

# bulletin



The Credit Suisse Magazine Since 1895 Number 4 Oct./Nov. 2007  
International Edition

## East

**Point Zero** Follow an Epic Journey to the Prime Meridian  
**Seeing Green** Abu Dhabi Builds First Zero-Carbon City

**In Depth** Credit Suisse CFO Believes in Bold Innovation  
**Solar Energy** Bright Future on the Horizon  
**Robotic Helpers** Japan's Future Caregivers?  
**Arthur Cohn** An Oscar Winner With Big Dreams

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We fight against the exploitation of children.



**I'm a "Westerner" by upbringing, in two respects:** geographically, and ideologically. My hometown of St. Gallen, Switzerland, is situated between two parallel ridges of hills running east to west. Its business center divides the city neatly into an eastern and a western part. Those of us who grew up on the west side felt superior, as to our young, judgmental eyes the east looked shabby, bleak and uninspiring by comparison. In fact, we only had one reason ever to cross the imaginary dividing line: the Espenmoos football stadium.

Ideologically speaking, I grew up during the height of the Cold War. The Berlin Wall and the "death strip" divided the world into two camps: good and evil, the free West against the totalitarian East. It was either one or the other, the world over. For us Europeans this side of the Wall, the West stood for progress, liberty and prosperity. By contrast, just beyond Austria, a common European heritage notwithstanding, a reign of terror endured that spelled oppression and pitiful plainness. Somewhere further beyond was the Far East, a mystery of even greater proportions. Strangely enough, Japan, known as the land of the rising sun, had been considered part of the West since the 1960s. Apparently, ideology supersedes geography.

In 1989, the Empire of Political Evil imploded, and capitalist, Western values steamrollered into the communist East without spilling a drop of blood. At once, the anonymous, submissive masses behind the Wall were perceived as friendly faces. The Iron Curtain had been pushed aside, and travelers stepping across were welcomed by stunning swathes of countryside and hurriedly spruced-up towns. The Far East, once seemingly so remote, also became a growing focus of Western interests. Developing nations were transformed virtually overnight into industrial superpowers. Even China, the last great bastion of communism, has by now been permeated by Western ideas. Formerly clear-cut borders have suddenly blurred, making the East ideologically non-existent, yet paradoxically omnipresent.

In this Bulletin we therefore define the East in purely technical terms as the hemisphere to the right of the prime meridian, designated as the dividing line between East and West in 1884 by 25 nations in Washington, DC. For this reason, our eastbound journey also sets out precisely where the prime meridian intersects the equator, at the zero point between North, South, East and West.

My childhood years are long behind me, and I became an "East Ender" in my hometown some nine years ago. My own children now mock the beloved West of my youth. And the world turns – yet again – eastward.

Daniel Huber, Bulletin editor-in-chief



The background of the advertisement features a wide, sandy desert landscape under a clear blue sky. In the distance, a modern city skyline with numerous skyscrapers is visible across a green field. In the foreground, a dark-colored horse stands on the sand. A young person wearing a white equestrian helmet and light-colored clothing is seated on the horse. An older man dressed in traditional white Middle Eastern attire, including a ghutra and agal, stands beside the horse, holding its reins. The overall scene suggests a blend of tradition and modernity.

Some think  
two generations.

**We think  
succession  
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**Bulletin 4/07** Where am I and where am I going?  
The question of our own relative position has preoccupied humans since time immemorial. The East – where the sun rises – has been a constant point of orientation. Architecture, navigation, daily life – they all take their cue from the “mother of all directions.”

<b>East</b>	06	<b>Geographical Origins</b> How Greenwich Came to Separate the East and West
	08	<b>Epic Journey</b> Artists Travel to the Prime Meridian to Sink a Monument
	14	<b>Going Green</b> An Oil Emirate Plans a Zero-Carbon, Zero-Waste Oasis
	18	<b>Eastern Influence</b> Why Architecture Around the Globe Faces the Rising Sun
	22	<b>Controversial Theory</b> Was It the East That Discovered the West?
<b>Credit Suisse Business</b>	27	<b>In Brief</b> Business News from Switzerland and Abroad
	29	<b>World Future Energy Summit</b> Where Alternative Energy Solutions Take Form
	30	<b>In Depth Interview</b> CFO Renato Fassbind Believes in Bold Innovation
	32	<b>Market Switzerland</b> Credit Suisse's New Strategy Bears Fruit in Switzerland
	34	<b>Useful to Know</b> From the ABC of the Financial World
<b>Credit Suisse Commitment</b>	35	<b>In Brief</b> Building Schools in China and Kid's Day at Credit Suisse
	36	<b>Museum of Fine Arts Bern</b> Exhibition on India's Contemporary Art
	38	<b>Enduro Challenge</b> Employees of Credit Suisse Win Triathlon for Charity
	40	<b>Polo in Russia</b> Sport of Kings Gains Footing in Moscow
	41	<b>Swiss Golf</b> Crans-Montana Sponsored for 20th Year
<b>Economy</b>	42	<b>Global Macro Outlook</b> The World Economy Is Under Pressure
	44	<b>Forecast Switzerland</b> Swiss Economy Is Still Booming Despite Global Pressure
	46	<b>Education Woes</b> Rapid Economic Growth Demands More Educated Workforce
	48	<b>Solar Energy Market</b> Big Breakthrough Imminent Thanks to Subsidies
	50	<b>Robotic Helpers</b> Japan Looks Forward to Service Robot Boom
	53	<b>Literature</b> Book Tips for Business People
<b>Leader</b>	54	<b>Arthur Cohn</b> The Oscar-Winning Film Producer Is a Dreamer
<b>At a Click</b>	58	<b>@propos</b> When Viruses Were Still Personalities
	58	<b>In Focus</b> Join the Online Forum on Sustainable Investments
<b>Publishing Details</b>	53	Where to Find Us

Geographical east is an arbitrary concept. Of course, the east has always existed as a direction – the question of one's own relative position and the problem of reproducing a locational definition is a recurring theme throughout human history. But where today's east starts and finishes was established only around 120 years ago. In 1884, 41 representatives of the then 25 most powerful countries in the world assembled at a conference in Washington, DC at the invitation of US President John Tyler, and decided that the zero meridian should pass through Greenwich, England. San Domingo (now known as Haiti) opposed the decision, while Brazil and France abstained. However, the rest voted for Greenwich, and so, by cartographical convention, the east was fixed at its current position.

