OF COINS AND COMMERCE

Comments and Context on the Economy of the Adventurer Conqueror King System

The economy of ACKS is built from a small number of assumptions, the most crucial of which are (1) that an unskilled laborer earns around 1sp per day of work; (2) that a typical farm yields one quarter of grain per acre; (3) that one quarter of grain sells for 4gp; and (4) that risky investments will yield a rate of return of 3% per month.

The first three assumptions are grounded in history, and a more elaborate explanation of them can be found elsewhere in *Axioms Issue III*. They set the foundation for the wages and costs of everything else in the setting. Mankind's caloric needs and unskilled labor productivity did not vary much within the timeframe *ACKS* concerns itself, and so by adjusting for land productivity we could normalize a variety of historical prices for the game.

The fourth assumption actually *emerged* from the other three assumptions of the system; it wasn't initially designed in. We have previously referred to it as "the secret ratio" of 1:33 (as 1 divided by 33 yields .03 or 3%). The first place the secret ratio appeared was in the average rate of return on gold invested per month in support of mercantile activities, which is 3%. But then it started appearing everywhere.

This ratio became very useful as it allowed us to work out the approximate "capital" of individuals with known income, or conversely, the approximate income of individuals with a known amount of capital. (Note that capital is loosely defined here -- a fighter who has spent thousands of gold carousing while bragging of his exploits has essentially "invested" in his reputation. We assumed for the sake of simplicity that coin, equipment, training, carousing, etc. all have an equal rate of return). Using the secret ratio, we can conclude that:

- A peasant, earning 3gp per month, probably has (3x33) 99gp in capital. This is probably seed, farming implements, and perhaps some domestic animals.
- An alchemist, earning 75gp per month, probably has (75x33) 2,475gp in capital - lab equipment, books, chemical mixtures, potions, and coin.
- The emperor of a massive domain, with an income of 360,000gp per month, has capital of around 11,880,000gp.
- A warrior (2nd level fighter) with 1,500gp invested in equipment, training, and so on, would expect to earn 45gp per month (1500/33).

About 80% of experience points in ACKS are derived from gold, so it was easy to determine the capital of an NPC by multiplying his XP by 80%. That in turn enabled us to calculate the amount of money the character would expect to earn per month. This solved the age-old problem of "how much does it cost to hire an NPC of such-and-such level". Even better, since we knew the average income of various ranks of nobility, it also showed how the wages of characters of various levels compared against that of nobility. At 9th level a character's income from his skills suggested he should be earning as much as an earl or count - which, in turn, suggests that a 9th level warlord who has built a stronghold and carved out a domain can safely style himself as an earl or count.

Some reviewers who have encountered the secret ratio find the notion of a 3% per month interest rate absurd. But it wasn't absurd historically – in fact, it wasn't even uncommon. In some times and places, it was the default. For example:

- The average 1-year rate of profit on agricultural product during the 13th-14th centuries in England was 22.3% for wheat, 29.3% for barley, and 22.4% for oats ("Markets and Economic Growth: The Grain Market of Medieval England", Greg Clark, Department of Economics - UC Davis).
- In Old Babylonia, the interest rate on agricultural loans was 33 1/3%. ("How Interest Rates Were Set, 2500 BC - 1000 AD," Michael Hudson, Journal of the Economic and Social History of the Orient 43, Spring 2000).
- Mortgage lenders in pre-modern France typically required interest of 20-30% of the value of their loan and merchants paid as much as 5-8 % interest per *week* for working capital (An Essay on Economic Theory, Richard Cantillon).
- The rate of return on the silver trade between Rome and India during the Hellenistic era was 100%! (The Middle Ages Revisited, Alexander Del Mar).

Such exorbitant rates of profit and interest seem unbelievable to students of modern economics. How could such rates of profit and interest be sustained? Because of all these factors:

- Economic rents on land. Landlords had a monopoly on land and legal rights to force the workers to work the land. Labor was not a free market.
- Economic rents on commerce. Guild monopolies were common, as were royal charters.
- Grossly inefficient markets. Inefficient markets allow for higher rates of return than efficient markets, which arbitrage away high profits.
- Very short time preferences. When life is nasty, brutish, and short, there's little incentive to save. That means that interest rates must be very high or actors will simply consume.
- Low capital accumulation. Revenues were consumed rather than capitalized, leading to high rates of profit but low rates of long-term growth.

