)W \tag{10}$$

The banker faces the following maximization problem

$$\max_{s,t,d} \frac{1}{2} \Pi_g + \frac{1}{2} \Pi_b$$

The first order conditions with respect to s and d are identical and always positive:

$$FOC(d,s) = \frac{\mu - 1}{2(\kappa + s + d)(\mu - 1) + 2\mu t + (2 - \alpha)W} > 0$$

so $d = \overline{D}$ and $s = (1 - \alpha)W - \kappa$. The intuition for the latter result is that the banker faces unlimited liability with respect to his own property and will therefore lose all of his wealth in the bad state anyway. Therefore, it is optimal to invest all of his wealth in the bank where it earns a higher return in the good state.

We can show that the first order condition with respect to t is always negative:

$$FOC(t) = \frac{\mu}{2(\mu - 1)(\kappa + s + d) + 2\mu t + (2 - \alpha)W} - \frac{1}{\alpha W - 2t}$$

This is proportional to:

$$\mu \alpha W - 4\mu t - 2(\mu - 1)(k + s + d) - (2 - \alpha)W$$

which, after plugging in $d = \overline{D}$ and $s = (1 - \alpha)W - \kappa$, can be rewritten as

$$2(\mu - 1)\underbrace{(\alpha w - \overline{D})}_{<0} + w\underbrace{[\alpha - \mu(2 - \alpha)]}_{<0} - 4\mu t.$$

This is negative for any $t \in (0, \alpha w/2)$. This implies that the banker keeps all of his wife's separate property out of the bank: t = 0.

ii. Optimal risky deposits

Given that the banker's wife does not invest in the bank, the banker can invest at most his own wealth $(1 - \alpha)W$. If he doesn't invest this in the bank, the regulator will always be able to seize it. The interest rate on risky deposits is therefore pinned down by

$$d = \frac{1}{2}(1+\rho)d + \frac{1}{2}\left[(\mu-\sigma)(s+d) + (1-\alpha)W - \kappa - s\right]$$

$$(1+\rho)d = 2d - \left[(\mu-\sigma)(s+d) + (1-\alpha)W - \kappa - s\right]$$
(11)

The payout to the banker in the good state of the world is given by

$$\Pi'_{g} = (\mu + \sigma)(\kappa + s + d) - (1 + \rho)d + [(1 - \alpha)W - \kappa - s] + \alpha W$$

Plugging in for the interest rate we can rewrite this as

$$\Pi_a' = 2(\mu - 1)(\kappa + s + d) + (2 - \alpha)W \tag{12}$$

The payout in the bad state of the world is given by

$$\Pi_b' = \alpha W \tag{13}$$

The banker solves the following optimization problem:

$$\max_{s,d} \frac{1}{2} \log \Pi_g' + \frac{1}{2} \log \Pi_b'$$

Both FOCs are directly proportional to $2(\mu - 1) > 0$ and therefore the banker sets both s and d at their maximum value:

$$d = \overline{D}$$

$$\kappa + s = (1 - \alpha)W.$$

iii. Optimal project choice

We show that under risky deposits it is optimal for the banker to invest in project j = 2. The banker's bad state consumption is pinned down by αW and does not rely on the project choice. The banker's good state consumption can be written as

$$\Pi_{a}' = (\mu + \sigma_{i}) \left[(1 - \gamma)W + \overline{D} \right] - (1 + \rho)\overline{D} + \alpha W \tag{14}$$

Because the banker lacks commitment, we can take the interest rate ρ as given. This expression shows that the banker gains from picking the highest possible σ_j . Depositors anticipate this and, in equilibrium, ρ will reflect this.

b.
$$(1-\alpha)W > 2\kappa$$

In this case, the banker's liability with respect to his own wealth might be limited. In particular, if he decides to invest the minimal amount κ , he will always be able meet his double liability obligation. At the same time, the solution from (2a) is still available to the banker. In particular, he can always make additional investments s in the bank such that $(1-\alpha)W < 2(\kappa+s)$, in which case he effectively faces unlimited liability. We show that, as long as $\overline{D} < \chi \kappa$, it will never be optimal for the banker to invest the minimal amount κ

and it is better to invest all of his wealth in the bank. As a result, the model has the same solution as (2a).

Formally, when $(1 - \alpha) W \ge 2\kappa$, the banker has four options if he decides to issue risky deposits. These can be summarized by their respective $\Pi'_b s$ (the associated consumption in the bad state of the world):

$$\Pi_b' = (1 - \alpha)w - (\kappa + s) - \min\left[\kappa + s, (1 - \alpha)w - (\kappa + s)\right]$$

$$+\alpha w - t - \min\left[t, \alpha w - t\right]$$
(15)

The terms in square brackets capture the double liability payments. Again, $\kappa + s$ and t are the banker's and his wife's investment in the bank, respectively.

A Neither the banker nor his wife can cover their double liability obligations:

$$2(\kappa + s) > (1 - \alpha)w$$
$$2t > \alpha w$$

This leaves the banker with zero consumption in the bad state and can never be an equilibrium.

B Both the banker and his wife can cover their double liability obligations:

$$2(\kappa + s) < (1 - \alpha)w$$
$$2t < \alpha w$$

C The banker cannot cover his double liability, but his wife can:

$$2(\kappa + s) > (1 - \alpha)w$$
$$2t < \alpha w$$

D The banker can cover his double liability, but his wife cannot:

$$2(\kappa + s) < (1 - \alpha)w$$
$$2t > \alpha w$$

We proceed in two steps: (i) we solve for options B and D and show that the former always dominates (this comes from the fact that the banker himself has to pay the minimum

capital requirement κ .); (ii) we show that as long as $\overline{D} < \chi \kappa$, the banker will always prefer risk-free deposits over option B. Therefore, since option C is always available, the relevant choice is between C and risk-free deposits. This is identical to case (2a) above.