The concept of the “east” naturally encompasses far more than just the question of where it starts or stops. It also covers far more ground than a single edition of the Bulletin can in treating it as a central theme. The stories that follow cannot claim, therefore, to present a complete picture of the planet’s eastern hemisphere. They are intended rather to entertain – and in the best-case scenario to allow readers looking for the bigger picture to discover the remaining pieces in the puzzle for themselves. ba



**East**

# Expedition to Point Zero

**At approximately 600 kilometers south of the coast of Ghana, the zero-degree longitude meridian bisects the equator. This is geography's "point zero"— used by everyone and yet universally ignored. An artistic collective resolved to give this neglected patch of the earth a physical anchorage. This is the story of their journey.**

Text: Marcus Balogh

Approaching point zero was not supposed to have been like this. Adventurous – yes. But perhaps not quite such an on-the-edge experience. Yet now it felt like staring into an abyss. For weeks, the four-strong artistic collective FallerMiethStüssiWeck (FMSW) had been looking for a ship that would take them to the geographical "point zero" of the earth – to the place where the equator bisects the zero-degree meridian that was originally set at London's Greenwich. In other words, the place where the traveler is both at position N 0° 00' 000" E 0° 00' 000" and S 0° 00' 000" W 0° 00' 000" at the same time. Also known as the source of all positions of the world, and the mother of all lines of latitude and longitude. Yet their search for a ship was proving fruitless, and despite the team being so close to their goal, the money was now threatening to run out and the return flight – for which the tickets had already been issued and paid – loomed ever larger on the temporal horizon. All this even though the original idea had seemed so strikingly simple.

## FallerMiethStüssiWeck Approach Nothingness

Geography's point zero lies in the Gulf of Guinea, around 600 kilometers south of the coast of Ghana. Despite being the reference point of every geographical position determined around the world, this point is a neglected site, both on the globe and in the Atlantic. This is astonishing considering its importance. "We actually need the absolute point zero in our lives more than we do the Himalayas, for example – yet the Himalayas have been climbed many thousand times over, and have appeared millions of times in newspaper columns. By contrast, there is nothing at point zero, nobody has been there, and nobody appears to be interested in it," muse the four members of FMSW – in the interview, the four members continu-

ally took turns to speak, often changing speaker in mid-sentence, thus making it almost impossible to assign individual statements to any one of them.

It was no coincidence that FMSW became intrigued by this somewhat mysterious point zero. The quartet of Lina Faller, Susanne Weck, Marcel Mieth and Thomas Stüssi founded the artistic collective FMSW at the Kunsthochschule (College of Art) Berlin-Weissensee back in 2001. Since then, their work has involved a continuous search for their own position both figuratively and literally. For instance, armed with a global positioning system (GPS), FMSW had a ship "write" figures and forms on the surface of the Baltic Sea. With this artistic excursion, and in most of their endeavors, the coordinate system of latitude and longitude has played a significant role. And once one begins contemplating the coordinate system, one inevitably ends up at the starting point of all measurements – point zero.

Point zero owes its existence to a cartography convention in the 19th century. It was not until October 1884 that the zero meridian was agreed at the International Meridian Conference in Washington DC by representatives of 25 nations. Up until that point, many countries possessed their own zero meridians, typically the geographical line of longitude of their own capital city or of an astronomical observatory. International shipping was the only major user of the Greenwich meridian. Despite the potential for conflict inherent in establishing a zero meridian – after all, what was being decided upon was the most prestigious of all lines of longitude – the conference came to a peaceful ending.

In their project documentation, FMSW describe point zero as the "origin and center of any geographic orientation – yet not >

0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180°



0°/0°

THE ABSOLUTE POINT ZERO  
Whether on the moon or,  
as recently, with a Russian  
submarine at a depth of  
4,621 meters below the North  
Pole - humans leave their  
tracks wherever they can.  
Only the absolute point zero  
has been ignored until now.

0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180°



**The corrosion-resistant container will preserve the vacuum for several thousand years even at a depth of 5,000 meters, where the water exercises a pressure of 500 kilograms per square centimeter. The voyage on a container ship was not just a restful experience – the ship's captain also provided FallerMiethStüssiWeck with tips for dealing with the challenges of life in Africa.**

coveted by anyone, not fought over by anyone, and not marked by anyone, despite being used by everyone." In view of the importance and yet incomprehensible neglect of point zero, the four artists decided to give it a material anchorage: "Our first idea was to plant a buoy at the site. But this would have been a seriously complicated exercise. The ocean is around 5,000 meters deep at that point, so we could hardly have anchored the buoy with a chain." Laying a foundation stone was the next idea that sprang to the minds of the collective. In keeping with the old tradition, contemporary documents could have been inlaid into the stone – but this concept struck the collective as too narrow-minded. Ultimately, their thoughts turned to the idea of an object with symbolic value – an object that represented nothingness itself. And so it was that the conversation of FMSW landed on the idea of a vacuum. "We became fascinated with the idea of sinking a vacuum at the spot. The 'big bang' concept dawned on us at this point – because this was tied up with the notion that everything that exists today stems originally from nothing. And so we set out to find out just how and where people work with vacuums."