From these four assumptions we erected the edifice of *ACKS*'s economic system. The rest of this article fills in various gaps in the system that might arise in play.

COINAGE

How much coin is there in a domain, realm, or world? In *ACKS,* the amount of coinage in circulation in a realm will equal 24gp per peasant family, consisting of the commonly-used coins reflecting their typical exchange rate. E.g. the 24gp of value will actually consist of 8gp, 80sp, and 800cp.

EXAMPLE: A realm of 5,000,000 peasant families has (5,000,000 x 24) 120,000,000gp worth of coins circulating. These consist of 40,000,000gp; 400,000,000sp; and 4,000,000,000cp. At 100 coins per pound, the tonnage in circulation is 200 tons of gold, 2000 tons of silver, and 12,500 tons of copper.

A character's capital or net worth in ACKS is typically equal to 33 times monthly earnings. A typical peasant farm produces 16.25gp per month (shared between ruler and peasants), suggesting net worth of about 536gp is associated with the farm. The 24gp in circulation associated with that farm therefore reflects only about 5% of the farm's net worth. Put another way, the vast majority of wealth in *ACKS* is in land, livestock, tools, etc.

NOTE: How do these rules stack up to history? The Persian Empire had a population of 7 million families, so our rules would predict 168,000,000gp worth of coins – about 56 million gold, 560 million silver, and 5.6 billion copper. We know the Persian Empire conquered by Alexander the Great had a store of precious metals worth 200,000 silver talents, divided between 10,000 gold talents and 100,000 silver talents. That works out to (60lbs/talent x 100 coins/lbs. x 10,000) 60,000,000gp and 600,000,000sp. Spot on!

Meanwhile the 2nd Century AD Roman Empire had a population of about 8 million families, so our rules would predict 192,000,000gp worth of coins – about 64 million gold, 640 million silver, and 6.4 billion copper. We know that the Roman Empire had an annual product of about 10 tons of gold, 200 tons of silver, and 15,000 tons of copper, that allowed it to accumulate vast stores of metal – as much as 500 tons of gold, 10,000 tons of silver, and 750,000 tons of copper. That is enough for 100 million gold, 2 billion silver, and 150 billion copper coins. Of course, some of the silver and most of the copper was used for ornaments or tools, but the Romans certainly had ample metal for the coinage we predict.

Finally, the economist Richard Cantillon assessed the typical coinage in circulation of a pre-industrial economy as equal to around one-ninth the product of the land. In *ACKS* a peasant family produces 16.25gp per month or 195gp per year, suggesting 21.6gp of coinage in circulation. We selected 24gp per family so that each family would have sufficient coinage to pay their taxes (2gp per month) annually in coin.

Should the Judge wish to create a venerable dragon that has accumulated all of the coin of an entire kingdom, he now can do so! Such a treasure will be greatly in excess of the paltry hoards presented in the Treasure Types.

COMMISSIONS

These rules replace those found in ACKS. A character in an urban settlement can commission equipment. If the volume of equipment normally available in the market is one or more, then *10 times* the normal amount available by market class can be commissioned. If the volume of equipment normally available is less than one (e.g., there is just a percentage chance of one item being present), then multiply the percentage chance by 10 to get the percentage chance that one item can be commissioned. (If the result is greater than 100%, then one item can be commissioned per 100%.)

The commissioned equipment is not available until the commission is complete. Building and vehicle commissions are completed at a rate of 1 day per 500gp value. Animal commissions are completed at a rate of 1 day per 1gp value (or the rules in *Lairs & Encounters* may be used to assess training time required). Other equipment commissions are completed at a rate of 1 day per 5gp value. If more than one item is commissioned, the work is performed simultaneously.

EXAMPLE: Marcus is in Arganos, a city of 4,000 families (Class III market). He wants to buy a war galley (60,000gp), 75 swords (10gp each), and 200 flasks of oil (3sp each). A Class III market has 260 units of any equipment priced 1gp or less, so he finds the 200 flasks of oil without problem. A Class III market has only 15 units of any equipment priced 10gp or less, so only 15 swords are available. There is only a 2% chance of a 60,000gp war galley being available, and the Judge rolls a 42; Marcus cannot find that type of ship in Arganos this month. Marcus decides he'd like to commission the town's armorers to forge more swords, and commission a shipwright to build a war galley. The Judge determines that Marcus can commission up to (15 x 5) 75 swords, which will be ready in (10gp/5gp) 2 days. For the war galley, the Judge multiplies the chance of availability by 10, so there is a 20% chance that a war galley can be commissioned in Arganos this month. The Judge rolls a 17 on 1d100, so a shipwright is available. It will take 120 days for the war galley to be finished (60,000gp / 500gp per day).