- i. Choice between B and D
- Solution to B

Bad state consumption is given by

$$\Pi_b' = W - 2(\kappa + s + t) \tag{16}$$

Good state consumption is given by

$$\Pi_{q}' = (\mu + \sigma_{j})(\kappa + s + t + d) - (1 + \rho)d + [(1 - \alpha)W - (\kappa + s) + \alpha W - t]$$
 (17)

The interest rate is pinned down by

$$d = \frac{1}{2}(1+\rho)d + \frac{1}{2}[(\mu - \sigma_j)(\kappa + s + t + d) + \kappa + s + t]$$
(18)

Good state consumption can therefore be rewritten as

$$\Pi_q = 2\mu(\kappa + s + t) + 2(\mu - 1)d + W \tag{19}$$

This means that, under B, the banker's utility does not depend on α . The banker faces the following maximization problem:

$$\max_{s,t,d} \frac{1}{2} \Pi_g + \frac{1}{2} \Pi_b$$

The first order condition with respect to d is always positive:

$$FOC(d) = \frac{\mu - 1}{2\mu(\kappa + s + t) + 2d(\mu - 1) + W} > 0$$

and therefore $d = \overline{D}$. The first order conditions with respect to s and t are given by:

$$FOC(s,t) = \frac{\mu}{2\mu(\kappa + s + t) + 2d(\mu - 1) + W} - \frac{1}{W - 2(\kappa + s + t)}$$

This is proportional to:

$$\mu W - 4\mu(\kappa + s + t) - 2d(\mu - 1) - W$$

Using the fact that $d = \overline{D}$ and re-arranging, this becomes

$$(\mu - 1)(W - 2\overline{D}) - 4\mu(\kappa + s + t) < 0$$

Therefore, FOC(s,t) < 0, and s = t = 0. Utility is given by

$$U_B = \frac{1}{2} \log \left(\left(2\mu \kappa + 2(\mu - 1)\overline{D} + W \right) (W - 2\kappa) \right)$$
 (20)

• Solution to case D

In this case, the wife defaults and the husband does not. This is entirely analogous to part (2a). It follows directly from the associated proofs that:

This implies the following solutions for d, t, and s:

$$d = \overline{D} \tag{21}$$

$$t = \alpha W \tag{22}$$

$$s = 0 (23)$$

Notice that the husband will still invest κ , as required by law.

Utility is given by

$$U_D = \frac{1}{2} \log \left(\left(2\mu \kappa + 2(\mu - 1)\overline{D} + (1 + \alpha)W \right) \left((1 - \alpha)W - 2\kappa \right) \right)$$
 (24)

• B always dominates D

The utilities U_B and U_D are given by (20) and (24), respectively. After some algebra, it can be shown that $U_B > U_D$ if

$$2\mu\kappa + 2(\mu - 1)\overline{D} + (1 + \alpha)W > (1 - \alpha)W - 2\kappa$$

which is always the case.

ii. As long as $\overline{D} < \chi \kappa$, risk free deposits dominate B

Risk free deposits dominate if

$$\zeta W^2 > U_B$$

with

$$\zeta = \frac{\sigma_1^2}{\sigma_1^2 - (\mu - 1)^2} \tag{25}$$

or

$$(\zeta - 1) W^2 - 2(\mu - 1)(\kappa + \overline{D})W + 4\kappa \left[\mu \kappa + (\mu - 1)\overline{D}\right] > 0$$

Given the shape of the quadratic, this will always be the case as long as

$$(\mu - 1)^2 (\kappa + \overline{D})^2 < 4(\zeta - 1) \left[\mu \kappa + (\mu - 1) \overline{D} \right] \kappa$$

Using (25) and defining $v = \overline{D}/\kappa$, we can rewrite this as

$$\left[\sigma_1^2 - (\mu - 1)^2\right]v^2 - 2\left[(\mu + \sigma_1)(\mu - \sigma_1) - 1\right]v - \left[(\mu + 1)^2 - \sigma_1^2\right] < 0$$

Given the shape of the quadratic, this will hold as long as

$$\frac{\overline{D}}{\kappa} = v < \frac{\mu^2 - (1 - \sigma_1)^2}{\sigma_1^2 - (\mu - 1)^2} = \chi \tag{26}$$

So, the solution for optimal risky deposits from (2a) holds in this case.

3. Choice between risky and risk free deposits

We proceed in two steps: (a) we derive conditions under which risky deposits are optimal; (b) we show that risky deposits are feasible whenever they are optimal.

a. Risky vs risk-free deposits

To determine the circumstances under which it will be optimal to issue risky deposits, we compare the banker's utility under risky and risk free deposits.

Recall that, if the banker issues risk free deposits, consumption in the good and bad state is given by

$$\Pi_g = \frac{\sigma_1}{\sigma_1 - (\mu - 1)} W$$

$$\Pi_b = \frac{\sigma_1}{\sigma_1 + (\mu - 1)} W$$

If the banker issues risky deposits, consumption in the good and bad states is given by

$$\Pi'_{g} = 2(\mu - 1)\overline{D} + [2\mu - \alpha(2\mu - 1)]W$$

$$\Pi'_{h} = \alpha W$$

Risky deposits are optimal iff

$$f(\alpha) = \Pi_g \Pi_b - \Pi_g' \Pi_b' < 0 \tag{27}$$

$$= \alpha^2 (2\mu - 1)W - 2\alpha \left[(\mu - 1)\overline{D} + \mu W \right] + \zeta W < 0 \tag{28}$$

with

$$\zeta = \frac{\sigma_1^2}{\sigma_1^2 - (\mu - 1)^2} \tag{29}$$

We now check whether $f(\alpha)$ is ever negative for $\alpha \in [0,1]$. Note that

$$f'(\alpha) = -2(\mu - 1)(\overline{D} - W) - 2(1 - \alpha)(2\mu - 1)W$$
(30)

Because we have assumed that $\overline{D} > W$, this expression is negative for all $\alpha \leq 1$. So, we know that f(0) > 0, and $f'(\alpha) < 0$ for $\forall \alpha \in [0,1]$. Therefore, given the shape of the quadratic, there is at most one solution to $f(\alpha) = 0$ with $\alpha^* \in [0,1]$ (the smaller root). Moreover, this solution will always exist as long as f(1) < 0.