FMSW ended up with a Berlin-based franchise of an international company that provides electron-beam welding services to power-station manufacturers and heavy industry. The very first telephone exchanges were promising. The technical specialists were excited by the artistic idea, and the artists were excited by the technology. Ultimately, a high-grade steel block weighing 140 kilograms was used to create two semicircular pieces, each weighing

20 kilograms. These semicircular pieces were then seamlessly welded together by technicians in a high vacuum without the use of any binding material. The result? A stainless steel ball with a circumference of 25 centimeters containing an approximation of nothing: a vacuum of 0.000001 bar.

#### **FMSW Pass the Point of No Return**

The issue now was how the steel ball was to be transported to its final resting place. Not an easy undertaking. Just boarding a plane was immediately ruled out. "We had conceived this undertaking as a pilgrimage, as a journey to the center of the cartographical world. What was important to us was not just arriving at our destination, but the gradual approach." For a moment, even the idea of traveling to Ghana by car was on the table. But this was perceived as too dangerous by the expedition's sponsors, the Bonn Art Foundation (Stiftung Kunstfonds Bonn) and the German Academic Exchange Service (Deutscher Akademischer Austauschdienst). All of which left passage by sea as the only option.

The Expedition toward Zero began in Hamburg on May 8, 2007, on board a container ship belonging to the Grimaldi shipping company. From Germany the route led to Tilbury, a port in the East End of London, then on to Antwerp, Dacca, Benin and Lagos, before finally docking at Tema, the largest port in Ghana, some 25 kilometers from Ghana's capital Accra. The voyage itself was uneventful. "The slow journey was intended to empty our heads. To enable us to get close to the 'zero' phenomenon. How exactly can zero



**When it first became apparent that the journey would start the next day, FMSW in their excitement bought boxes of fruit for themselves and the crew. The fruit then gradually rotted in the hotel room, as inevitably it was several days before the last stage of the journey could get under way and the steel ball was conveyed to its final resting place.**

and nothingness be defined? When is something something, and when is nothing nothing?"

On a less philosophical level, the weeks spent aboard the ship to Tema gave the artists the chance to make friends with the captain and the ship's crew. "The captain was great. He gave us countless tips for dealing with African authorities and bureaucracy. And he also alerted us to what we might be faced with when it came to hiring an oceangoing ship in Tema. He exhorted us in particular not to chose too small a vessel, and to make sure that whatever vessel we did hire was fitted with sufficient lifeboats. Actually, we found the last remark more than a bit spooky."

The group's first encounter with the reality of Africa was their exchange with the Ghanaian customs officials. "Our captain had stocked up with cases of soft drinks, cigarettes and sparkling wine, as he took the view that this was the best way to ensure a smooth passage through customs upon arrival, cutting an eight-hour procedure down to just one."

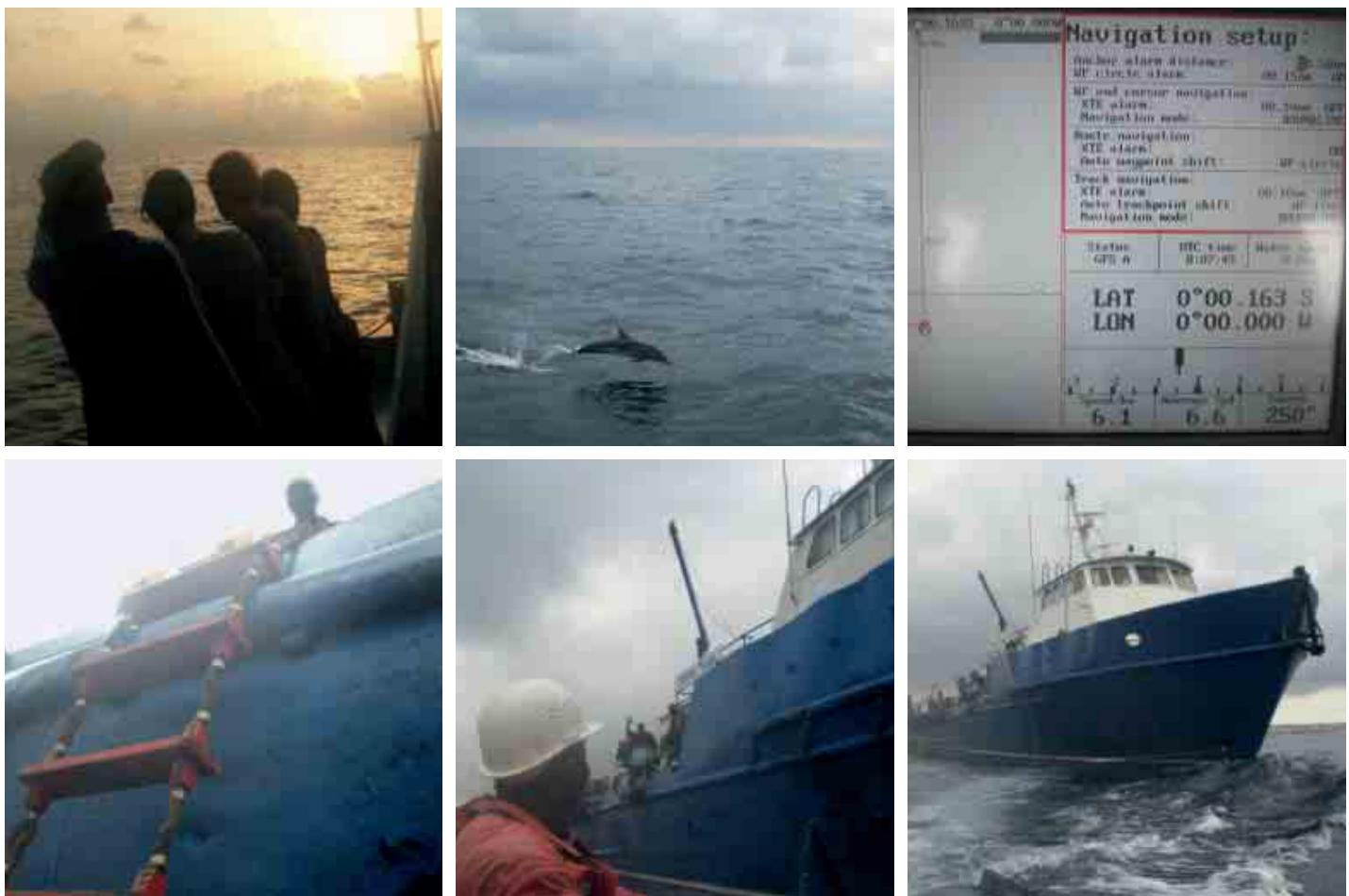
Sure enough, the customs procedure lasted just the one hour. The officials even seemed to be enthusiastic about the idea of sinking a steel ball at the starting point of the world's coordinate system. "For some reason they seemed to like the idea of such an important point lying just off the coast of Africa. It was as if the geographical position of the point allowed them to hold some spiritual claim on something that benefits the entire world." Upon arrival, FMSW set about finding a suitable ship for the passage to point zero. In hindsight, the search for the right ship was probably the most difficult