Class I markets: In large Class I markets, a character can commission more than ten times the normal amount available, up to (urban families /2,000).

EXAMPLE: If Marcus were in Aura, a city of 100,000 families, he could commission up to (100,000 / 2,000) 50 times the normal amount available.

CONSUMPTION OF URBAN FAMILIES

The average income of a peasant family is between 4 and 6gp per month (see *The Economics of Peasant Families* in Axioms III). In comparison, the average income of an urban family is between 25 and 75gp per month, or about five to ten times higher. However, this does not mean that most urban families are wealthy. The average is skewed by wealthy urban elites, such as bankers, lawyers, magistrates, master craftsmen, and merchants. The median income of an urban family is only 6 to 12gp per month. The median urban income is greater than that of the peasantry, but of course offset by higher costs.

NOTE: To understand how these values were derived requires a slight diversion into the circular flow of an agricultural economy. Assume a simple domain with 80 peasant families, 20 urban families, and 1 ruler. If each peasant family produces 16.25gp of farm goods and consumes 4.25gp of farm goods, that leaves 12gp of farm goods unconsumed, which pass to the local ruler (960gp total). The ruler could reasonably spend 50% of his income on farm goods (including grain, meat, cheese, beer, wine, oil, honey, firewood, horse fodder, etc.) but the remaining 50% (480gp) will be spent on finer goods only available from the artisans and craftsmen of urban settlements. To get money for this, he sells the farm goods to the urban settlers for 480gp, then buys 480gp of urban goods from them. The urban families, in turn, are only spending 50% of their income on farm goods, so they must have a collective income of 960gp (2 x 480gp), with the other 480gp of income coming from the sale of their own urban goods to each other. (E.g., the candlemaker buys cloth from the clothier, who buys candles from the candlemaker.) The urban families therefore produce on average (960gp/20) 48gp each.

But these variables can easily change depending on agricultural productivity, consumption pattern, and population distribution. Given the same agricultural productivity and consumption pattern, an increase in urban population means a decrease in per-capita urban income, and vice versa. In a realm where 30% of the population is urban, urban income would drop to 28gp per month, with large numbers of "urban plebs" living in the cities. If only 10% of the population is urban, but half of consumption is urban, urban income would increase to 96gp per month.

Given the same agricultural productivity and population distribution, an increase in consumption of urban goods means an increase in per-capita urban income, and vice versa. For instance, if the nobility spends 55% of its income on urban goods, and the peasants spend 35% of its income on urban goods, then the urban families will have 2 x [(960 x .55) + (80 x 4.25 x .35)] 1,296gp in income, or around 65gp each. But if a manorial system develops in which the countryside is largely self-sufficient, then the nobility might spend as little as 35% of its income on farm goods and the peasantry spend nothing at all; in this case the urban families will have 2 x (960 x .35) 672gp in income, or around 33gp each.

Likewise, given the same population distribution and consumption pattern, an increase in agricultural productivity means an increase in urban income, and vice versa. For instance, if the peasant families produce 20gp of farm goods each, and consume 4.25gp of farm goods and 4gp of urban goods, then the urban families will have 2 x [(960 x .5) + (80 x 4)] 1,600gp in come, or 80gp each.

All of these trends would interact with each other. If a realm's central government becomes weak and power decentralizes into landed nobility, this will tend to lead towards more self-sufficient manors that purchase fewer urban goods. That will decrease the income of the urban families, which will lead to some families fleeing the cities for the countryside, until a new equilibrium arises. Or, if a realm's agricultural productivity becomes so high that all of its agricultural needs are satiated, then the peasantry will abandon the country and move to the city, which in turn will drive down urban income. We will leave such calculations to future developers of our industrial-age *Proletariat, Revolutionary, Dictator* expansion….

In *ACKS,* we note that "if the character simply wishes to buy civilized land, he will find it very expensive; an acre of good land costs about 50gp." This leaves several questions unanswered: (1) what is "good" land? (2) how much does "bad" land cost per acre? (3) does the price vary for borderlands and wilderness domains?