Under what circumstances is f(1) < 0?

$$f(1) = (2\mu - 1)W - 2[(\mu - 1)\overline{D} + \mu W] + \zeta W < 0$$
(31)

$$\Rightarrow W < \frac{2[\sigma^2 - (\mu - 1)^2]}{\mu - 1} \overline{D} \equiv \lambda \overline{D}$$
 (32)

So, under restriction (31), there exists an $\alpha^*(W) \in (0,1)$ such that risk-free deposits are optimal when $\alpha < \alpha^*$ and risky deposits are optimal when $\alpha > \alpha^*$.

b. Risky deposits feasible when optimal

First, we require a restriction on \overline{D}/κ in order for risky deposits to ever be possible. In particular,

$$\frac{\overline{D}}{\kappa} > \frac{\mu - \sigma_1}{1 - (\mu - \sigma_1)} \equiv \phi \tag{33}$$

This is equivalent to the following:

$$(\mu - \sigma_1)(\overline{D} + \kappa) < \overline{D}$$

If this condition is violated, then returns on deposits and the minimum capital requirement in the bad state are sufficient to repay depositors, and issuing risky deposits is mechanically impossible.

Next we show that, as long as the previous condition is satisfied, it always feasible to issue risky deposits when it is optimal to do so. Risky deposits are feasible as long as

$$(\mu - \sigma_j)[(1 - \alpha)W + \overline{D}] < \overline{D}$$

or

$$\alpha > 1 - \frac{1 - (\mu - \sigma_j)}{\mu - \sigma_j} \frac{\overline{D}}{W} = \widetilde{\alpha}$$
 (34)

As long as $\widetilde{\alpha} \leq \alpha^*$, risky deposits are feasible whenever they are optimal. We plug $\widetilde{\alpha}$ into function f() defined by (27). Given the shape of the quadratic, $f(\widetilde{\alpha}) \geq 0$ implies that $\widetilde{\alpha} \leq \alpha^*$. We derive $f(\widetilde{\alpha})$ by starting from the original expressions for Π'_g and Π'_b :

$$\Pi_g'(\widetilde{\alpha}) = (\mu + \sigma_j) \left[(1 - \widetilde{\alpha})W + \overline{D} \right] - \overline{D} + \widetilde{\alpha}W$$

$$= W + \frac{\sigma_j + (\mu - 1)}{\mu - \sigma_j} \overline{D} \tag{35}$$

$$\Pi_b'(\widetilde{\alpha}) = \widetilde{\alpha}W$$

$$= W - \frac{\sigma_j - (\mu - 1)}{\mu - \sigma_j}\overline{D}$$
(36)

From here it follows that

$$\Pi'_g \Pi'_b(\widetilde{\alpha}) = W^2 - \frac{\sigma_j^2 - (\mu - 1)^2}{(\mu - \sigma_j)^2} \overline{D}^2 + \frac{2(\mu - 1)}{\mu - \sigma_j} W \overline{D}$$

Function f() is defined as

$$f(\alpha) = \Pi_a \Pi_b - \Pi'_a \Pi'_b$$

Plugging in for $\tilde{\alpha}$, we arrive at

$$f(\widetilde{\alpha}) = (\zeta - 1)W^2 - \frac{2(\mu - 1)}{\mu - \sigma_j}W\overline{D} + \frac{\sigma_j^2 - (\mu - 1)^2}{(\mu - \sigma_j)^2}\overline{D}$$
(37)

Given the shape of the quadratic, this expression is weakly positive as long as the discriminant is weakly negative. That is

$$\frac{(\mu - 1)^2}{(\mu - \sigma_j)^2} \le (\zeta - 1) \frac{\sigma_j^2 - (\mu - 1)^2}{(\mu - \sigma_j)^2}$$

Plugging in for ζ from (29), it is straightforward to show that this expression holds with equality. This implies that $f(\widetilde{\alpha}) \geq 0$.

Proof. of Lemma 2

We define leverage as the investment-to-capital ratio: $I/(\kappa + s)$. We derive the optimal level of capital and deposits for the two cases of risk free and risky deposits and show that leverage is strictly higher under risky deposits.

1. Risk free deposits

In this case, it is optimal for the banker to invest all household wealth: $\kappa + s = W$. Total investment I is given by equation (5) (details are in the proof of Proposition 1). Leverage is given by

$$\frac{I}{\kappa + s} = \frac{W + d}{W} < 2$$

The inequality follows from assumption (2) and the expression for d from equation (6).

2. Risky deposits

If the banker decides to issue risky deposits, it must be that $(1-\alpha)W \ge \kappa$. It is optimal for the banker to invest all of his wealth, except his wife's separate property, and therefore $\kappa + s = (1-\alpha)W$. Total investment amounts to $(1-\alpha)W + \overline{D}$ (details are in the proof of Proposition 1). Leverage is given by

$$\frac{I}{\kappa + s} = \frac{(1 - \alpha)W + \overline{D}}{(1 - \alpha)W} > 2$$

where the inequality follows from the fact that

$$\overline{D} >> W > (1 - \alpha)W$$

For bankers married before a MWPA, $\alpha = 0$. For some bankers married after a MWPA, $\alpha > \alpha^*$. So, the introduction of a MWPA will induce these bankers to shift from risk-free to risky deposits, which will cause them to be more highly levered.

Proof. of Lemma 3

- a) The fact that bankers issue less equity after the passage of a MWPA follows directly from the proof of Proposition 1.
- b) The impact of a MWPA on total investment is ambiguous. Under risk free deposits total investment is given by equation (5). Under risky deposits it is given by $(1-\alpha)W + \overline{D}$.

Bankers married after a MWPA who opt for risky deposits will invest more than those married before iff

$$\frac{\overline{D}}{W} > \alpha + \frac{\mu(\mu - 1) - \sigma_1^2}{\sigma_1^2 - (\mu - 1)^2}$$

where the second part of the expression is strictly positive as $\sigma_1^2 < \mu(\mu - 1)$. Whether this expression holds or not depends on the exact values of W, \overline{D} and α .

