



With Supplement "Latin America"

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Baroque Fortifications

Even to the present day, the fort and the city of Kronach in Upper Franconia are defined by enormous fortified walls. The historical Fortress Rosenberg consists of an impressive "pentagon keep". Engineers are trying to retrace the architectural history of these baroque fortifications and, in doing so, have even coaxed stories out of ancient stone-masons' marks. **Page 4**

Looking for Clues

The manuscripts from the Benedictine monastery of St. Emmeram's Abbey in Regensburg are an important part of Germany's cultural heritage. They reflect a wealth of nuances of the culture and of everyday life in the Middle Ages. What the monks wrote and collected long ago now bears witness to pronounced literary interests and far-reaching contacts beyond the local region. **Page 12**

Coping with ADHD

More than 650,000 children and teenagers suffer from ADHD in Germany. But it is not only the children who are affected by the attention deficit and hyperactivity disorder – the people around them suffer as well. Researchers from a number of different disciplines are studying the complex causes and the background to this disorder and are looking for new therapies to treat it. **Page 29**

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Cover: Sommer / IFM Geomar

The Impact of Climate Change on Water Resources

Diatoms are a form of phytoplankton. They may be solitary or chain-forming, such as the Chaetoceros pictured. Increasing water temperatures will significantly affect these organisms. **Page 21**

Christine Windbichler

The Financial Crisis and Academic Research

The disaster in the financial markets is of concern not only to economists – science, in all its diversity, is challenged as well

cific causes of the disaster in the financial market?

Criticism focussed first on managers of large banks and financial institutions and then later increasingly on politicians and the government for its role as a regulator. Nevertheless, the scientific community must ask itself if the prediction, the fighting, and the prevention of such global downturns are not among its most fundamental duties.

Having asked the question, one quickly arrives at an equally surprising as double-edged finding: There was, by all means, an abundance of scientific publications available that warned of a financial crisis, suggested measures, and analysed the causes. But there were just as many

studies published that assumed undiminished growth. Some received attention, some were ignored. In the current crisis of global scale, scientists are at best advisors, not actors – unless a scientist has been appointed to a high political office, such as Ben Bernanke, chairman of the U.S. Federal Reserve.

But the scientific community must accept the role of an advisor, a task for which it is perfectly suited. Viewed in this way, the financial

to the market economy. A futurologist announced that he had warned of the financial crisis ages before it occurred, its sole cause being the greed of the global financial acrobats. Greed is one of the seven mortal sins: a topic, perhaps, for theologians as well?

Business ethics is on the advance not only as a buzz word, but as a research field as well. Long ago, I saw the following graffiti sprayed by squatters on a house: "Profit-

crisis quickly becomes an opportunity for science in all its diversity – a diversity as is represented and promoted under the umbrella of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), the central, self-governing organisation of science and research.

All disciplines can serve the role of an advisor, not only the economic sciences, which naturally come to mind first, or the historical sciences and mathematics, which one might think of next. But specialists from other disciplines feel summoned, too, sometimes the right people, sometimes the wrong people. A sociologist recently called for an end

addiction is curable." A topic for medical doctors, psychiatrists in particular? Is there a pathological greed syndrome? And who has it? Certainly not only bank managers are susceptible, but also people who buy houses that they cannot afford, the mortgage brokers who provide them with financing and who then earn a commission, the auditors who evaluate the mortgages without even looking at the houses, and the sellers of financial products who provide services for their employers and their employers' customers.

If the general human inclination towards money is at issue here, the topic would be better served by psychologists. It is a question of decision processes and incentive mech-

anisms, learning curves and peer pressure. In recent years, economics and psychology have been increasingly joined into behavioural economics. Psychologists Kahnemann and Tversky were awarded the 2002 Nobel Prize for Economics for their "Prospect Theory", which explains human decisions under different conditions and circumstances on the basis of empirical studies, a concept that clashes with the rational maximisation of benefit as the initial

mercial law, civil law and regulatory law. Corporations, insurance companies or mortgages don't grow on trees; they are useful inventions.

Everything that is traded on the financial markets is, in one way or another, a product of law. The individual transactions follow legal rules. The institutional framework (stock market, central banks, etc.) is not built of brick and mortar, but rather of law, legislation, and contract. The state can create a prod-

acutely at the moment. Legal scholarship examines governance options and the need for legal control, often using international comparisons and collaborating with other disciplines.

In light of the financial and economic crises, there are ad-hoc rescue measures and economic stimulation under consideration. To implement such measures, an appropriate legal framework must be in place. From a scientific perspective, all spotlights point to long-term regulation: What rules are necessary in order to avoid the tipping of conventional market risk into systemic risk? After all, that individual deals go sour cannot be prohibited by law. When do individual economic mistakes lead to downward spirals, to system failure? Scholars of commercial law, political economists and business economists agree that the financial service providers must be better equipped with own funds. Implementation of this requirement, in turn, requires legal tools: e.g. international treaties, EC directives, regulation of the financial industry, endorsed accounting standards, etc. But this is just a small first step.

The upcoming research projects are, thus, very interdisciplinary. The physicist or epidemiologist may be able to assist in determining how and when simultaneous individual events trigger an avalanche effect. Natural scientists and psychologists can help lawyers and management scientists assess risks. There is little room for such endeavours in day-to-day university operations. The diverse funding portfolio of an organisation such as the DFG, with quality-safeguarding selection procedures, is much better suited for such work. Researchers should take advantage of the opportunity that is open to them here.



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Foto: HU Berlin

assumption in Neoclassical economics. Kahnemann and Tversky demonstrated, for example, the overestimation of one's own abilities as well as, depending on the situation, an increased willingness or aversion to accept risks. Which brings us back to the financial crisis.

The call for governmental sanctions is fuelled by rage and disappointment. What do legal scholars have to say about the financial crisis? Criminal law deals with the behaviour of individuals who have committed a previously defined criminal offence. Crimes have certainly been committed. What often escapes the legal layperson, however, is the broad field of com-

duct through laws or administrative acts. On a private level, contracts or articles of association can establish a binding set of rules for the participants. In this vein, commercial law represents an element of infrastructure in the same way as do utilities, transportation facilities or a telecommunication system. Such elements of infrastructure can be provided by the government itself or by the private sector, in which case it is subject to government regulation.

Law is tightly linked to the state, governmental action and enforcement – i.e. it is essentially a national affair. But the real economy and the capital markets interplay internationally, a fact that we are feeling