For game purposes, the two determinants of cost per acre are the land value (gp/month per peasant family) and the classification (civilized, borderlands, or wilderness). The former determines the land's productivity and the latter determines how much it costs to protect it, and what risk it faces of domain encounters. The table below provides a cost per acre for land of various classifications and land values.

Classification and Land Value	Cost per Acre	Monthly Return
Civilized, land value 9	71gp	0.5%
Civilized, land value 8	64gp	0.5%
Civilized, land value 7	57gp	0.5%
Civilized, land value 6	50gp	0.5%
Civilized, land value 5	43gp	0.5%
Civilized, land value 4	36gp	0.5%
Civilized, land value 3	29gp	0.5%
Borderlands, land value 9	24gp	1%
Borderlands, land value 8	21gp	1%
Borderlands, land value 7	18gp	1%
Borderlands, land value 6	15gp	1%
Borderlands, land value 5	12gp	1%
Borderlands, land value 4	9gp	1%
Borderlands, land value 3	6gp	1%
Wilderness, land value 9	3gp*	3%
Wilderness, land value 8	2gp*	3%
Wilderness, land value 7	1gp*	3%
Wilderness, land value 6 or less	0gp**	3%

*If owned. Unclaimed wilderness has no cost.
**If owned, low-value Wilderness Land purchase might cost a few silvers or coppers per acre (Judge's discretion).

MERCANTILE VENTURES

In *ACKS,* the market class of an urban settlement exclusively determines the toll charged to enter the market, the number of merchants and shippers interested in transactions, and the number of passengers interested in booking passage. However, the city magistrates ought to charge a higher toll to the commander of a six-ship fleet than to an itinerant peddler with a single wagon. Conversely, more of the city's traders ought to be interested in doing business with a mighty merchant-captain than a lowly peddler. To reflect these various circumstances, each market class is assigned a **baseline merchant cargo**, ranging from 640 stones to 60,000 stones.

Market Class	Baseline Cargo	Standard Fleet*	Standard Caravan**	Standard Toll	Standard Passengers	Standard Merch. / Shippers	Loads Each
I	60,000 st	6 small ships	80 large wagons	4d8x10gp	2d4+1	2d6+2	6d8
II	10,000 st	1 small ship	20 large wagons	4d10+10gp	2d4	2d4+1	4d6
III	5,000 st	8 sailing boats	10 large wagons	4d6+2gp	1d4	2d4	3d4
IV	2,500 st	4 sailing boats	5 large wagons	2d6+1gp	1d4-1	1d4	2d4
V	960 st	2 sailing boats	3 small wagons	2d3gp	1d3-1	1d4-1	1d4
VI	320 st	1 river boat	1 small wagon	4d4sp	1d2-1	1d3-1	1d2

* 1 large ship = 3 small ships = 50 sailing boats = 100 river boats. 1 small ship = 16 sailing boats = 25 river boats.
**1 large wagon = 2 small wagons = 3 large carts = 4 small carts. 1 small cart = 2 heavy horses = 3 camels = 4 mules = 10 donkeys.

When a character (or party of characters) enters a market, the Judge should determine the party's **market impact** based on the number of boats, ships, wagons, carts, and pack animals they have entered the market with. The character or party's market impact is equal to the total capacity of its ships and wagons divided by the market's baseline merchant cargo, rounded down.

The toll charged, number of passengers, number of merchants, and number of shipping contracts for the market are **multiplied** by the character or party's market impact. The Market Impact table shows the baseline merchant cargo for each market class, along with the toll charged, number of passengers interested in transit, number of merchants interested in transactions, and number of shippers interested in contracts when the market impact is 1. (For convenience, the table also shows the number of loads each merchant or shipper will transact in, but these values are *not* increased by market impact.)

EXAMPLE: Zenobia arrives at Alakyrum at the head of a caravan of 2,000 camels. Camels have a maximum load of 60 st, so her cargo capacity is 120,000 st. Alakyrum is a Class I market, so its baseline merchant cargo is 60,000 st. Zenobia has a market impact of (120,000 / 60,000) 2. She will pay a toll of 4d8x20gp, and be able to transact with 4d4+2 passengers, 4d6+4 merchants, and 4d6+4 shippers. Each merchant or shipper will have 6d8 loads.

