GRAS Newsletter 46

May 2012

Enterprise at Risk

Summary
The schadenfreude has been palpable the last weeks over JPMorgan Chase's trading debacle. As a predicable kneejerk reaction, VaR and other risk measures have come in for a lot of bad press again. But the issue is not whether VaR is evil. The issue is that failing to pass with sufficient marks on topics such as corporate governance, compliance and operational risk management the bank puts the whole Enterprise at Risk and invalidates measures like VaR. Risk measures presuppose an orderly environment – one with risk, but also one with low levels of uncertainty about that risk. In contrast, the EaR measure should add the level of control the bank enjoys, and that level should determine how the financial risk measures should be interpreted.

Dear reader,
The idea that risk management needs to be part of normal day-to-day activities needs no arguments in the current climate. The trading loss at JPMorgan Chase is another reminder that even units that are supposed to be hedging risks may end up increasing risk. The issue seems to be that it was too tempting to use the hedge for profit making as well as proper hedging, causing a $2b direct hit (or $5bn according to the WSJ), a 9.3% drop in market value on the day corresponding with a loss of $14b in equity value. The VaR jumped 93% overnight from $67m to $129m.

What is the real problem here?
The point to make here is not that risk management ought to prevent trading strategies from making the occasional loss, or even large losses. Nor is it entirely relevant that the VaR turned out to be massively understating the risk. After all, VaR is no more than a measure and is accompanies by stress tests, expected shortfalls and a host of other measures from concentration risk, liquidity aspects and other considerations. What really matters here is that the risk management cannot be restricted to such technocratic measures alone. The proper risk approach is extends to areas such as legal risk, compliance risk, IT security risk, and, in general, operational risk. According to the FT[1]: *Fitch Ratings downgraded JPMorgan by a notch to double A minus with a negative outlook, saying "the potential reputational risk and risk governance issues raised [by the loss] are no longer consistent" with a higher rating. Standard & Poor's put its rating for JPMorgan on negative outlook, saying the losses were "not consistent with what we have viewed as the company's sound risk-management practices".*

Starting with an EaR metric
The need to have sound risk management practices is commonplace. To move from facile slogans[2] to implementation, the notion of EaR must be operationalised. Here are some of the ingredients to

[1] Financial Times, May 11, 2012: *Bank shares suffer on JPMorgan loss*
[2] The previous newsletter mentioned a slogan (*All management is operational risk management*) that was suggested at one particular bank. Coincidentally (or perhaps as a sign that this is a meme going around) another bank on a different continent launched a similar slogan: *Compliance is our responsibility*. Nice though these slogans sound, they must of course be operationalised as well to have any effect and should not just remain empty statements.

build an EaR measure, which should be available in any bank. As an example, we will use a metric developed for a bank that wanted a consolidated view of their control capability. The starting point was a metric that combines control information from various control functions. It does not matter *who* discovers a risk or *who* defines an action to mitigate the risk. Early on, it was decided that the level of risk would be restricted to risks that are insufficiently controlled. This tuned out to be an important choice. It implies that no matter how many 'high' risks are described and defined, only those that have actions outstanding against them are covered in the metric. As a consequence, there is no penalty whatsoever to define risks, even high risks. Also, it was decided that 'low' risks, even those with actions outstanding would be weighted 0. This, however, is not a fundamental choice at all and can be changed if so desired.

Number of indentified risks with an open action

See an example below, where the rating in Table A looks only at the risks that have open issues. In this bank, there are four major control units, Audit, Compliance, Operational Risk and Product Control. We start by assigning points to all issues that have outstanding open actions. We assign 0, 1 and 4 points respectively for low, medium or high risk issues. See table A below:

Table A.
Number of OPEN items at 31.03.2012

	# of open items with risk level			*Overall*
	High	**Medium**	**Low**	*Rating*
Audit Findings	19	32	45	112
Compliance issues	4	10	0	26
OpRisk Issues (Including BCM, AML, Inf. Security)	12	27	32	75
Product Control Requirements	0	5	2	5
SUM	**35**	**74**	**79**	**202**

In this table, we see that there are 188 (= 35 + 74 + 79) risks that have outstanding actions, of which 35 are classed as high (18%). Is that acceptable? With the points attributed to high and medium risks, the risk rating for outstanding actions is 202. Is that high? Perhaps, but it must at least be qualified by another metric. What matters is that the open actions are resolved. Hence, *overdue* actions are a necessary extra metric to gauge the firms' capability to manage risk.

In table B, we list only risks that have overdue open actions. These are not just risks that were identified (which is in itself a good thing and which is a metric we do not employ), or even risks that have open actions (which can also be seen as a positive development) but these are risks for which actions are overdue. As a standard, we used a threshold for overdue of 90 days. Others use 180 days or sometimes 0 days or a combination. We use 1 point for such Low risks, 3 for Medium risks and 10 for High risks.

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Table B.
Number of OVERDUE OPEN items at 31.03.2012 > 90 days

	# of overdue items with risk level			Overall rating
	High	**Medium**	**Low**	
Audit Findings	10	15	25	170
Compliance issues	4	3	0	49
OpRisk Issues (Including BCM, AML, Inf. Security)	0	10	21	51
Product Control Requirements	0	0	0	0
SUM	**14**	**28**	**46**	270

In this table, we see that there are 88 (= 14 + 28 + 46) risks that have overdue outstanding actions, of which 14 are classed as high (16%). With the points attributed to high and medium risks, the risk rating for outstanding actions is 270.

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The firms' capability to manage risk is the cornerstone of an Enterprise at Risk measure. As part of the Board Risk Appetite statement, there should be acceptable levels for, among others, table A and B. In table C, we contrast the risk appetite scenarios for Audit ratings and Overall control ratings as a measure of EaR and, as an example, possible impact on VaR. In this example, some multiplier is associated with levels of overrun. The highest multiplier is then selected, which here in is 8.0.

Table C. Enterprise at Risk 31.03.2012

	BoM Risk Appetite	Actual Value	Overrun in %	VaR multiplier
Rating risks with outstanding actions				
Audit Findings	100	112	12%	1.2
Overall	225	202	-	None
Ratings risk with overdue outstanding actions				
Audit Findings	120	170	42%	4.2
Overall	150	270	80%	8.0

Conclusion

Before we can use financial measures such as VaR, we need to have some assurance that the governance and risk management itself is in order. One way to measure that is to contrast the Board Risk Appetite statement with actual values regarding that topic. This "Enterprise at Risk" measure, if simple enough, can be used to modify measures such as VaR as shown in the example.