

Dear Readers,

At the latest since the world-wide economic and financial crisis of the last years there have been reports of increasing volatility in the business world. These reports have warned us of the challenges and problems of this development for companies while at the same time pointing towards possible opportunities. The members of the *Ideenwerkstatt* (Dream Factory) of the International Controller Association (ICV, see imprint) would like to use their current focus “**Staying Ahead of Boom and Crisis – Volatility Controlling**” to investigate the phenomenon of volatility more closely. They will assess the extent to which volatility has increased, if at all, and investigate the implications for controlling.

Reactions to increased volatility focus above all on the two concepts of resilience management and of increasing changeability. From the controlling perspective, it is necessary to derive demands upon the function of decision-making support for management. The *Ideenwerkstatt* wishes to use these demands to evaluate and possibly adapt existing controlling instruments for use in a volatile environment.

In this context we are also very interested in suggestions and experiences from the controlling community. Is your company facing increased volatility and, if yes, how is it coping? Does volatility influence the management style in your company and have your controlling instruments and processes been adjusted to suit the changed conditions? We would like to hear your comments on this issue.

Email: [AAschenbruecker@ipri-institute.com](mailto:AAschenbruecker@ipri-institute.com)

We wish you interesting and informative reading.

Yours,



Péter Horváth

und



Uwe Michel

### Green Controlling Prize | Péter Horváth Foundation

To foster initiatives in controlling to tackle the “Green Challenge”, the Péter Horváth Foundation in cooperation with the *Ideenwerkstatt* of the ICV is awarding a prize for the most innovative and effective “green” controlling solution for designing and managing ecological strategies, programs, projects and measures in companies and the public sector.

The prize will be awarded to controllers or teams of controllers. The prize-winning solution will receive €10,000. The prize ceremony will take place at the 10th Controlling Competence Stuttgart (CCS) of the ICV on 29th November 2012 in Stuttgart. You may submit all solutions for consideration which have been implemented since 2011.

Please submit your green controlling solution by **31st August 2012** to the Péter Horváth Foundation at:

Péter Horváth Foundation, [phorvath@ipri-institute.com](mailto:phorvath@ipri-institute.com)  
c/o IPRI gGmbH,  
Königstraße 5,  
70173 Stuttgart

Your green controlling solution should be submitted based on the following structure in no more than ten pages:

- Which problem needs to be solved?
- What is the underlying concept of the green controlling solution?
- What makes the concept innovative?
- How is the green controlling solution implemented?
- Which role does the controller play in concept, implementation and application?
- How can the results or the impact of the solution be assessed from economic and ecological standpoints?

Further information can be found at

<http://www.controllerverein.com/iw>,

at the offices of the ICV and from Mr. Andreas Aschenbrücker, IPRI gGmbH, Stuttgart.

E-Mail: [AAschenbruecker@ipri-institute.com](mailto:AAschenbruecker@ipri-institute.com)

## The Volatility Phenomenon | Old Wine in New Wineskins?

Volatility and its associated uncertain and highly turbulent future is a phenomenon which crops up regularly. Back in 1862, Abraham Lincoln spoke about a “turbulent future”. Peter Drucker published his famous work “Managing in turbulent times” in 1980. In the face of the differing perceptions in circulation of what volatility actually is, it is necessary to clearly define and delineate volatility in order to create a uniform platform for further discussion of this issue.

### Volatility – one of the greatest challenges for corporate management today.

There have been numerous reports in recent years reports of increasing volatility in the business world. Both academics and experts and managers from business practice regard volatility as one of the ten key issues for the future of controlling (Schäffer, Weber 2012), while consulting firms are also dealing with volatility and the challenges of increased global risks (cf. McKinsey 2010, KPMG 2012).

A high degree of volatility has ongoing effects on the daily work of the controller, also beyond the influence of the traditionally volatile financial markets. A budget for material costs defined at the beginning of the year can lose all validity within weeks due to heavily fluctuating raw materials prices. Forecasts for sales figures, for example, can become totally unattainable due to product launches by competitors, especially in times of ever-shortening product life cycles.

The *Ideenwerkstatt* currently sees volatility as the greatest challenge for corporate management and will investigate the phenomenon of volatility more closely in their study on the topic “**Staying Ahead of Boom and Crisis – Volatility Controlling**”.

### What is volatility??

The term volatility is used in many different disciplines. In general, volatility is defined as the short-term fluctuation of a time series around its median value or trend. In the economic

sciences, in particular, volatility is a much-used but not clearly defined term. For the upcoming work of the *Ideenwerkstatt* of the ICV, we have found a first working definition. We want to define volatility as **the unforeseeable bandwidth and frequency of fluctuation of external and internal economic parameters relevant for a company, the patterns of which cannot be or can barely be predicted.**

This very broad definition covers many events, for example the volatility of raw materials prices and the shift in demand and competitive positions, e.g. due to shorter product life cycles and technological change, but also the strong economic fluctuations which we have seen since the financial crisis of 2009.