Maximum Impact: If the characters are entering a Class II market or smaller, their maximum market impact is 10 – the market simply cannot service a fleet or caravan any bigger. The maximum market impact permitted in a Class I market, however, is equal to its urban families / 2,000.

EXAMPLE: En route from Alakyrum, Zenobia arrives at a small village at a nameless oasis. The village is a Class VI market with a baseline merchant cargo of 640 st. With a cargo capacity of 120,000 st, Zenobia's market impact would be (120,000 / 640) 188. She's in a Class VI market, so she treats her market impact as 10.

Standard Fleets and Caravans: Judges can quickly approximate the party's market impact by comparing their fleet or caravan to the vessels and vehicles listed in the Standard Fleet and Standard Caravan columns of the table. This avoids having to calculate the cargo capacity manually, though it's less precise.

EXAMPLE: Marcus, Quintus, and Viktir arrive at Arganos with a fleet of 3 small ships. Arganos is a Class III market, so it has a standard fleet of 8 sailing boats. 1 small ship counts as 16 sailing boats, so the party's market impact is (3 x 16 / 8) 6. The party will pay a toll of (4d6+2)x6 gp, and be able to transact with 12d4 passengers, 12d4+6 merchants, and 12d4 shippers. Each merchant or shipper will have 4d6 loads.

Parties: A group of characters arriving together can decide when entering the market whether to do so as a party or to enter separately. Their market impact is determined accordingly. However, when a party of characters enter the market separately, the maximum market impact is equal to 10 divided by the number of characters.

EXAMPLE: Marcus, Quintus, and Viktir could have chosen to enter Arganos separately, with 1 small ship each. Each of them would then have had a market impact of (1 x 16 / 8) 2.

No Market Impact: If a character's market impact is 0, he can still transact in the market. However, he treats the market as being of the next lower market class. If his market impact is still 0, reduce the market class again, repeating this procedure until the character's market impact is at least 1. A character can always trade in a Class VI market as if he had market impact 1.

EXAMPLE: In a tragically bad game of dice, Viktir loses a lot of his wealth. He is forced to reduce his fleet to 2 sailing boats. When he next enters Arganos, he treats it as if it were a Class V market.

Mercantile Networks: Whenever venturers engage in mercantile ventures in a market they have previously visited, they may either treat the market as if it were one market class larger than its actual size or they may take a +1 bonus to market impact, whichever is more useful.

MERCANTILE INVESTMENTS

Rather than consume or hoard their wealth, characters can invest some or all of it in the hopes of earning returns on the investment. For simplicity, mercantile investments are categorized into three types – establishing businesses, funding mercantile expeditions, and lending money – as well as six levels of risk – safe, cautious, balanced, risky, and perilous. The type of investment determines what sort of vagaries may occur, while the level of risk determines the **base rate of return** per month and influences the vagaries.

Safe investments prioritize the protection of capital above all else. Safe investments include loaning money to chartered banks and investing in licensed guilds with local monopolies. They have a base rate of return of 0.25% per month.

Cautious investments seek a steady return with limited risk to capital, such as investing in civilized farms, investing in large, established businesses, and loaning money to large private landowners. They have a base rate of return of 0.5% per month.

Balanced investments seek a balance between return and risk, such as investing in border farms, funding short-distance mercantile ventures, and loaning money to stable realms. They have a base rate of return of 1% per month.

Risky investments aim for high returns, but may incur substantial losses in some years. Risky investments include investing in wilderness farms, funding long-distance mercantile ventures, loaning money to unstable or warring realms, and investing money in small businesses. They have a base rate of return of 3% per month on average.

Perilous investments offer very high returns at exceptional risk, such as funding adventuring expeditions, funding private military campaigns, and investing in criminal syndicates. Perilous investments have a base rate of return of 9% per month or more – but most perilous ventures will be bankrupt within a year.

Making an Investment: To make an investment, a character allocates 1gp or more, and chooses the investment's type (business establishment, mercantile expedition, or money lending) and level of risk (safe, cautious, balanced, risky, or perilous). The character must be in a market in order to make an investment. There is no minimum investment, but there is a maximum investment per month determined by the market class. The adjoining table below the maximum mercantile investment permitted each month in a market. If multiple characters. (If desired, the Judge can limit agricultural and urban investments to these values as well.)