D Historical Background Married Women's Property Laws

D.1 Equity law and pre- and postnuptial agreements

Under the traditional common law there was only limited protection of the wife's property. Only the principal value of the wife's real estate was protected; the fruits that the real estate produced and all other forms of (personal) property vested unconditionally in the husband and could be seized by his creditors. In theory, couples could sign pre- and postnuptial agreements to remedy this. In practice, these instruments were seldom used in New England. Prenuptial agreements were void under the common law and could only be enforced in a court of equity (Warbasse 1987, p. 29). This was a separate legal doctrine originally set up in England to administer cases where the strict application of the common law would have led to inequitable outcomes. Crucially, unlike common law, equity did have not have a clear set of rules and enforcement was jurisprudence based only. In addition, equity law was usually administered by separate chancery courts. By the mid-19th century, equity law was relatively well established in a number of U.S. states, in particular New York, but not in New England. Conflicts with the English crown in colonial times had prevented the establishment of separate chancery courts (Salmon 1986, p. 121).⁵ By 1840 all states in New England had given common law courts the right to administer equity, but they dealt with very few cases and equity jurisprudence particular to New England was virtually non-existent. This led to significant uncertainty about whether ante-nuptial agreements would be enforced (Warbasse 1987, p. 38, 42-5, 185-8; Salmon 1986, p. 139-40). Though there is evidence that in certain cases prenuptial agreements were enforced⁷, other cases suggest that enforcement was far from certain. For example, in 1842, the Supreme Court of Connecticut stated that "the doctrines of courts of equity as to the nature and extent of the liability of the separate estate of a married woman for her [husband's] debts, are too artificial in their texture, and too complicated in their details, for the simplicity of the practice in courts of law" (14 Conn 501)⁸. As a consequence of this legal ambiguity, "inhabitants of [New England] rarely resorted to trusts and marriage settlements" (Warbasse 1987, p. 188).

⁵Initially, the State constitutions of Connecticut, Maine, Massachusetts and New Hampshire did not allow for the establishment of equity (Jenson 1979, p. 146).

⁶Even in states where equity was well established, the enforcement of pre-marital contracts was problematic. According to Jenson (1979, p. 148), "the intricacies of the separate equitable estate (...) confused even the best of legal minds. (...) At times courts [of equity] refused to enforce marriage settlements because of inconsistency, uncertainty, or because they were unintelligible."

⁷See for example 17 Conn 201 (1845) and 19 Conn 272 (1848)

 $^{^{8}}$ Other examples of non-enforcement are in 14 Conn 99 (1840), 19 Conn 171 (1848), and 24 Conn 165 (1855)

In a similar vein, courts did not favor postnuptial agreements where one spouse would gift property to the other, even though there were openings in equity law for such agreements (Warbasse 1987, p. 33). Under the doctrine of common law a couple was a single legal entity and spouses could therefore not contract with each other. Courts were often concerned that debtors would write such contracts to defraud creditors (Warbasse 1987, p. 187). In 1843, the Connecticut Supreme Court invalidated a postnuptial agreement referring to older case law. The judge states that "if more loose or liberal views of the nature and legal effect of the marriage relation, have been entertained, in later times, either by the legislature or the public; until they shall be made to bear upon the courts, by some definite legislative act, we must abide by the rules of the common law" (15 Conn 587). ¹⁰

D.2 General downside protection

Double liability meant that, as large shareholders, bank presidents had a significant exposure to downside risk. There were some general forms of personal downside protection that would have limited liability, but these were either limited or hard to obtain.

First, there was a federal bankruptcy regime in place between March 1867 and September 1878. The Civil War had forced many borrowers into default and a temporary federal bankruptcy regime was set up to facilitate an orderly workout of these insolvencies that often spanned multiple states. Upon bankruptcy, a debtor had to surrender all assets to a creditor-appointed assignee who was to liquidate the estate. If the borrower fully cooperated he could obtain a discharge of any remaining unsecured debt. In addition, the law exempted \$500 of personal property from the seizure of creditors (Warren 1935). These came on top of homestead exemptions that ranged between \$0 (Rhode Island) and \$800 (Massachusetts) (Farnham 1938). The federal bankruptcy system was set to expire in 1873, but was renewed for another five years in response to the Panic of that year (Warren 1935, p. 120-1). The exempted amounts (at most \$1,300) were relatively small compared to median household assets reported by bank presidents in the 1870 census of \$50,000.

For the elite, there was an additional form of bankruptcy regime: testamentary trusts. Since the beginning of the 19th century, "the Brahmin Caste of New England' had bequeathed a substantial fraction of their wealth in the form of family trusts. A Massachusetts Supreme Court ruling in 1873 established that the assets in these trust funds could not be seized by the beneficiaries' creditors. An 1875 Federal ruling even allowed trusts to protect the income these assets generated. As a result, some of the elite's wealth was protected in bankruptcy. At the very least, it would survive intact and could be passed on to the next

⁹See, for example, 62 Conn 448 (1893).

¹⁰Other examples are in 93 Mass 345 (1865), 102 Mass 246 (1869) and 112 Mass 99 (1873)

generation. Setting up a testamentary trust was costly. Their use, therefore, appears to have been limited outside the upper classes (Dobkin Hall 1973, in particular p. 236 and 309).

D.3 Married Women Property Acts

During the first half of the 19th century, the perception about the role of women slowly changed. In particular, state legislatures felt that women should be protected from the business risks taken by their husbands or from potentially irresponsible behavior (Warbasse 1987). In New England, the uncertain position of equity law made it essential for state legislatures to pass specific married women property acts (MWPAs) that would protect married women's assets. For example, Salmon (1986, p. 140) states that "the long history of opposition to chancery courts in Massachusetts (...) made legislative clarification on women's separate estates a necessity." The debate in Rhode Island about the passage of such a law in February 1844 is well recorded and particularly informative about the motivation for these law changes. One of the proponents of the new legislation stated that "the old common law of England on this subject has been long practically repealed. We cling to the old doctrine in this state, when, in fact, the good sense of civilized, enlightened England has practically done away with it. [Under common law] a wife is compelled to sit by and see [her property] wasted and ruined without any other power than that of remonstrance and reproach. (...) Because property in this country is so fluctuating, where the rich men of today are poor men tomorrow, it is fit that the little property which a wife shall bring with her shall not be subjected to the fluctuations of business and the hazards of speculation."