part of the whole enterprise. On the telephone everything always seemed as if it would be perfect, but in reality most of the ships the artists looked at proved unfit for their purpose. Either that, or much too expensive.

Time and again, FMSW's quest for a suitable mode of transport came to a dead end – and now it was not just the money that was running out, but time itself, as the tickets for the return flight had already been booked and paid. "When planning this back in Germany we just thought we'd arrive in Tema, choose a ship and off we'd go. But Ghana is not Germany. It was a bit like a journey to the heart of darkness. We don't mean that in any derogatory way at all. We just realized that things work differently there – no better, no worse. Just differently."

But then somehow things fell into place. They found a vessel fit for the high seas, with an owner and captain who came across not just as trustworthy but also enthusiastic about the whole undertaking. And the price seemed right, too. The whole trip was to cost 9,000 dollars. More than FMSW had budgeted for, but in Ghana it proved a competitive price. The only other hurdle remaining was the fuel required for the voyage, or around 15 tons of diesel.

"Fuel in Ghana is not the kind of thing you would think about in advance. But fuel seemed to be only sold through a central agency. And the person running this agency is a kind of king in his own right – this much was clear to us the moment we entered his office. The rule in Ghana is that the cooler the office, the more important the man behind the desk. And this office was the coldest we'd >



This journey was not as romantic as the first couple of photos suggest. Thanks to raging seas, the final stage involved a sleepless night, while the precise circumnavigation of geography's point zero required endless patience in a small inflatable dinghy. Time and again, the current and the swell caused FMSW to fear losing contact with their mother ship.

come across during our entire stay in Ghana." The oil baron's first offer was 15,000 dollars, a sum that made it clear that the project could now only be completed with significant financial commitment from the artists themselves. But this sum far exceeded what the group could muster.

And so began a hard bargaining process, in which the ship's owner also became involved. "At the end of it we managed to gain the concession of a flat fee of 17,000 dollars for ship and fuel together." FMSW agreed to the amount even in the knowledge that they didn't actually have that sum of money with them. "At that moment we all became aware that we were staring debt in the face, as our sponsorship money didn't extend this far. But having come such a long way, we wanted to see the project out – and the point of no return obviously had been passed for good a long time ago."

#### FMSW Circle Point Zero

The average speed of the ship FMSW hired was 18 kilometers per hour. As the point at which the equator bisects the zero latitude meridian is 600 kilometers off the coast of Ghana, the artists were facing around 34 hours simply in terms of cruising time – one way. Added to which was the time required for calculating the precise point zero. All in all, therefore, it was going to be a long, drawn-out affair.

While the crossing from Hamburg to Tema had proceeded uneventfully, the last 600 kilometers turned out to be a nightmarish journey. The sea was rough, with the swell so high that even the

captain had to leave the bridge twice to lean over the ship's rail. What's more, contrary to the original agreement, the ship contained two further passengers for whom FMSW theoretically had to assume complete responsibility: a priest and his assistant. "Somehow this priest had got wind of our enterprise and decided that no trip to the absolute point zero could be achieved without God's assistance. So without further ado he and his assistant embarked – the captain proving no match for the eloquence of an African priest. So, at the last minute, the Expedition toward Zero was subjected to a mass – in which the whole crew participated – that consecrated it to God's stewardship."

As they approached point zero, the four artists got into an inflatable dinghy with a view to working their way slowly toward the point in circles with the aid of a GPS navigation device. "To start with it was pretty awe-inspiring. The swell was enormous, the current strong, and we kept on being driven away from our goal. At times we even lost sight of our mother ship. And there was the odd moment when we asked ourselves: What do we do if we're driven off course?"