Market Class	Max Investment / Month
I	100,000gp*
II	25,000gp
III	10,000gp
IV	5,000gp
V	2,000gp
VI	1,000gp
*Per 20,000 families	

Once an Investment is made, the Judge will roll 1d100 on the Vagaries of Investment table each month and apply its results. Unless noted otherwise by the vagary, the character will then receive a return on his investment, equal to the current value of his investment multiplied by its current rate of return. (Both the value of the investment and the rate of return may vary over time.) Returns are *not* automatically compounded, although characters may choose to re-invest profits into the same or a new investment when they re-enter a market. Characters do *not* earn XP from mercantile investments.

Liquidating an Investment: Characters can liquidate an investment to recover their capital. A safe investment can be liquidated immediately. It takes one month to liquidate a cautious investment, two months to liquidate a balanced investment, three months to liquidate a risky investment, and 1d6+3 months to liquidate a dangerous investment. During that time, the character continues to earn a return and risk vagaries. It is possible to be wiped out by a bad vagary while trying to liquidate!

Vagaries of Investment: For each investment each month the Judge will roll 1d100 on the Vagaries of Investment table, cross-referencing the die roll, the level of risk, and the type of investment to determine the result affecting the character's investment.

1d100 Roll by Risk					Business Establishment	Mercantile Expedition	Money Lending
S	C	B	R	D			
-	-	01 -	02 -	O5 -	Bankruptcy	Annihilation	Default
-	01 -	02-03	03-07	06-10	Calamity	Delay	Deferment
01 -	02-03	04-06	08-12	11-15	Fee	Decimation	Writedown
02-03	04-06	07-10	13-17	16-20	Disrepute	Rival	Bailout 50%
04-05	07-10	11-15	18-22	21-25	Racket	Brigandage/Piracy	Bailout 25%
07-10	11-15	16-20	23-27	26-30	Return -200%	Return -200%	Bailout 5%
11-15	16-20	21-25	28-32	31-35	Return -150%	Return -150%	3 Month Extension
16-25	21-28	26-32	33-37	36-40	Return -100%	Return -100%	2 Month Extension
26-40	29-40	33-42	38-42	41-45	Return -50%	Return -50%	1 Month Extension
41-60	41-60	43-58	43-58	46-55	Return	Return	Return
61-75	61-72	59-68	59-63	56-50	Return +50%	Return +50%	Return
76-85	73-80	69-75	64-68	61-65	Return +100%	Return +100%	Return
86-90	81-85	76-80	69-73	66-70	Return +150%	Return +150%	Banking Fee +50%
91-94	86-90	81-85	74-78	71-75	Return +200%	Return +200%	Collateral 5%
95-97	91-94	86-90	79-83	76-80	Patron	Protector	Collateral 10%
98-99	95-97	91-94	84-88	81-85	Acclamation	Monopoly	Collateral 20%
100 +	98-99	95-97	89-93	86-90	Windfall +2d10%	Discovery +2d10%	Principal
-	100 +	98-99	94-98	91-95	Windfall +2d6x5%	Discovery +2d6x5%	Repayment
-	-	100 +	99 +	96 +	Windfall +100%	Discovery +100%	Maturation

Acclamation: The business has gained a reputation for excellence. The business's current rate of return is doubled this month and for the next 1d6 months. A "Disrepute" vagary cancels this vagary as soon as it occurs.

Annihilation: The expedition has been utterly destroyed. The character earns no return this month, and his investment is completely lost. 1d4 survivors report that the cause of the annihilation is (roll 1d8): 1 – mysterious, 2 – a rival expedition, 3 – a natural disaster, 4 – a group of monsters, 5 – an enemy army, 6 – brigands or pirates, 7 – betrayal from within, 8 – betrayal from trading partners.

Bailout: The debtor needs more funds. The character is asked to invest additional sums equal to the value of his investment multiplied by the percentage shown. If the character provides the bailout, he collects his return based on the new value. If he does not, he can take a "Writedown" vagary or seize the debtor's assets in repayment. Seizing the debtor's assets reduces the current value of the character's investment by 2d6x5% and liquidates the investment.

EXAMPLE: The Zaharan ruinguard Moruvai has taken up predatory lending. He has made a dangerous money-lending investment valued at 20,000gp with a base rate of return of 9% per month. The Judge rolls a "Bailout 25%" vagary. Moruvai may either lend another 4,000gp, accept a Writedown of 2d10% of his investment, or seize the debtor's assets, losing 2d6x5% of his investment and liquidating it.