Table 1 in the main texts documents all law changes that protected a married woman's assets by default.¹¹ These law changes provided a sharp change in the legal regime underpinning marriage. Salmon (1986, p. 140), for example, mentions that the new Connecticut law "represented a radical step forward for the women of the state, who previously had experienced difficulty in obtaining even the protection of equitable principles designed primarily for use of the wealthy."

The next section reproduces the relevant acts we use in the paper. A reading of these laws makes it clear that the primary goal of these laws was to ensure that the separate property of the wife was not liable for claims against the husband. This protection was only extended to couples married after the passage of the law. This is most succinctly summarized by the Act Maine passed in 1844:

¹¹Massachusetts and New Hampshire were relatively late to introduce this legislation as they had first opted to pass laws that gave prenuptial agreements full legal standing (in 1845 and 1847 respectively). Vermont was relatively late as it had first opted to pass a law solely protecting the profits for a wife's real estate (in 1847).

"Hereafter, when any woman possessed of property, real or personal, shall marry, such property shall continue to her notwithstanding her coverture, and she shall have, hold and possess the same, as her separate property, exempt from any liability for the debts or contracts of her husband." (Emphasis added)

A number of other issues stand out from the MWPAs. First, most acts left the traditional "common law disabilities" of the wife in place. They did not explicitly give women the right to contract with respect to their own property. This was only accomplished by later laws (Chused 1983). As a result, the husband remained the manager of the wife's property. Some laws made this explicit. For example, the Connecticut Act of 1849 stipulated that "the husband shall be entitled to the rents, be taken for profits, and interest of [his wife's] estate during his life." The laws did give women some influence over how the husband was supposed to manage her separate estate. The same Connecticut MWPA stipulated that a husband could only sell his wife's property if "the wife shall join in a written conveyance thereof." An exception is the Massachusetts Act of 1855 that did give married women the explicit right to contract in their own name. However, even under this law husbands retained some of their influence on their wife's property. In particular, "no conveyance of any real property (...) and no conveyance of any shares in any corporation, shall be valid, without the assent, in writing, of her husband".

Second, the laws clearly stipulate that they do not cover the property that a married woman may have obtained through her husband. For example, the Maine MWPA of 1844 excludes property that "in any way came from the husband after coverture." This stipulation of the law was meant to prevent fraudulent conveyance, that is, a husband trying to protect his assets by placing them in the wife's name.

Third, there is ambiguity over which law applied to couples married outside the state of residence. Only two states comment on this issue and they seem to contradict each other. The Massachusetts MWPA indicates that the law of the state of marriage applies:

"Any woman who shall have been married out of this State, shall, if her husband afterwards become a resident within this Commonwealth, retain all the rights as to property which she may have acquired by the laws of any other State or country."

However, the New Hampshire state statute of 1853 (not reproduced here) indicates that the law of the state of residence applies:

"If the husband of such woman shall become a citizen of this State, and they shall cohabit together, the fact of his becoming such citizen and such cohabitation shall have the same effect upon any contract or business of the wife, or upon any suit by or against her, as if the marriage between them had first been solemnized at the time of his becoming a citizen of this State."

The only case law we found on the subject comes from Connecticut. In Jones v Aetna (14 Conn 501), a case from 1842, the couple in question was married in Canada and the judge upheld Canadian law. Similarly, in Smith v Chappel (31 Conn 589), a case from 1863, a couple was married in England and the judge upheld English law. Though these cases deal with marriages solemnized abroad, they suggest that the law of the location in which a couple was married was the relevant one.

The available case law indicates that the state's courts consistently enforced the new laws, even if they had their own doubts about the law.¹² For example, in 1863 a Connecticut judge made explicit reference to the state's married women property act to refuse a creditor to seize a wife's assets as satisfaction for her husband's debts: "The harsh features of the common law in relation to the right of married women to hold and control property, have been greatly modified by statute in this country. (...) We have no doubt that a debt due to the wife for her personal services (...) it is not liable to be taken as the property of her husband" (31 Conn).

At the same time, the courts left no doubt that the new laws should not be applied retroactively. Only couples married after the legal change could request for the law to be applied. For example, a 1856 Connecticut court mentions that "the statutes of 1849, Ch. 20, 1854, Ch. 37, and 1855, Ch. 43, are prospective merely in their operation, and have no bearing on the present case" (25 Conn 154). In 1864 a Connecticut judge indicated that "it must be conceded that (...) at common law no title would accrue [to the wife] by force of the marriage (...) unless by force of the statute of 1855. That statute was enacted before the marriage took place, and is applicable to it." (32 Conn 1).

D.4 The relevant MWPAs in full text

Connecticut The state legislature in Connecticut initially decided to protect the revenues from the wife's real estate from claims against the husband. Under common law the real estate itself was already protected; the Act of 1845 extended this to the revenues.

¹²In 1856 a Connecticut judge stated: "Whether the statute law has not, in its desire to protect the property of the wife as if it was all to be to her ultimate sole and exclusive use, carried the doctrine too far, and given to the wife too much individuality, we will not inquire; experience will be our best instructor" (25 Conn 154).

ADDITIONS TO "AN ACT CONCERNING THE DOMESTIC RELATIONS" JUNE 10, 1845 (exact date from Kelly (1880))

Section 7. The interest of a married man in the real estate of his wife, belonging to her at the time of their inter-marriage, or which she may have acquired by devise or inheritance during coverture, shall not be liable to be taken by execution against him, during the life of the wife, or the life or lives of children, the issue of such marriage; provided, that nothing herein contained, shall affect the remedy upon any contract made prior to the first day of July, 1845.