Reaching the ultimate zero point on the GPS device took hours. Time and again, the small inflatable dinghy was tossed off course by a wave or by the current. "But when you've come that far, you want to do it just right. Just chucking the ball somewhere in the water was simply out of the question." Finally heaving the 40-kilogram ball over the side was a unique experience for the collective. "It was a leave taking. And it wasn't easy for us. Somehow it



Saying goodbye to the ball was not easy for the artistic collective. It was like taking leave of a friend, as FMSW would later say. Moreover, the realization that the trip to the seabed would involve a journey of 20 minutes for the steel ball in total darkness also added a sense of eeriness to the final minutes.

felt rather ignoble just releasing the ball here. All the more so because there was something quite eerie about its subsequent journey to the seabed." Sinking at a speed of around 4 meters a second, the steel ball faced a journey of about 20 minutes before it would reach its final resting place at a depth of 5,000 meters. However, the aim of the expedition was not just to mark point zero. FMSW also brought back 50 liters of "zero water" from the intersection of the equator and the zero degree line of longitude meridian. In addition, the quartet also bathed in "zero water." These last two activities were the cause of great excitement among the crew. Even the captain – who couldn't actually swim – leapt into the water with a life ring around his chest.

Looking back on their artistic expedition today, FallerMieth-StüssiWeck appear amazed at the naivety with which they undertook the project – and also express surprise at how the project keeps coming back into their minds. "Of course, at some point you have to say goodbye to any project, even one like this. But that sunken steel ball is now just lying there in the cold darkness. It's a touching notion that leaves us anything but cold. The ball may still be lying there long after the coordinate system with the Greenwich meridian as the zero line ceases to exist. Even today, the project keeps throwing questions at us. For example, how we deal with ephemerality and eternity. And then you think: This action has probably changed our view of the world map forever. Every time we look at the globe, our eyes come to rest briefly on point zero and we think: That's where it lies!" <

**FallerMiethStüssiWeck (FMSW)** The artistic collective is made up of Lina Faller, born 1972 in Schopheim, Germany, Marcel Mieth, born 1976 in Kandel, Germany, Thomas Stüssi, born 1978 in Zurich, Switzerland, and Susanne Weck, born 1978 in Munich, Germany. The four sculptors met at the Kunsthochschule Berlin-Weissensee and since 2001 have worked regularly as a collective. The central point of much of their work is the quest for their own position, often using the GPS system – the same as is used in navigational systems of modern cars, for example – as a metaphor.

The art project "Toward Zero – The Expedition to Point Zero" was supported by the Bonn Art Foundation (Stiftung Kunstfonds Bonn) and the German Academic Exchange Service (Deutscher Akademischer Austauschdienst).

# Abu Dhabi Prepares for a Green Future

**Fifty years ago, Abu Dhabi was a sleepy emirate on the Persian Gulf and the main trades were fishing and pearl-diving. Then oil came, bringing wealth and many advances. Now Abu Dhabi is preparing for the post-oil era, and targeting luxury tourism, culture, and the development of alternative energy sources. Fifty years from now, everyone will want to live there.**

Text: Daniel Huber

Even as recently as the 1980s, the overweight, but lovable comic-strip cat Garfield considered Abu Dhabi synonymous with a far-flung eastern outpost at the world's end. In a number of different episodes he wishes that his arch rival, Nermal, the terrifyingly cute kitten, could be transported there, even going as far as singing a bittersweet "Abu Dhabi song." Today cartoonist Jim Davis would certainly choose a different location now that Abu Dhabi has become a booming city in the Middle East. The "Father of the Gazelle"—Arabic for Abu Dhabi—is the capital both of the emirate of the same name and of the United Arab Emirates (UAE). The emirate itself is not only the largest, but also—thanks to its huge oil and gas reserves—by far and away the richest of the seven emirates. Approximately 10 percent of the world's crude oil reserves and some 5 percent of its gas reserves sit underneath Abu Dhabi territory. Given these natural jewels, experts estimate that Abu Dhabi will be able to rely on fossil fuel wealth for decades to come.

As a result of the vast wealth brought by its capacious oil wells, the one-time fishing and pearl-diving village situated on an island—which did not even have its first paved road until 1961—has spent the last 20 years evolving into an imposing metropolis. In contrast to neighboring Dubai, which is looking to establish itself as an international transport, tourism, and finance hub between Europe, Asia, and Africa, Abu Dhabi has opted not so much for size as restrained class. The city therefore has a more modest feel, with high-rise buildings that are impressive rather than enormous, alongside verdant parks and palm-lined boulevards. Abu Dhabi's answer to the Burj Al Arab seven-star hotel in Dubai was to spend some three billion dollars on the Emirates Palace Hotel, which may not look as spectacular as the monumental "sail" of Dubai, but goes a step

further when it comes to interior luxury and comfort. From the point of view of topography, Abu Dhabi has the decisive advantage of being able to fall back on some 200 natural islands to house its ambitious tourism projects, with no need to resort to the artificial measures that are required in Dubai. As a general principle, the well-heeled visitor to Abu Dhabi can expect more than just sun, sea, sand and luxury suites. In 2009, for example, the exclusive Formula One circus will include a stop-off in Abu Dhabi for the first time. Directly alongside the 5.8-kilometer, state-of-the-art race circuit, a large Ferrari "experience" park covering some 250,000 square meters is being built on the island of Yas. In addition, the global village of art cognoscenti can look forward to a museum quarter of superlatives on the previously uninhabited island of Saadiyat. A total of five modern exhibition temples will emerge from the sands by 2015. The showpiece will be a satellite of the world-famous Louvre in Paris, but the site will also boast an offshoot of the Guggenheim Museum in Los Angeles. These monumental structures will be designed by the elite of modern architecture: Jean Nouvel, Frank Gehry, Zaha Hadid and Tadao Ando.

## Energy Experts Take on Reins of Responsibility

But the far-sighted rulers of the emirate are not just relying on the glamour of motor racing and the lure of fine culture. As long-term energy experts, they also consider themselves responsible for leading the alternative technologies of the future into a new phase. It was with this in mind that the Abu Dhabi Future Energy Company (ADFEC) launched the Masdar Initiative, among others. Masdar means "source" in Arabic. The initiative is seen as an answer to the growing shortage of global resources, and combines a number >



55°

ABU DHABI A glimpse into the future:  
In Masdar a compact network of shaded streets  
will encourage walking. There will also  
be a personalized rapid transport system.

