



# Marketing Spending and Brand Performance Volatility

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*Marketing Spending, Revenue Volatility, Cash Flow Volatility, Marketing Metrics, Brand Risk*

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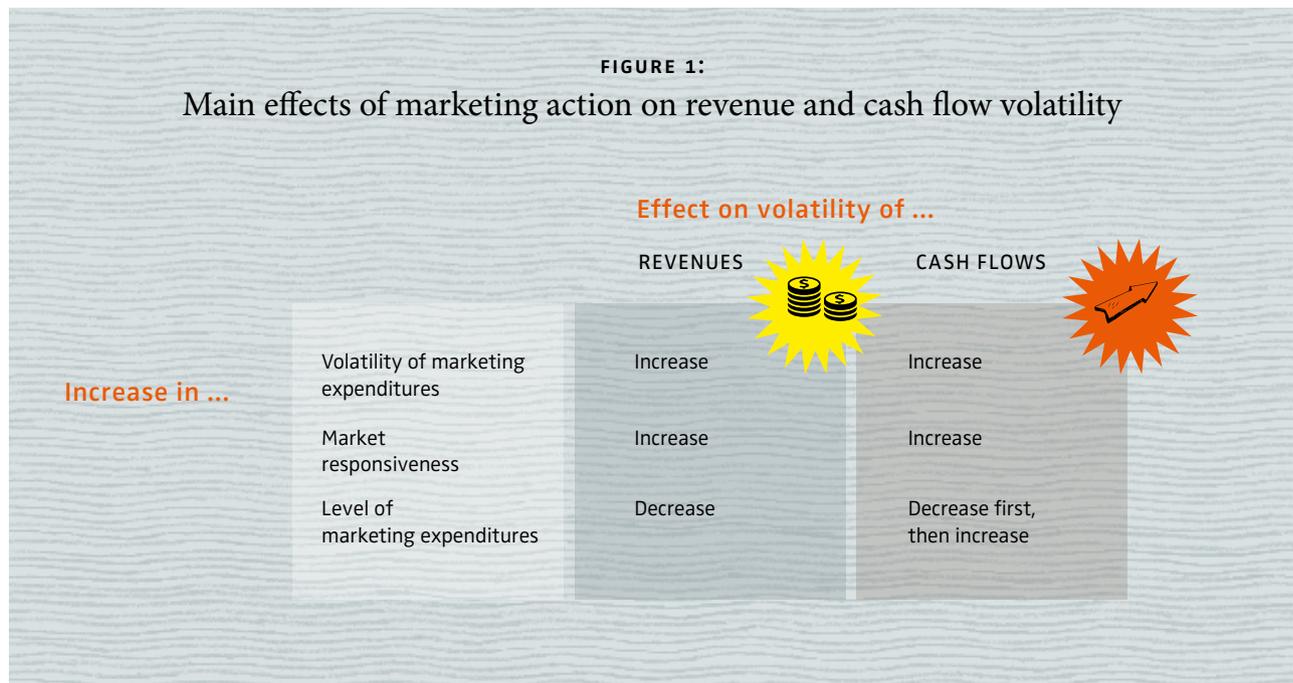
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**Consumers like to be surprised** /// A substantial part of successful marketing strategy consists of surprising the brand's prospects and customers with new-value propositions. For example, since consumers are known to "learn quickly and forget slowly," it pays to allocate advertising budgets in "spending bursts" in the form of campaigns, as opposed to spending evenly across the year. Similarly, offering sales promotions as "surprises" prevents consumers from anticipating them and strategizing their purchasing around below-normal prices. Likewise, new-product introductions should not be so predictable as to enable consumers to postpone their current consumption and wait for the new product to appear. These behaviors are even more relevant in cases when competitive reaction is fierce, so the brand's competitors cannot easily anticipate its marketing moves.

## **Finance managers and investors prefer predictability**

/// While the sales and revenue benefits of these marketing principles are generally known and often quantified by marketing analytics, their impact on revenue and cash flow volatility is typically ignored. And yet, such volatility effects are important from a financial perspective. Indeed, if company revenues fluctuate around two regimes, say one base-level regime and one marketing-induced regime, the resulting volatility makes it more difficult to project the company's future revenues and earnings and ensure steady cash-flow. This is known to lessen investor confidence and, as such, can harm the financial health of the brand. So, effective marketing can have undesired financial side effects.



As there may be a potential conflict between the typical marketing objective of sales impact maximization and stable revenue and cash flow generation, which are typical operations and financial management objectives, we set out to learn more about the interrelationship of these effects. We analyzed several predictions from theory with a large data set of 99 pharmaceutical brands from four European countries. Our aim was to estimate if marketing volatility effects were big enough to warrant executive attention, to identify drivers of marketing spending volatility and to learn about the optimal marketing expenditure level. Further, we investigated if companies actively manage volatility across their product portfolio and provide some recommendation on how to manage volatility risk.