In 1849, the Connecticut legislature extended the protection to personal (movable) property. The 1870 census indicates that a large share of the household wealth reported by bank presidents was in the form of personal property. We therefore use this law in the paper.

ADDITIONS TO "AN ACT CONCERNING THE DOMESTIC RELATIONS", JUNE 22, 1849

Section 1. All personal estate, which shall hereafter accrue, during coverture, to a married man, in right of his wife, by virtue of bequest to her, or distribution to her, as heir at law, and all property derived from the sale or reinvestment thereof, shall vest in him in trust for the use of the wife; and upon his decease, if undisposed of as hereinafter mentioned, shall vest in the wife, if living, or if not, then in her devisees, legatees, or heirs at law.

Section 2. The husband shall be entitled to the rents, be taken for profits, and interest of such estate during his life; and such rents, profits, and interest, shall not be liable to be taken, by any legal process, for the debts of the husband, during the life of the wife, except for debts contracted by him for the support of the wife and her children, after such estate shall have vested in him as aforesaid.

Section 3. No sale or transfer, by the husband, of any such estate, or, during the life of the wife, of his interest therein, shall be valid, unless the wife, if living, or if she is dead, those in whom her estate shall have vested, or the guardians of such as are not of full age, shall join in a written conveyance thereof; and all reinvestments shall be in the name of the husband, describing him trustee.

Section 4. The avails of any such estate, if disposed of as aforesaid, may be expended by the husband for the support of the wife, or the issue of their marriage, and may be otherwise disposed of during her life, with her written assent, without liability to account therefor.

Section 5. The court of probate of the district in which such trustee resides, shall have power, upon the written application of the wife, or of her devisees, legatees, or heirs at law, who have an interest in such estate, to call such trustee to account, and may, at any time, require him to give bond with surety, payable to the judge of said court and his successors, for the faithful performance of such trust, or the security of such estate, and may remove such trustee and appoint another in his stead, in such manner and for such reasons as are prescribed in 25th section of "An Act for the Settlement of Estates, Testate, Intestate and Insolvent;" and also for neglecting or refusing to apply the income of said estate to the support of the wife and her children; and a removal for said last mentioned cause shall divest said husband of all interest in said estate; and any person aggrieved by any order of such court, in relation to such trustee, or trust estate, shall have the same right of appeal to the superior court, as is prescribed in the 64th, 65th, 66th, and 67th sections of "An Act relating to Courts."

This law left some ambiguity about the legal status of the personal property the wife owned at the time of marriage. Most likely, the legislature meant to protect this as well, but the legal wording was sufficiently unclear to warrant the passing of another act 1854 clarifying the issue.

ADDITIONS TO "AN ACT CONCERNING THE DOMESTIC RELATIONS", 1854, CLARIFICATION

That the several provisions of the act of 1849, approved June 22d, 1849, relative to the property and estate of married women, be, and the same are hereby extended and applied to all property owned by any woman previous to the time of her marriage.

Maine

AN ACT TO SECURE TO MARRIED WOMEN THEIR RIGHTS IN PROP-ERTY.

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Section 1. Any married woman may become seized or possessed of any property, real or personal, by direct bequest, demise, gift, purchase or distribution, in her own name, and as of her own property; provided, it shall be made to appear by such married woman, in any issue touching the validity of her title, that the same does not in any way come from the husband after coverture.

- Section 2. Hereafter, when any woman possessed of property, real or personal, shall marry, such property shall continue to her notwithstanding her coverture, and she shall have, hold and possess the same, as her separate property, exempt from any liability for the debts or contracts of her husband.
- Section 3. Any married woman possessing property by virtue of this act, may release to the husband the right of control of such property, and he may receive and dispose of the income thereof, so long as the same shall be appropriated for the mutual benefit of the parties.

Approved March 22, 1844.

Massachusetts

AN ACT TO PROTECT THE PROPERTY OF MARRIED WOMEN.

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

- SECT. 1. The property, both real and personal, which any woman, who may hereafter be married in this Commonwealth, may own at the time of her marriage, and the rents, issues, profits and proceeds thereof, and any real or personal property which shall come to her by descent, devise or bequest, or the gift of any person except her husband, shall remain her sole and separate property, notwithstanding her marriage, and not be subject to the disposal of her husband, or liable for his debts.
- SECT. 2. The husband of any woman, hereafter married in this Commonwealth, shall not be liable to be sued for any cause of action which originated against her before marriage; but she shall be liable to be sued for the same as if she were sole, and her property shall be liable to be attached and taken on execution in the same manner.
- SECT. 3. Any woman, hereafter married, may, while married, bargain, sell and convey her real and personal property, and enter into any contract in reference to the same, in the same manner as if she were sole; but no conveyance of any real property, (except a lease for a term not exceeding one year,) and no conveyance of any shares in any corporation, shall be valid, without the assent, in writing, of her husband, except with the consent of one of the judges of the supreme judicial court, or of the court of common pleas, or the judge of probate, to be granted, on her petition, in any county, on account of the sickness, insanity or absence from the Commonwealth, of her husband, or other good cause; and her husband, if within the Commonwealth, shall have such notice of the petition

as the judge or court may order. This petition may be presented to, and granted by, any such judge in vacation, as well as in term time.