0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180°

0° 15° 30° 45° 60° 75° 90° 105° 120° 135° 150° 165° 180°

of different projects aimed at supporting the development of new technologies in the realm of alternative energy, and marketing these technologies globally. Of course, one objective of the initiative is to ensure that Abu Dhabi can retain its share in the global energy market in the medium term, and even increase it in the long term.

#### **Vision of a CO<sub>2</sub>- and Waste-Free City**

The most spectacular project of this initiative is the world's first CO<sub>2</sub>-neutral, waste-free city in the heart of Abu Dhabi. In an area of six square kilometers, situated next to the new airport and with the sparkling sea at one side, work is in progress to create a walled-off city with no cars. The new city of the future, called Masdar, is being built in two phases. The first step is to construct a 40-megawatt photovoltaic power station. The energy created by this factory – generated in a CO<sub>2</sub>-neutral manner – will first be used to power the construction of the city, which is expected to open its gates by the end of 2009. Masdar will be a unique concentration of research and training sites, and to a certain extent also of production sites for alternative energies. Specialized financing and marketing companies will also move into the city, however. The idea is that not only researchers, students, scientists, financial experts and political scientists will work in this confined area, but that they will together breathe life into their visions. Architecturally speaking, the project will combine the density of an enclosed city with the latest technologies emerging from alternative energies. Where transport technology is concerned, Masdar will be home to a new high-speed rail network that will connect this pioneering city of the future with the city of Abu Dhabi. The general aim is to ensure that the distance to the next public transport stop within this extremely compactly constructed city is never more than 200 meters. A second construction phase will see a number of wind parks, photovoltaic farms, research fields and other installations built outside the city walls. Ultimately, the vision of a self-sufficient city in every respect could soon become a reality for the first time – and in Abu Dhabi. <



**The world's first attempt to create a zero-carbon, zero-waste city will be built in the heart of Abu Dhabi on a six-square-kilometer site next to the new airport.**

## **Discussing Future Energies and Abu Dhabi's Vision With Dr Sultan Ahmed Al Jaber**

**Why of all things is one of the world's leading oil patrons setting its sights on the development of new, alternative energies? And how will Abu Dhabi look 40 years from now? The CEO of Masdar, Sultan Ahmed Al Jaber, provides these answers and more.**

Interview: Daniel Huber

Bulletin: **Driving from Dubai to Abu Dhabi, the many trees along the highway and the mangrove forest on the outskirts of the city, and the many lush parks in the city center are very striking, mainly because this is actually the middle of the desert.** Sultan Ahmed Al Jaber: It was always the desire and the vision of the late Sheikh Zayed bin Sultan Al Nahyan that Abu Dhabi should be a green city. These trees represent great wealth to us.

**For decades, Abu Dhabi has played a leading role in the oil and gas business. Immense reserves mean that this will remain so for some time to come. With this in mind, why is Abu Dhabi, of all places, committed to the development of new, clean energy sources?**

That is another legacy from Sheikh Zayed's clear vision. He firmly believed that, although Abu Dhabi would always have a central role to play in the energy business, it must also stand apart as an environmentally aware nation. That is why the primary purpose of the Masdar Initiative is to seek new ways and means of tapping into clean energy sources. As long-established energy experts, we see the move in this direction simply as a natural and logical step.

**How well accepted is the Masdar Initiative among the populace of Abu Dhabi?**

The people of Abu Dhabi are completely behind it. Our former president firmly anchored in all of us this understanding of ourselves as a leading energy nation with a great environmental conscience.

**Do you regard this strategy of sustainable, environmentally friendly energy production simply as a sustainable investment in the future of Abu Dhabi and the United Arab Emirates?**

I firmly believe the Masdar Initiative transcends borders. It offers an open, global platform for companies not only from the UAE, Africa or Asia, but also from those around the world. Long ago, we began to hold talks with European, Asian and North American companies that can make a crucial difference to the development of solutions for the production of alternative, clean energies. And we have also entered into several alliances.

**Seeing how Abu Dhabi has mushroomed out of the sand within just half a century makes one believe that anything is possible. And yet, couldn't a rapid breakthrough in the development of new and alternative energies come too soon for your own oil industry?**

No. Alternative energies will not compete with traditional hydrocarbon fuels. At most, they can be a complement to them. However, they can help to bridge the widening gap between the growing demand for energy and the supply available on the global market. The

world will always need oil, even if it is only for the industrial production of certain materials.

**The Masdar Initiative aims to attract 1,500 firms from around the world to Abu Dhabi by 2015 ...**

That is our goal. I'd give a conservative estimate of 1,200 companies relocating to Abu Dhabi by 2015 as entirely realistic.

**What sort of incentives are you offering these companies to come to Abu Dhabi?**

We're offering these companies a unique package. Currently the alternative energies sector is scattered throughout the world. Abu Dhabi is offering these companies the exclusive opportunity of a joint global platform for the development of alternative energies. The city will be located in a special zone with extremely business-friendly conditions. For example, there will be no taxes of any kind there. Another benefit will be a very straightforward and efficient registration process, with all of the bureaucratic formalities handled centrally. Companies will have direct access to a pool of highly educated experts that is globally unparalleled. This is reinforced by our cooperation agreement with MIT and the Masdar Research Network which provides access to seven of the world's best research institutions on three continents. What's more, there will be specialist boutique shops that will help them to finance and market new companies and projects. It will be a very integrated community.