### Complexity, dynamics and volatility

With what it terms turbulence, literature on scientific research has long been dealing with a concept similar to volatility. This summarizes “the whole spectrum of the occurrence of complexity and dynamics in the corporate environment” (Buchner 2002, p. 94). In this context, complexity describes the number and diverseness of corporate factors and their correlations. Dynamics is the frequency, speed and strength of changes to individual environmental aspects (cf. Horváth 2011, p. 3). Accordingly, high dynamics leads to high volatility.

At this point it is important to make it clear that high volatility does not necessarily go hand in hand with high complexity (see Figure 1). However, volatility does not become a problem until the system is sufficiently complex. When complexity is low it is more possible to take appropriate steps to counter frequent and grave changes in state. If complexity rises, however, the causal effects between the factors also increase. The impact of high volatility is hard to predict and it is difficult to react appropriately.

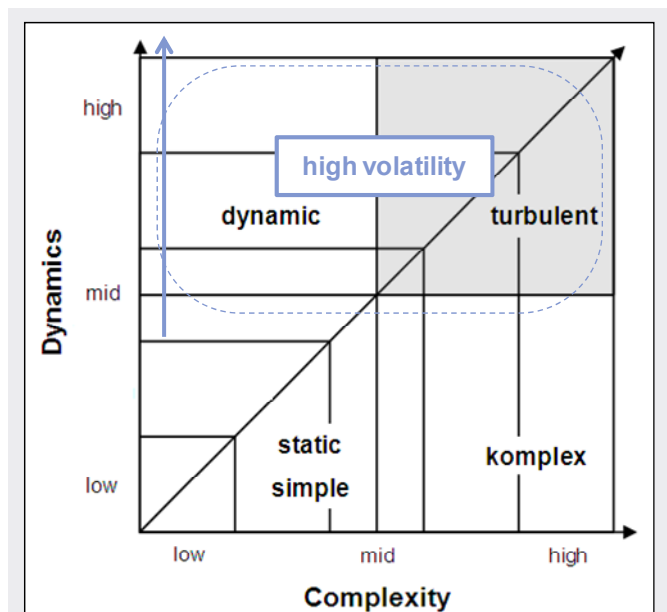


Figure 1: Volatility in a turbulent Environment  
(in Anlehnung an Buchner 2002, S. 97)

### Volatility in your company

The upcoming Dream Car Report will tackle an issue which has yet to be clearly defined but is nevertheless on everybody's lips: Volatility. In particular, it will investigate the effects of volatility on the world of controlling. Your individual experiences in this context are of great interest to us for this report:

- Which experiences has your company had with volatility?
- How is volatility affecting the management in general and the controlling function in particular in your company?
- Which concrete measures have been taken?