- SECT. 4. Any woman, hereafter to be married, may, while married, sue and be sued, in all matters having relation to her property, in the same manner as if she were sole.
- SECT. 5. Any woman, hereafter married, may, while married, make a will; but such will shall not deprive her husband of his rights as tenant by the courtesy, and she shall not bequeath away from him more than one-half of her personal property, without his consent in writing; and any woman, now married, may make a will of her real estate, which, however, shall not deprive her husband of his rights as tenant by the courtesy.
- SECT. 6. The real estate and shares in any corporation, standing in the name of any married woman, which were her property at the time of her marriage, or which have since become, or may hereafter become, her property, by virtue of any devise or bequest, or gift from any person except her husband, shall not be liable to be taken on any execution against, for any debt hereafter to be contracted, or any cause of action hereafter arising.
- SECT. 7. Any married woman may carry on any trade or business, and perform any labor or services, on her own sole and separate account; and the earnings of any married woman, from her trade, business, labor or services, shall be her sole and separate property, and may be used and invested by her in her own name; and she may sue and be sued as if sole in regard to her trade, business, labor, services and earnings; and her property acquired by her trade, business and services, and the proceeds thereof, may be taken on any execution against her.
- SECT. 8. Any woman who shall have been married out of this State, shall, if her husband afterwards become a resident within this Commonwealth, retain all the rights as to property which she may have acquired by the laws of any other State or country, or which she may have acquired by virtue of any marriage contract or settlement made out of this Commonwealth.
- SECT. 9. Nothing in this act contained, shall invalidate any marriage settlement or contract, now made, or to be hereafter made

Approved by the Governor, May 5, 1855

New Hampshire

AN ACT IN RELATION TO MARRIED WOMEN.

- SECTION 1. Every married woman to hold to her own use all property received by her, not paid for by property of husband.
- SEC. 2. Wives to have property of husband set off to them by Supreme Judicial Court in certain cases.
- SEC. 3. Wills of married women to be valid; husbands may be devisees; married women to sue and be sued as if sole.
 - SEC. 4. Repealing clause.
 - SEC. 5. Act to take effect August 1, 1860.

Be it enacted by the Senate and House of Representatives, in General Court convened

- SECTION 1. That every married woman shall hold to her own use, free from the interference or control of her husband, all property inherited by, bequeathed, given or conveyed to her; provided such conveyance, gift or bequest is not occasioned by payment or pledge of the property of the husband.
- SEC. 2. Any married woman whose husband is insane, or has joined any religious society which professes to believe the relation of husband and wife unlawful, may petition the Supreme Judicial Court to have the estate, real, personal or mixed, of the husband set off to her; and the court shall order such notice thereon as they may think reasonable, and upon hearing parties interested therein, may assign to her such part of the real, personal or mixed estate of the husband as may be deemed just and expedient; and the estate so assigned to her shall be held by the wife to her sole and separate use, so long as such husband shall continue insane, or connected with such religious society.
- SEC. 3. The last will and testament of any married woman, of the age of twenty-one years and upward, of sane mind, executed with the formalities and in the manner required for the execution of wills in other cases, shall be proved and allowed in the court of probate in the same manner as the wills of other persons deceased, and shall be valid and effectual as against the heirs at law of such married women to pass any estate therein devised, of which she in her own right, and her husband by virtue of the coverture in her right, may be seized to any devisee therein named, in the same manner as if such woman were sole and unmarried at the time of making such will; and her husband may be a devisee in the same manner as any other person. But no such will shall in any way operate to limit or affect injuriously the life estate of the husband as tenant by the curtesy. Any married woman, holding property to her sole and separate use, free from the interference or control of her husband, may sue and be sued in her

own name, as though sole, in all matters pertaining to said property, and upon all debts contracted by her before her marriage.

- SEC. 4. All acts and parts of acts, inconsistent with the provisions of this act, are hereby repealed.
 - SEC. 5. This act shall take effect on the first day of August, 1860. Approved July 4, 1860.

Rhode Island

AN ACT CONCERNING THE PROPERTY OF MARRIED WOMEN.

State session of January 1844 (According to Warbasse (1987) act was passed on Feb 8, 1844)

- SEC. 1. Certain property possessed by a woman before marriage, &c., secured to her sole use.
- SEC. 2. Furniture, stocks, mortgages, &C., possessed by wife, shall not be sold, &c., unless by joint deed, except, &c.
 - SEC. 3. Married woman may dispose of her personal property by will.
 - SEC. 4. Husband tenant by the curtesy, &c.
 - SEC. 5. Property liable for debts of wife contracted before marriage.
- SEC. 6. Actions to be joint; amount recovered may be invested in name of wife.
 - SEC. 7. Supreme court may appoint trustees of the property, &C.
- SEC. 8. Property owned by married woman before this act takes effect, not affected by it.

It is enacted by the General Assembly, as follows:

SECTION 1. The real estate, chattels real, household furniture, plate, jewels, stock or shares in the capital stock of any incorporated company of this state, or debts secured by mortgage on property within this state, which are the property of any woman before marriage, or which may become the property of any woman after marriage, shall be and are hereby so far secured to her sole and separate use, that the same, and the rents, profits and income thereof, shall not be liable to be attached, or in any way taken for the debts of the husband, either before or after his death; and upon the death of the husband in the life time of the wife shall be and remain her sole and separate property. In case of the sale of any such property the proceeds of such sale, or any part of the same, may be invested in the name of the wife in any of the kinds of the property aforesaid, and to be secured to and holden by the wife in the same manner and with the same

rights and effect as the property sold. The receipt or discharge of the husband for the rents and profits of such property, shall be a sufficient receipt and discharge therefor, unless previous notice in writing shall be given by the wife to the lessee, debtor or incorporated company, from whom such rents or profits are payable; in which case the sole and separate receipt or discharge of the wife shall alone be a sufficient receipt and discharge therefor.

- SEC. 2. The chattels real, household furniture, plate, jewels, stock or shares in the capital stock of any incorporated company in this state, or debts secured by mortgage on property within this state, which are the property of any woman before marriage, or which may become the property of any woman after marriage, shall not be sold, leased or conveyed by the husband, unless by deed, in which the wife shall join as grantor; which deed shall he acknowledged in the manner by law provided in case of the real estate of married women: provided, however, that whenever the household furniture, plate or jewels belonging to any married woman shall be sold by her husband as his own property, to one who shall purchase the same bona fide, and without notice, actual or constructive, of the right of the wife thereto, such sale shall vest in such purchaser a good and valid title thereto.
- SEC. 3. Any married woman, being upwards of eighteen years of age may dispose of her personal estate secured to her by this act, or any portion of the same, by last will and testament, executed in the manner in which other wills are by law required to be executed.
- SEC. 4. Nothing in this act contained shall be construed to impair the rights of the husband upon the death of the wife as tenant by the curtesy; or in case of no last will and testament, as herein before provided, to deprive the husband of his right to administer upon the estate of his wife, with the same effect as by law provided; or to authorize any husband to give unto or settle upon his wife any of his property in any other manner or with any other effect than if this act had not been passed.
- SEC. 5. The property secured to any married woman by this act shall be liable to attachment or levy for her debts, contracted before marriage, under the same circumstances, and with the same effect, as if she had continued sole and unmarried; and nothing in this act contained shall be construed to impair any lien or right of lien thereon, or any remedy by law provided for the enforcement thereof.
 - SEC. 6. In all actions relating to the property of any married woman,

