

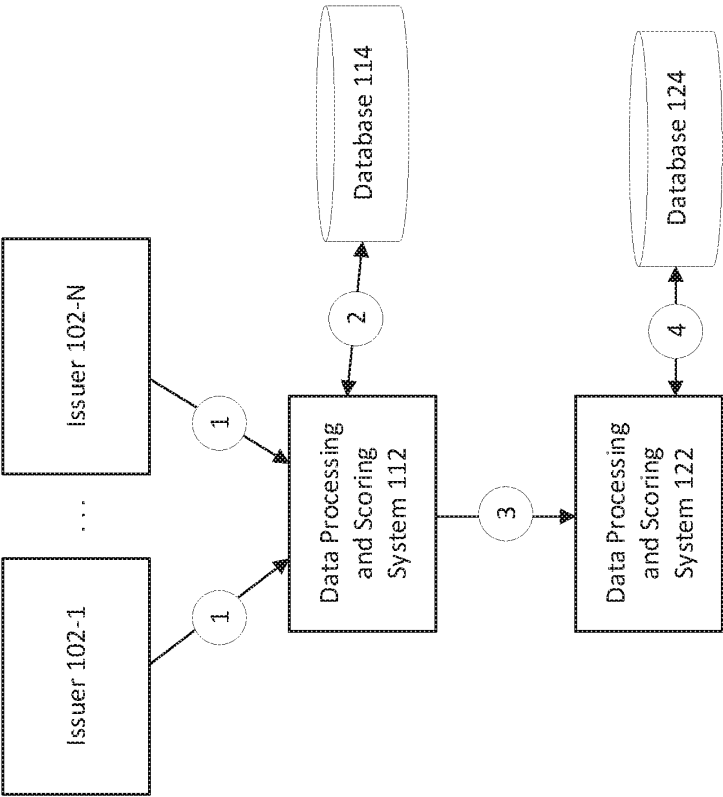


FIG. 1

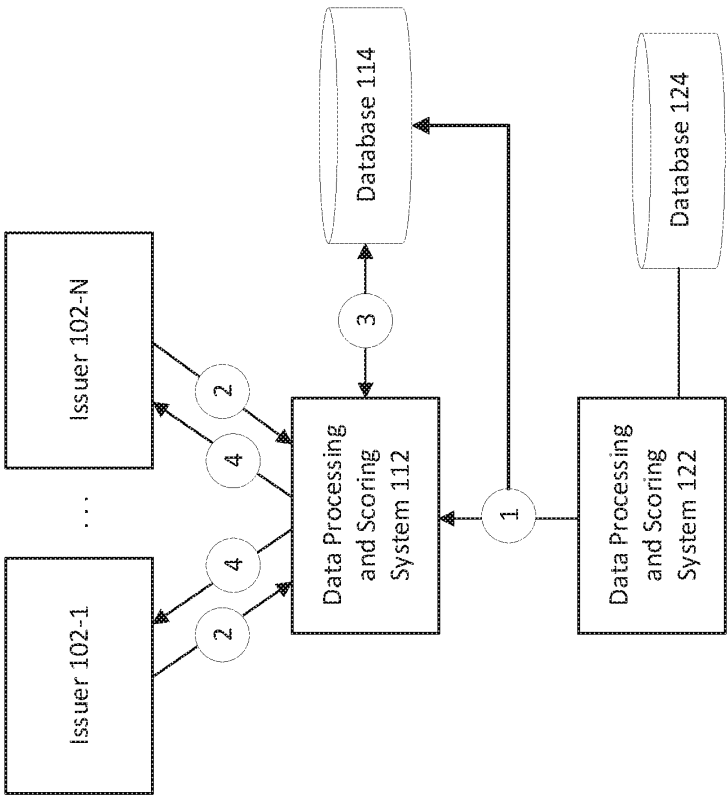


FIG. 2

<u>Feature Type</u>	<u>Feature</u>	<u>Variable Type</u>
Card	302 Number of months since first transaction; if >12 then '12'	Single Variable
	304 Bank Relations; if appl. Issuer is main in terms of tx count over last 12 months then '1', else '0'	Single Variable
Transactions	306 Activation in top risk MCCs; at least 1 tx at pawn shops, betting, security brokers over last 12 months then '1', else '0'	Cross Variable
	308 Average ticket size in POS tx for last 12 months	
	310 Share of medical (specific MCCs) volume out of all POS tx during last 12 months	Cross Variable
	312 Share of construction (specific MCCs) volume out of all POS tx during last 12 months	
Authorizations	314 Upscale consistency; number of months with at least one tx in upscale (specific MCCs)	Cross Variable
	316 Insufficient funds decline rate; average number of insufficient funds declines per active month	

FIG. 3

400

$$\begin{aligned} & \text{SIGMA (} \\ & \text{Intercept +} \\ & \text{(ATS>0) \times beta_1 +} \\ & \text{(ATS>300) \times beta_2 +} \\ & \text{(ATS>400) \times beta_3 +} \\ & \text{(ATS>600) \times beta_4 +} \\ & \text{(months_with_Visa>0) \times gamma_1 +} \\ & \text{(months_with_Visa>6) \times gamma_2 +} \\ & \text{(upscale>0) \times delta_1 +} \\ & \text{(upscale>1) \times delta_2 +} \\ & \text{(upscale>2) \times delta_3 +} \\ & \text{(upscale>3) \times delta_4 +} \\ & \text{(upscale>4) \times delta_5 +} \\ & \text{(upscale>5) \times delta_6 +} \\ & \text{relationship \times epsilon +} \\ & \text{(share>0) \times zeta_1 + (share>1) \times zeta_2)} \\ & \text{= PROBABILITY_OF_DEFAULT} \end{aligned}$$

FIG. 4

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Feature Type	Feature	Ex. #1	Ex. #2
Card	302/ Number of months since first transaction; if >12 then '12'	13 months	3 months