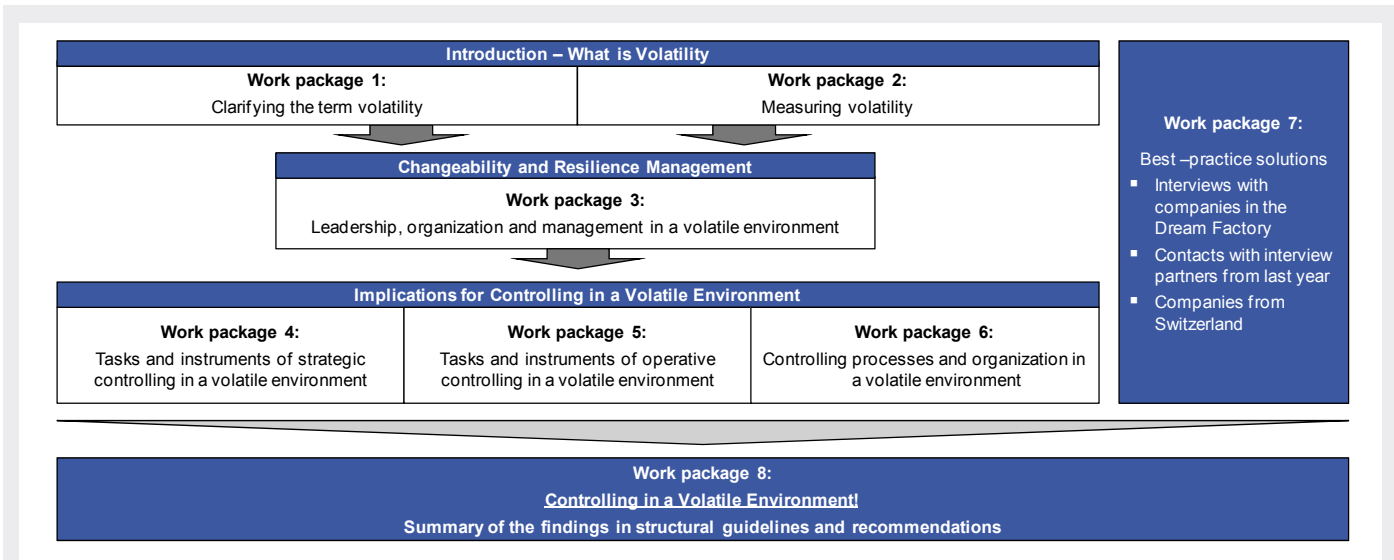


Figure 1: Approach of the *Ideenwerkstatt* for the Dream Car Report.

**Dream Car Report:  
Staying Ahead of Boom and Crisis – Volatility Controlling**

The upcoming Dream Car Report of the *Ideenwerkstatt* will take an exhaustive look at the issue of volatility. The core team of the *Ideenwerkstatt* will break volatility and its effects on management and controlling down into eight work packages and investigate them very precisely (Figure 2).

**Measuring volatility**

The first two work packages will explain the term volatility and create a platform for measuring it. When looking at the corresponding literature it becomes clear that any yardstick for volatility depends very heavily on the specific discipline. What the models have in common is the approach of standard deviation for measurement.

The most-developed models for measuring volatility are used in finance. There, volatility is used as a measure for estimating a risk or the strength of fluctuations for securities, indices or portfolios. Examples for measuring volatility include:

- Standard deviation of logarithmic yields,
- Start and finish price of every trading day coupled with fluctuations across the day’s trading, and

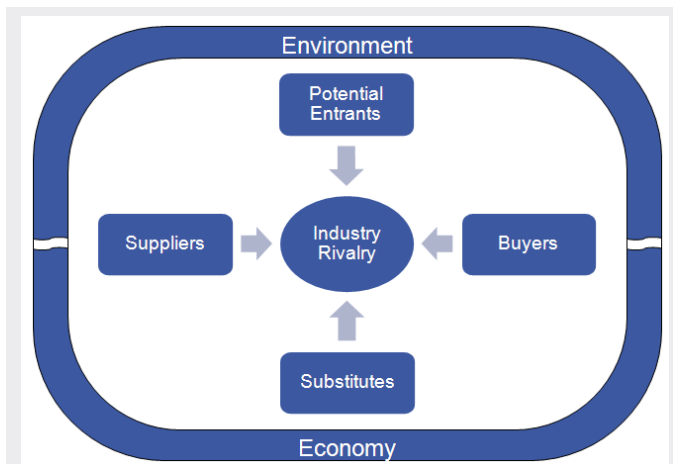


Figure 2: “Seven Forces Model” for analyzing volatility

- Complex models which make assumptions on the underlying probability distributions and analytical connections.

**Volatility in the corporate context**

At the corporate level, in particular, volatility is often described as a subjective, qualitatively experienced phenomenon of accelerated change; however, this is done without operationalizing the concept of volatility. In doing so, this broad definition of volatility leads to a generalization of the perceived effects. In order to be able to take a differentiated look at the development of volatility and its influence on controlling, it is necessary to investigate fluctuations in the factors which influence companies and thus identify indicators of volatility. What is important here is to carry out a company-specific analysis of relevant indicators and not to develop a general measurand.

In our opinion, an expansion upon Porter’s “Five Forces Model” (Porter 1980) to include influences from the environment and the economy in a “Seven Forces Model” for analyzing volatility (Figure 3). This should identify the characteristics of what influences volatility and what volatility influences for individual companies in order to facilitate a differentiated view of the impacts upon companies. The objective of the *Ideenwerkstatt* is to derive example indicators of volatility for companies and to use them to analyze the impacts of changes in volatility upon company success.

**The impacts of volatility**

The starting point for further observations is the two management concepts of changeability and resilience management. Both can contribute to corporate performance management in volatile environments (see Changeability and Resilience Management | Answers to Increased Volatility). Based upon these concepts and experiences from the business world, demands and impacts of volatility on the tasks and instruments, together with processes and organization, of controlling should be derived.