**Marketing's volatility effects on financial performance can be substantial** /// Marketing volatility effects have clearly shown to be big enough to warrant executive attention. If marketing responsiveness is increased by 50 % – for example, as a result of improved targeting or messaging – then cash flow volatility can increase by as much as 55 %.

As a greater variability of cash flows forces management to hold larger cash reserves, this can have a substantial impact on the company's financial health. Marketing managers who decide on the timing of media plans, promotion plans, product launches, etc., should be aware that their marketing decisions can influence the volatility of both their top-line and bottom-line performance. Since marketing expenditure costs grow faster than revenues, because of diminishing returns, their impact on cash flow volatility is larger than on revenue volatility.

#### **Drivers of marketing-induced performance volatility**

/// Based on extant scientific knowledge of how brand sales respond to marketing efforts, we generated several hypotheses about volatility impacts, which our data supported. Figure 1 summarizes the conditions under which the volatility effects were stronger or weaker.

The higher the marketing spending volatility or the marketing spending effectiveness was, the higher the volatility in sales and cash flows turned out to be. Thus, on the one hand, larger response parameters are good news for marketing

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Different divisions should not execute  
their marketing campaigns at the same time,  
lest the resulting volatility effects of one  
are amplified by the other .



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managers because their expenditures produce higher sales. On the other hand, higher responsiveness has a dark side since it makes revenues and cash flows more volatile, even if spending volatility itself does not change. Quite in contrast, a higher expenditure level reduced revenue volatility, given the same level of spending volatility and marketing effectiveness. The impact of spending level on cash flow volatility is not as straightforward. Higher spending decreased the cash flow volatility for typical cash flow distributions only up to a certain level, but increased it beyond. This last finding creates ambiguity for the marketing executive, especially in light of the fact that cash flow is ultimately the more important metric for the financial health of the company.

#### **What we learned about the optimal expenditure level**

/// From the well-known Dorfman-Steiner theorem, we know that the marketing budget for a product should increase with its effectiveness and level of profitability. But what about the optimal budget if expenditures follow a volatile spending plan, which should be the rule rather than the exception in

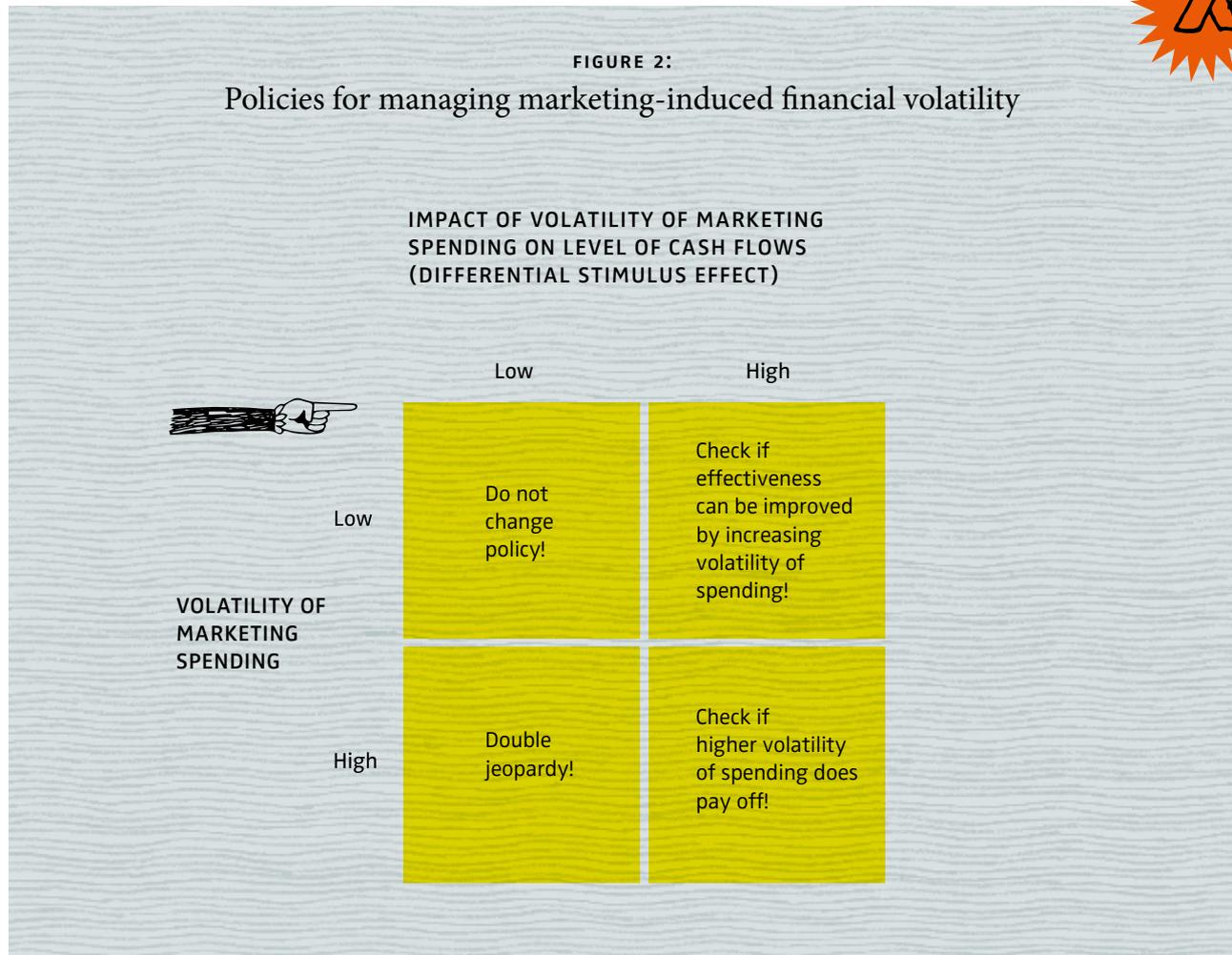
reality? Under the assumption that volatile spending such as advertising pulsing improves sales effectiveness, the optimal budget should be higher.