**But people can't just work all the time. Where will people live and spend their leisure time?**

Our aim is that 30 percent of the people who work in the city will also live there. The city should have something going on around the clock, and shouldn't become a ghost town when work is finished for the day. With that in mind, it will be anything but isolated. It is to be built in the heart of Abu Dhabi with direct connections to the airport and to the sea.

**How will people get around in this amazing CO<sub>2</sub>- and waste-neutral city?**

There will be no cars at all within the city. Under the master plan, residents should never be more than 200 meters away from the most important places in their daily lives. People will walk or cycle or use special electric vehicles. There will also be a direct fast train link to the airport and to the center of Abu Dhabi.

**A life without cars in the Middle East is hard to imagine.**

**Will people really want to do without this freedom of mobility, not to mention status symbol?**

People living and working in Masdar certainly won't have to do without their cars completely. There will be large, secure car parks outside the city, so anyone who wants to can easily drive their Ferrari or any car for that matter right up to the city limits. From that point on, however, they'll have to use emission-free vehicles.

**While we're on the subject of Ferrari – in 2009 Abu Dhabi will be getting its own Formula One circuit on the island of Yas, with a Ferrari adventure park alongside it. Doesn't that conflict with your Masdar Initiative to some extent?**

Not at all. On the one hand, Abu Dhabi is an energy expert committed to developing new and forward-looking technologies. On the other, it wants to offer its residents and visitors entertainment at the highest level. That also includes this state-of-the-art racing circuit, as well as the Ferrari Park. I see that much more as a great addition to Abu Dhabi than as a conflict with the Masdar principles. Green projects don't always have to be boring!



**Dr Sultan Ahmed Al Jaber is the Chief Executive Officer (CEO) of the Abu Dhabi Future Energy Company (ADFEC), which is mandated by the government to undertake and drive the Masdar Initiative. Previously, he held various positions with different responsibilities within ADNOC/GASCO. Dr Al Jaber is also an advisor at Mubadala Development Company where he has held broad responsibilities that included direct project origination and execution in the energy, industry and utilities sectors and relationship management with key multinational companies and government institutions. He also sits on a number of boards of companies and organizations. Dr Al Jaber holds a Ph.D. in economics with emphasis on foreign direct investment from Coventry University, UK, an M.B.A. and BSc in chemical engineering from the University of Southern California, Los Angeles.**

**Let's venture a glimpse into the more distant future.**

**How will Abu Dhabi look in 2050?**

Let's consider Abu Dhabi in 2030. I can assure you that Abu Dhabi will then be a place where everyone will want to live. The city will look completely different to how it looks today. For example, the center will no longer be here on the island, but north of the airport, where it will be built from the ground up. Yes, Abu Dhabi will be a very different place in 2030. <

**World Future Energy Summit** Abu Dhabi will host the first World Future Energy Summit from January 21 to 23, 2008. The summit will be hosted by Masdar and will feature some of the world's foremost specialists and drivers of future energies in an exhibition and conference forum. The conference will host approximately 200 of the world's most renowned speakers and professionals in clean energy. There will be also a 14,000-square-meter exhibition. The event is expected to be the largest gathering of its kind in the world. Further information available at [www.masdaruae.com](http://www.masdaruae.com).

# Aligning Architecture With the Rising Sun

**For thousands of years the points of the compass have played an important role in architecture to provide orientation between the heavens and the earth. Throughout the ages, and across many different cultures, one direction was most favored – the east. Countless cities and dwellings have been built in alignment with the east, which is also the path of the energizing morning sun.**

Text: Regula Gerber

The place where the sun rises has special significance: The sun is the giver of life and light, and divides the day, month and year into cycles that are beyond man's influence. For millennia, this realization has left its mark on the everyday life, religion, and consequently the architecture of cultures far and wide for example in India, China, Rome and Greece. Archaeological research and excavations have shown that these ancient civilizations shared a common underlying store of knowledge. But the motivations and mechanisms behind their architecture, particularly the way buildings have an easterly orientation, are different. While in many cultures this orientation signifies a metaphysical link between architecture and religion, for others the primary justification has been one of consideration for health or function.

## The Direction of Power and Strength

Ancient sages from both East and West were exceptionally skilled at observing natural phenomena. This included studying the laws of the cosmos, especially the stars. Cultures like China and India have aimed to improve the quality of life by having people live in harmony and balance with the forces of nature. For this reason, philosophies such as Feng Shui in China and Vastu in India have played an important role in architectural traditions, focusing as they do on the points of the compass and their effect on human health and well-being.

The direction of the rising sun, the east, is of eminent significance in the Vastu system of architecture in particular. According to historians, this tradition goes back 8,000 or 9,000 years. Vastu was an integral element of everyday life in ancient India. Cities, palaces, temples, private homes, theaters and military fortifications were all constructed according to its principles. The architectural principles of Vastu are largely based on the properties of the different points of the compass. Every direction has a distinctive quality, which is considered both in the design of the building and in the layout of its interior. This quality affects everything located or moving in this direction.

East, northeast and southeast have special significance. According to Vastu, east is supreme because it is the place where the sun and its energy rise. It is considered the best direction, stands for wealth and prosperity, and is described as paternal in nature. It is ruled by Indra, lord of the demigods, who embodies power and strength. Vastu recognized long ago that the morning sun was particularly beneficial for living things. That's why sunlight from the northeast and southeast is especially valued. Olivera Reuther, a Berlin architectural engineer, who follows Vastu principles in her designs, agrees. "The rays of the morning sun should fall directly on the house and the land it is built on. For this reason, one should not build on the northeastern, eastern and southeastern areas of a site," explains Reuther of how she uses the theory in practice. >