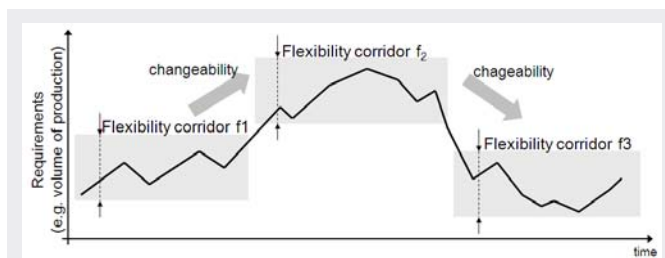
## Changeability and Resilience Management | Answers to Increased Volatility

The decisive question in the context of a volatile environment is how the management team can react to the demands of high volatility. Answers to this question can be found in the creation of changeability and in resilience management, which goes far beyond the bounds of pure risk management and the creation of flexibility. As controlling is always an instrument of decision-making support for management, these two concepts can be used to derive demands upon controlling and its instruments in a volatile environment.

“Companies are seen as versatile (able to change) when they are able to adapt their organization and resources permanently to changing conditions in their order situation in the short-, medium- and long-term” (Westkämper, Zahn 2009, p. 11). The core aspects of changeability are:

- Pre-think, analyze and assess change,
- Create versatile structures for the organization,
- Monitor and react proactively to change, and
- Ensure profitability.

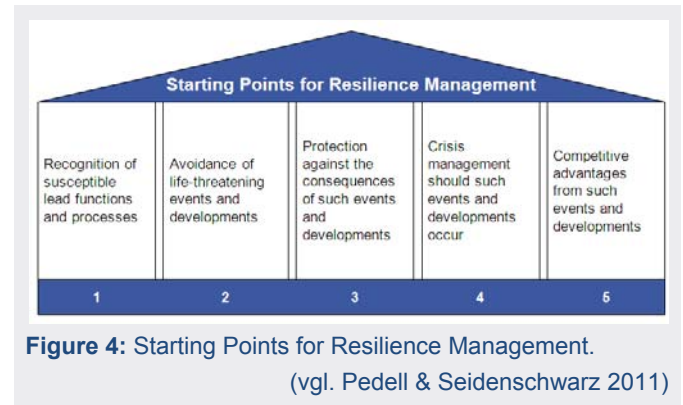
Changeability is a more advanced form of flexibility. Flexibility allows a company to adapt to changing influences along a given corridor of flexibility. If a system is able to change (versatile), however, it can be transferred from one flexibility corridor to another with little effort. Changeability is a potential to shift the possible flexibility corridors through organizational and technical modifications (Figure 4) (cf. Nyhuis et al. 2008, p. 24).



**Figure 3:** Flexibility corridors and changeability.  
(vgl. Nyhuis et. al 2008)

Resilience is “the ability to also deal robustly and constructively with unexpected and life-threatening events and developments and [...] to be able to use these to build up

organizational skills from which in the future [...] events can lead to prompt willingness and ability to change” (Pedell, Seidenschwarz, p. 153). Thus, resilient companies are robust in the face of fluctuations and can gain competitive advantages in a volatile environment.



**Figure 4:** Starting Points for Resilience Management.  
(vgl. Pedell & Seidenschwarz 2011)

Starting points for resilience management lie in recognizing susceptible functions/ processes and in avoiding, protecting against and the (crisis) management of life-threatening events (Figure 5).

Risk management is a part of resilience management but it is not the same thing. Resilience management must bring integrated risk controlling and strategic management together and coordinate the inter-dependencies between risks (cf. Pedell, Seidenschwarz 2011, p.155). Based upon the identification of susceptible functions and processes, the whole company must be aligned robustly against both known risks and what are known as “low probability/ high impact events” (Sheffi 2006, p.11).

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Head of:  
Prof. Dr. Dr. h.c. mult. Péter Horváth  
Dr. Uwe Michel  
www.controllerverein.com/iw

#### Editing:

IPRI-Institute gGmbH  
Dipl.-Kfm. Dipl.-Sportwiss.  
Andreas Aschenbrücker  
Königstraße 5  
70173 Stuttgart  
Telephone: +49 (711) 620 32 68-0  
Fax: +49 (711) 620 32 68-889  
AAschenbruecker@ipri-institute.com

#### Members of the Ideenwerkstatt:

Manfred Blachfellner, ICV  
Siegfried Gänßlen, Hansgrohe AG  
Dr. Lars Grünert,  
Trumpf Laser GmbH & Co. KG  
Prof. Dr. Heimo Losbichler,  
FH Oberösterreich  
Manfred Rimmel,  
manfredremmel strategieconsulting  
Karl-Heinz Steinke,  
Deutsche Lufthansa AG  
Prof. Dr. Dr. h.c. Jürgen Weber,  
WHU - Otto Beisheim  
School of Management

#### International Controlling Association

Main Office  
Post Box 11 68  
D-82116 Gauting  
Leutstettener Straße 2  
Telephone: +49 (89) 89 31 34-20  
Fax: +49 (89) 89 31 34-31  
www.controllerverein.com  
verein@controllerverein.com