Banking Fee: The character is able to secure an additional fee from the debtor. The return on the character's investment is increased this month by 50% . The fee is (roll 1d6) 1 – origination fee, 2 – late payment fee, 3 – legal expense, 4 – certification, 5 – appraisal, 6 – prepayment penalty.

Bankruptcy: The business goes bust. The character earns no return this month, and his investment is completely lost. The reason for the bankruptcy is (roll 1d10): 1 – mysterious, 2 – casualty, 3 – theft, 4 – loss of key personnel, 5 - corruption, 6 – competition, 7 – government interference, 8-10 bad judgment.

Brigandage/Piracy: The expedition has become the target of an organized company of brigands or fleet of pirates. The expedition's current rate of return is reduced by 33% for the next 1d6 months. The enemy will consist of NPC brigands or pirates with wages equal to ½ the losses they are causing. Despite their predatory nature, the brigands keep worse things at bay, so slaying them increases risk by one level (e.g. from Cautious to Balanced) for 1d6 months unless the PC takes steps to address it (Judge's discretion). A "Protector" vagary cancels this vagary as soon as it occurs.

Calamity: A calamity has wrecked the business's storefront and/or inventory. The character earns no return this month, and the value of his investment is reduced by 2d6x5%. The calamity is (roll 1d6) 1 – arson, 2 – vandalism, 3 – burglary, 4 – riot, 5 - accidental fire, 6 – flood.

Collateral: The debtor deposits collateral worth 5% - 20% of the investment value with the character. In the event that the character loses any investment value in the future due to a "Default," "Deferment," "Bailout," or "Writedown" vagary, the character may seize the collateral to make up for the loss. The character may also apply the value of collateral towards a bailout. The collateral is (roll 1d6) 1 – common merchandise, 2 – precious merchandise, 3 – gems, 4 – jewelry, 5 – silver, 6 – gold.

Decimation: The expedition has been decimated. The character earns no return this month, and the value of his investment is reduced by 2d10%. The cause of the casualties is (roll 1d8): 1 – mysterious, 2 – a rival expedition, 3 – a natural disaster, 4 – a group of monsters, 5 – an enemy army, 6 – brigands or pirates, 7 – betrayal from within, 8 – betrayal from trading partners.

Default: The debtor defaults and has no assets; the value of the loan must be written off completely. The character earns no return this month, and his investment is completely lost. The reason for the default is (roll 1d10): 1 – mysterious, 2 – casualty, 3 – theft, 4 – loss of key personnel, 5 - corruption, 6 – competition, 7 – debt jubilee, 8-10 bad judgment.

Deferment: The debtor is unable to make payments and has asked to defer payment on his loan. If the character agrees, he earns no return this month or for the next 1d6 months. Do not roll vagaries during this time. If the character refuses, he may seize the debtor's assets in repayment. The current value of his investment is reduced by 2d6x5% and then the investment is liquidated.

Delay: The expedition has been gotten lost, become imprisoned, had its inventory impounded, or otherwise held up. The character earns no return this month. If the expedition attempts to escape or push ahead, reduce the value of its investment by 2d6x5%. Otherwise, the character earns no return for the next 1d6 months, during which time no vagaries occur. The cause of the delay is (roll 1d8): 1 – mysterious, 2 – lost in wilderness/at sea, 3 – halted by inclement weather, 4 – held up at customs, 5 – imprisoned by government, 6 – captured by brigands or pirates, 7 – inventory impounded, 8 - internal crisis.

Discovery: The expedition has unearthed something of great worth. . The current value of the character's investment is increased by the percentage shown (2d10%, 2d6x5%, or 100%), or the discovery may lead to an adventure (Judge's discretion). The discovery is (roll 1d6) 1 - a treasure map, 2 – buried treasure, 3 – a hidden urban settlement, 4 – a new trade route, 5 – the confirmation of a legend, 6 – a place of power.

Disrepute: The character's business has fallen into disrepute due to slander by the competition, shady business practices, or just bad luck. The business's rate of return is halved this month and for the next 1d6 months. This vagary can be cumulative in its impact, halving the rate of return each time it occurs. An "Acclamation" or "Patron" vagary cancels this vagary as soon as it occurs.

Extension: The debtor is unable to make his payment this month and asks for an extension. If the character agrees, the amount will be paid in 1, 2, or 3 months, as noted. If the character refuses, he may seize the debtor's assets in repayment. The current value of his investment is reduced by 2d6x5% and then the investment is liquidated.