	304/ Bank Relations; if appl. Issuer is main in terms of tx count over last 12 months then '1', else '0'	Main	Not Main
Transactions	306/ Activation in top risk MCCs; at least 1 tx at pawn shops, betting, security brokers over last 12 months then '1', else '0'	Not Active	Active
	308/ Average ticket size in POS tx for last 12 months	700P	332P
	310/ Share of medical (specific MCCs) volume out of all POS tx during last 12 months	0.1	0.18
	312/ Share of construction (specific MCCs) volume out of all POS tx during last 12 months	0.02	0.01
Authorizations	314/ Upscale consistency; number of months with at least one tx in upscale (specific MCCs)	9	1
	316/ Insufficient funds decline rate; average number of insufficient funds declines per active month	0	1.5

FIG. 5

<u>Feature Type</u>	<u>Feature</u>	<u>Ex. #1</u>	<u>Ex. #2</u>
Card	302 Number of months since first transaction; if >12 then '12'	>6	>0
	304 Bank Relations; if appl. Issuer is main in terms of tx count over last 12 months then '1', else '0'	1	0
Transactions	306 Activation in top risk MCCs; at least 1 tx at pawn shops, betting, security brokers over last 12 months then '1', else '0'	GR = 600	GR = 300
	308 Average ticket size in POS tx for last 12 months		
	310 Share of medical (specific MCCs) volume out of all POS tx during last 12 months		
	312 Share of construction (specific MCCs) volume out of all POS tx during last 12 months		
Authorizations	314 Upscale consistency; number of months with at least one tx in upscale (specific MCCs)	GR = 6	GR = 1
	316 Insufficient funds decline rate; average number of insufficient funds declines per active month		

FIG. 6

Parameter	Value	Coefficient	E.g. #1	E.g. #2
Intercept		-5.00	1	1
ATS	0	0.91		
	300	0.66		1
	400	0.54		
	600	0.23	1	
month_with_Visa	0	0.48		1
	6	0.18	1	
upscale	0	1.23		
	1	0.98		1
	2	0.87		
	3	0.76		
	4	0.65		
	5	0.43	1	
relationship	0	0.21		1
share	0	0.55		
	1	0.33	1	1
		Linear Score	-3.83	-2.34
		Probability	0.02	0.09
		Default Score	776	668