secured to her by this act, the husband and wife shall jointly sue and be sued, except in case a trustee of the same be appointed as herein after provided; and in case of recovery, by any husband and wife in any such action, the amount by them recovered may be invested in the name of the wife, in any of the kinds of property herein before described, with the same rights and effect as if the same had remained in the possession of the wife, whether the right of action accrued before or after marriage; and all such actions and rights of action shall survive the death of either husband or wife.

- SEC. 7. The supreme court may, upon petition in equity to them by any married woman, filed by her through her next friend, appoint a trustee or trustees of her property, secured to her by this act, who shall be empowered, in his or their own name or names, as trustee or trustees, to sue for, recover and hold such property, to the uses by law provided; said trust to continue during the coverture of such married woman, unless by order of said court sooner determined. And said court shall have full power to remove such trustee or trustees, and to appoint others in their stead, as in case of other trusts.
- SEC. 8. Nothing in this act contained shall in any manner affect any property owned by any married woman before this act goes into effect.

Vermont Vermont changed its marriage legislation in a number of steps. We detail each of these steps and explain which law we use in the paper.

In 1847, Vermont protected the revenues from the wife's real estate from claims against the husband. This act was similar to the one passed in Connecticut in 1845.

AN ACT RELATING TO THE RIGHTS OF MARRIED WOMEN.

It is hereby enacted by the General Assembly of the State of Vermont, as follows:

SEC. 1. The rents, issues and profits of the real estate of any married woman, and the interest of her husband in her right in any real estate, which belonged to her before marriage, or which she may have acquired by gift, grant, devise, or inheritance, during coverture, shall, during coverture, be exempt from attachment or levy of execution, for the sole debts of her husband; and no conveyance made during coverture, by such husband, of such rents, issues, and profits, or of any interest in such real estate, shall be valid, unless the same be by deed, executed by the wife jointly with the husband, and acknowledged by her in the manner now provided by law in the case of the conveyance by husband and wife of the real estate of the wife: Provided, that this act shall not affect

any attachment or levy of execution already made upon such rents, issues and profits.

SEC. -2. Married women may devise, by last will and testament, their lands, tenements, and hereditaments, or any interest therein descendable to their heirs.

Approved, November 15, 1847.

This act was further clarified in 1850.

AN ACT IN EXPLANATION OF "AN ACT RELATING TO THE RIGHTS OF MARRIED WOMEN," APPROVED NOVEMBER 15, A. D. 1847.

It is hereby enacted by the General Assembly of the State of Vermont, as follows:

The words "issues and profits," used in the act to which this is an addition, shall be construed to include all moneys and obligations arising from the sale of such real estate.

Approved November 13, 1850.

In 1861, the act was amended so that creditors could seize the revenues of the real estate if their loans had been made to improve or cultivate the underlying real estate.

AN ACT IN AMENDMENT OF SECTION FIFTEEN OF CHAPTER SIXTY-EIGHT OF THE COMPILED STATUTES.

It is hereby enacted by the General Assembly of the State of Vermont:

- SEC. 1. The annual products of the real estate of any married woman shall not be attached or levied upon for any debt or liability of her husband, except debts created for necessaries for the family of such husband and wife, and except debts for labor or materials furnished upon or for the cultivation or improvement of such real estate; provided, that this act shall not affect any attachment or levy already made.
 - SEC. 2. This act shall take effect from its passage.

Approved November 20, 1861.

The General Assembly of 1862 extended the protection of wife's property to stocks and bonds a wife received from her parents. Together with the protection of the revenues of real estate this established a degree of legal protection of the wife's separate estate that, though not complete, was quite extensive. We therefore use the Statute of 1862 as the relevant law change in the paper.

THE GENERAL STATUTES OF THE STATE OF VERMONT PASSED
AT THE GENERAL ASSEMBLY COMMENCING OCTOBER 9. 1862.

SECT. 20. Any property, consisting of stocks or bonds of any kind, given by a parent to a daughter, shall, with the proceeds and dividends thereof, belong to such daughter, if married, in her own right, and shall not be subject to the debts of the husband, and may be disposed of by such married daughter the same as if unmarried. Such bonds or stocks, however, shall be subject to the proviso in section eighteen of this chapter [Section 18 reproduces the Act of November 20, 1861].

Finally, in 1867, the Vermont legislature passed a MWPA protecting the wife's entire separate estate.

AN ACT IN RELATION TO THE RIGHTS OF MARRIED WOMEN.

It is hereby enacted by the General Assembly of the State of Vermont:

SEC. 1. All personal property and rights of personal action acquired by any married woman during coverture, by inheritance or distribution, shall be held by her to her sole and separate use.

SEC. 2. This act shall take effect from its passage.

Approved, November 21, 1867

D.5 Additional references

Chused, Richard H. "Married women's property law: 1800-1850." Georgetown Law Journal 71 (1982): 1359-1425.

Dobkin Hall, Peter, Family Structure and Class Consolidation among the Boston Brahmins. PhD Thesis, University of New York and Stony Brook (1973)

Farnham, Henry W. Chapters in the History of Social Legislation in the United States to 1860. Washington D.C.: Carnegie Institution of Washington (1938)

Jenson, Carol E. "The Equity Jurisdiction and Married Women's Property in Ante-Bellum America: A Revisionist View." *International Journal of Women's Studies* 2, no. 2 (1979): 144-154.

Warren, Charles. Bankruptcy in United States History. Beard Books (1935).