#### **Do companies manage their marketing-induced performance volatility? ///**

/// A professionally managed multi-product company could logically adopt the following strategy: Accept volatility within the marketing allocation for a single brand in the portfolio, but make sure that the volatility is dampened across brands. In practice, however, that condition is difficult to achieve, as each brand executive will strive to maximize his or her own business performance. Likely, they will have little interest in the future marketing plans of an unrelated brand, for example, a brand in an unrelated category. Our empirical analysis of ten years of quarterly marketing spending of our 99 pharmaceutical brands supported this conjecture: When marketing spending for a given brand in a given market went up, the marketing spending of sister brands in other markets was either unaffected or went up as well. Thus, the argument that harmful volatility effects can



**FIGURE 2:**  
Policies for managing marketing-induced financial volatility



be managed away in the multi-product company appears to be much easier said than done.

**Managerial implications** /// In managing their shareholder expectations and communications, financial executives pay close attention to the behavior of earnings over time. Ideally, earnings will exhibit a steady upward trend, with as little volatility around that trend as possible. Meanwhile, the marketing executives of the same enterprises try to make their marketing as impactful as possible by increas-

ing spending volatility at the brand level. In doing so, they may well induce volatility in revenues and earnings not only at the brand level but also at the company level. By taking into consideration the following advice, this downside can be monitored and eventually managed.

- > **Manage volatility effects across brands and divisions** /// The inherent conflict in managerial objectives may be resolved – at least for the multi-product company – by financial executives closely monitoring the marketing

plans of their divisions. The idea is simple: Different divisions should not execute their marketing campaigns at the same time, lest the resulting volatility effects of one are amplified by the other.

- > **Monitor and manage possible tradeoffs between marketing spending and revenue volatility** /// Beyond cross-company balancing – which is admittedly easier said than done – companies should incorporate the volatility-inducing effects of their marketing in their marketing resource allocations. Figure 2 summarizes the tradeoffs between marketing effectiveness and marketing-induced volatility and offers managerial advice. It depends on the impact of volatile spending on level of cash flows or, in short, its differential stimulus effect.

stimulus effect is high, you need to check whether raising spending volatility will lead to higher overall gains, taking into consideration its financial side effects. If the differential stimulus effect is low and your spending volatility is low, you are fine. However, if the differential stimulus effect is low whereas your spending volatility is high, that is an undesired position and appropriate actions are required.

In sum, the optimal marketing behaviors derived with and without volatility calculations will be quite different, and analytically savvy companies will be able to gain competitive advantage from this realization.

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If company revenues fluctuate, the resulting volatility makes it more difficult to project the company's future revenues and ensure steady cash-flows.

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For example, if your company's marketing spending volatility is already high, you need to check whether the differential stimulus effect is high enough to justify the potential negative side effects of your volatile spending. If your spending volatility is relatively low while the differential

## FURTHER READING

*Fischer, Marc; Shin, Hyun S. and Hanssens, Dominique M. (2016): "Brand Performance Volatility from Marketing Spending," Management Science, Vol. 62 (1), 197 – 215.*

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