FIG. 7

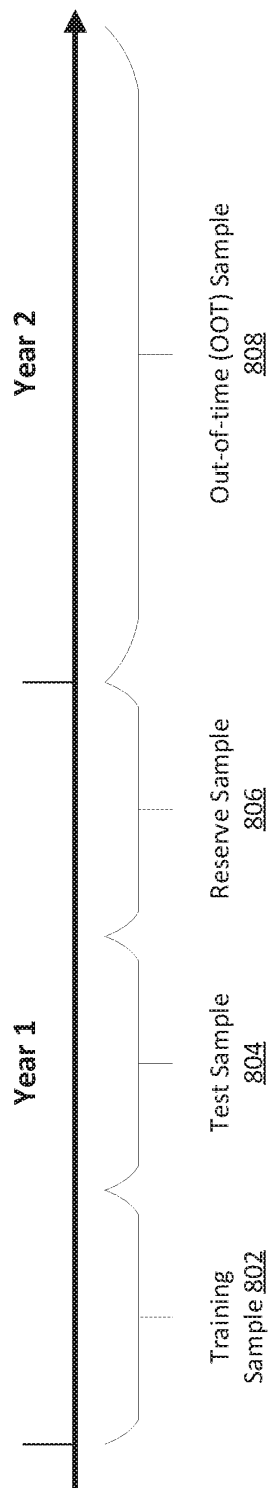


FIG. 8

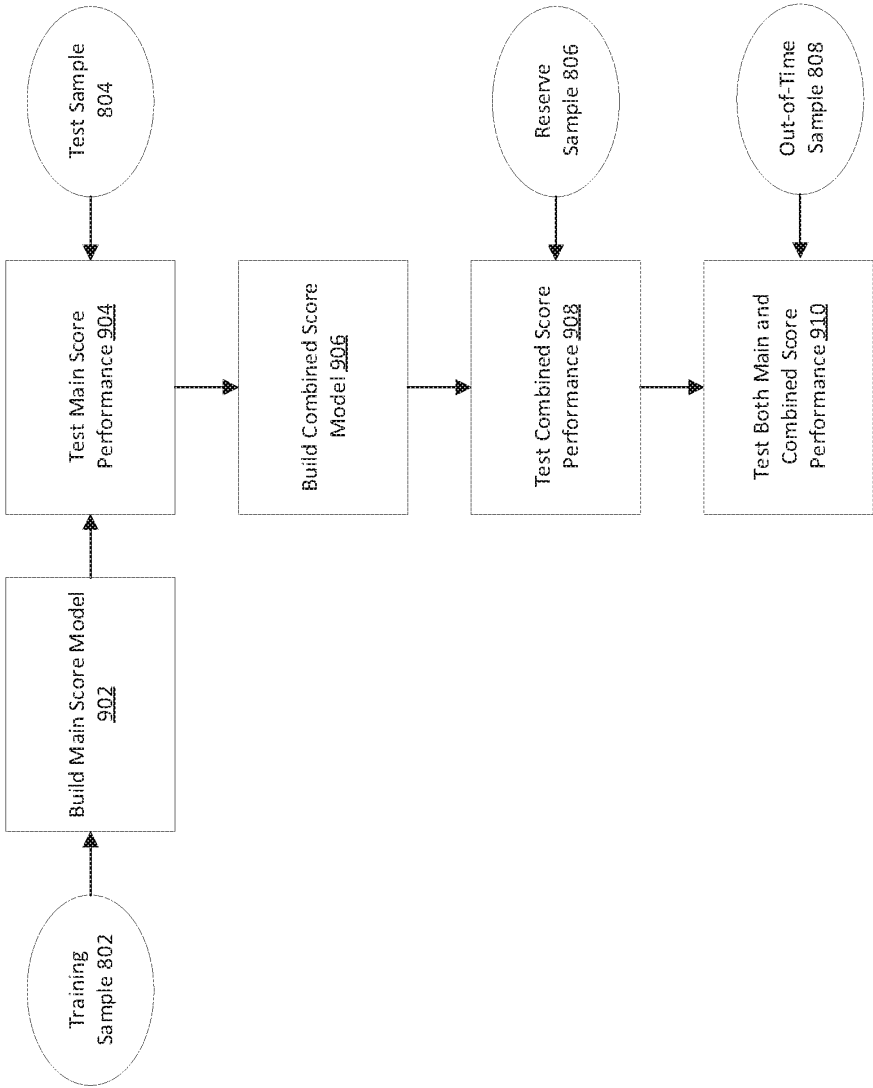


FIG. 9