Fee: The business suffers a burdensome fee equal to 2d10% of the value of its investment. The fee is (roll 1d6) 1 – tariff, 2 – fine/penalty, 3 – legal expense, 4 – liturgy, 5 – licensing fee, 6 –bribery / extortion by magistrates. If the business is in a domain ruled by the party, this vagary can be ignored if desired.

Maturation: The debtor's creditworthiness has substantially improved. All future rolls on the Vagaries of Investment table are made as if the investment were one level less risky.

Monopoly: The expedition has gained a monopoly over its services. The monopoly is both local and temporary, but the expedition's current rate of return is doubled this month and for the next 1d6 months. A "Rival" vagary cancels this vagary as soon as it occurs.

Patron: The business has secured the patronage of a powerful or important customer. If the business is suffering from a "Disrepute" or "Racket" vagary, those are immediately cancelled. For the next 1d6 months, the business's rate of return is increased by 33% due to the patron's generous contribution and referrals. If an adventurer openly owns the business, the patron may be interested in the adventurer in some way (Judge's discretion). The patron is (roll 1d10) 1 – magistrate, 2 – senator, 3 – merchant, 4 – master craftsman, 5 – specialist, 6 – fighter, 7 – thief, 8 – mage, 9 – cleric, 10 – unusual (Judge's choice).

Principal: The value of the investment has increased due to changes in the market. After collecting this month's return, the character may immediately increase the current value of his investment by 2d10% and liquidate the investment if desired. If the character does not liquidate the investment, however, the value is not increased.

Protector: The expedition has garnered the protection of a powerful and authoritative figure in the region. If the expedition is suffering from a "Brigandage/Piracy" vagary, it is immediately cancelled. For the next 1d6 months, the expedition can ignore any "Annihilation," "Delay," "Decimation," or "Brigandage/Piracy" vagaries it suffers. If an adventurer openly owns the expedition, the protector may be interested in the adventurer in some way (Judge's discretion). The protector is (roll 1d10) 1 – a ruler, 2 – a military commander, 3 – a notorious brigand or buccaneer, 4 – a famous adventurer, 5 – a powerful monster, 6 – unusual (Judge's choice).

Racket: The business has become the target of an organized criminal protection racket. The business's current rate of return is reduced by 33% for as long as the racket continues. The racketeers will consist of NPC ruffians with wages equal to ½ the losses they are causing. Slaying the racketeers earns the ire of the local syndicate and increases risk by one level (e.g. from Cautious to Balanced) for 1d6 months unless the PC takes steps to address it (Judge's discretion). If the local syndicate is under the party's control, this vagary represents a rival syndicate trying to take a cut of the action. A "Patron" vagary cancels this vagary as soon as it occurs.

Repayment: The debtor has come into funds and is able to repay any late payments that may have resulted from an "Extension" vagary. In addition, if payment is currently being deferred due to a "Deferment" vagary, that vagary is cancelled.

Return (+/-%:) : The investment yields a return. If no modifier is listed, the return is equal to the current rate of return; there is no other vagary. If modified by a positive number, the return is increased by the relative percentage shown this month. If modified by a negative number, the return is decreased by the number shown this month, possibly yielding a negative return (loss). Losses can be paid by the character or deducted from the investment value.

EXAMPLE: A risky investment with a current rate of return of 3% will yield -3% on "Return – 200%", 0% on "Return -100%", 4.5% on "Return +50%" and 9% on "Return +200%".

Rival: The expedition is facing competition from a cut-throat rival that will stop at nothing to bring them ruin. The expedition's rate of return is halved this month and for the next 1d6 months. This vagary can be cumulative in its impact, halving the rate of return each time it occurs. A "Monopoly" vagary cancels this vagary as soon as it occurs.

Windfall (%): An unexpected windfall yields fiscal rewards. The current value of the character's investment is increased by the percentage shown (2d10%, 2d6x5%, or 100%). The windfall is (roll 1d6) 1 – an inheritance, 2 – a property appreciation, 3 – a business innovation, 4 – the failure of a competitor, 5 – a valuable endorsement, 6 – of mysterious origin.

Writedown: Market conditions are such that the character will never be able to recoup the full value of his loan completely. The character earns no return this month, and the value of his investment is reduced by 2d6x5%.