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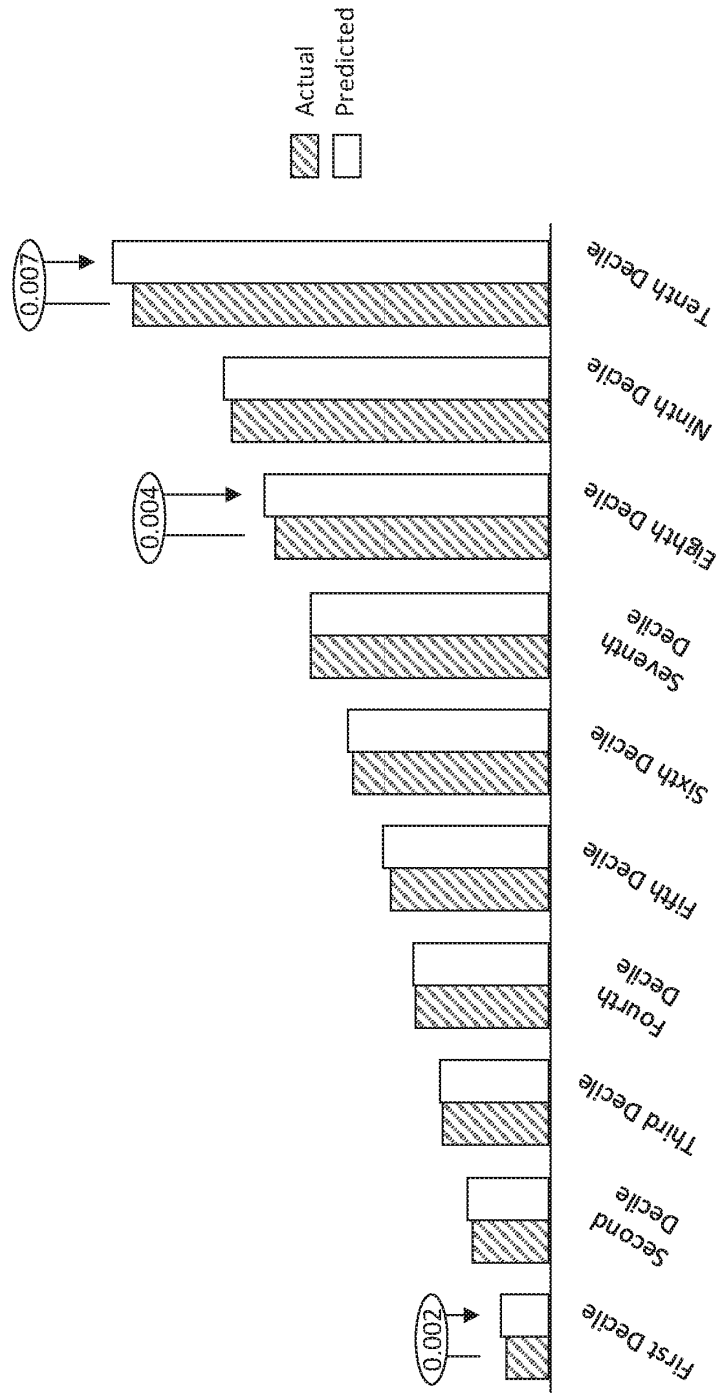


FIG. 10