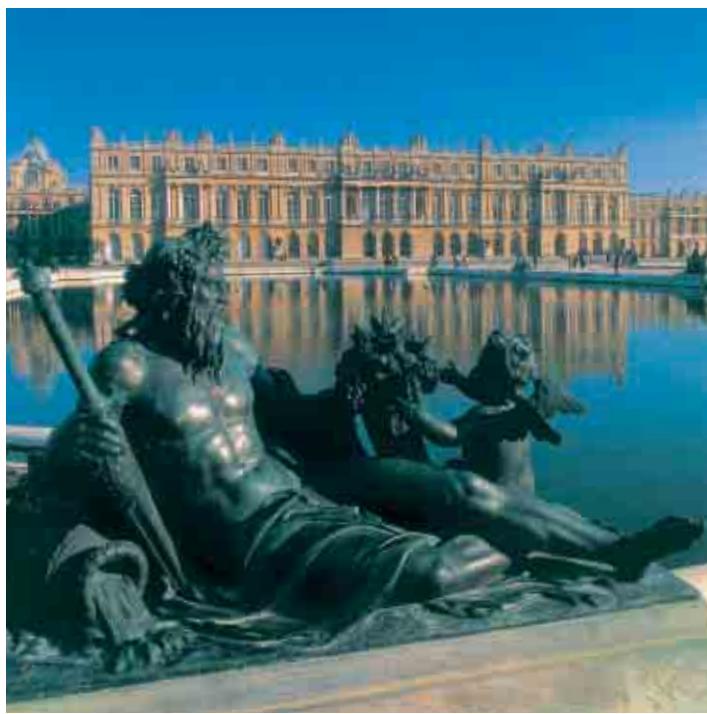
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78°

SRI WEENAKSHI TEMPLE COMPLEX IN MADURAI The temples in Madurai, India, are built according to Vastu architecture, which dates back thousands of years. In this system, the east is given preeminence among the points of the compass.



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**Versailles** This baroque palace outside Paris is an extremely impressive and consistent example of an east-facing design. A residence of the kings of France, it particularly bears the stamp of Louis XIV, the legendary Sun King. The entire chateau and its extensive gardens are oriented due east. All the symbolism was designed to represent the Sun King as the new Apollo. Every morning, exactly in the center of the chateau, an elaborate ceremony attended by the entire court accompanied the waking of the king, and a similar ceremony was held when he went to bed. This was a way of projecting the course of the day (something that by its very nature could not be controlled) onto the sovereign.

"It's a good thing for the main entrance of a house to face east. The windows on the eastern side should also be bigger and more numerous than in the other directions. Areas such as the bathroom and kitchen that should be kept particularly clean are best located in the eastern or southeastern part of a building. It's also a good idea for your head to point east when you sleep, eat, cook or meditate." Vastu is currently experiencing a revival in India, and interest in the West is growing as well, especially in connection with Ayurveda. These ancient teachings are still perfectly preserved in buildings like the temple city of Madurai in southern India.

#### Of Oriens and Anatolae

Although only part of the Vedic scriptures have survived to this day, there is a comprehensive work on architecture from classical times. "Ten Books on Architecture," written around 33 B.C. by Marcus Vitruvius Pollio during the reign of Emperor Augustus, was a milestone for architectural theory in the West. Vitruvius, too, said that

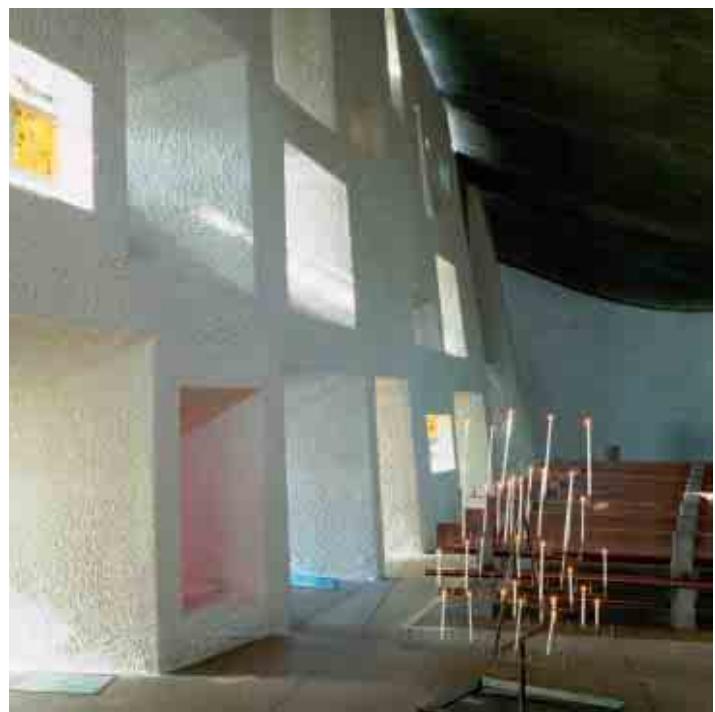
dwellings and cities should be aligned to the path of the sun and directions of the wind. But in secular architecture pragmatic considerations prevailed, such as the surrounding land, the needs of inhabitants or natural features; these were the kind of factors that influenced how buildings were constructed. The aim was to build in a way that was appropriate and health-promoting. For example, Vitruvius recommended that instead of building city walls in line with the hot or cold points of the compass, they should be aligned along the more moderate east-west axis, allowing favorable winds to blow through the streets and thus preventing damage to the houses. On the other hand, bedrooms and libraries should be located in the eastern part of buildings because, as he wrote, when in use they should enjoy the light of the morning sun.

East was also considered an important direction in sacred architecture such as altars and temples. "If there be nothing to prevent it, and the use of the edifice allow it, the temples of the immortal gods should have such an aspect, that the statue in the cell may have its face towards the west, so that those who enter to sacrifice, or to make offerings, may have their faces to the east as well as to the statue in the temple," wrote Vitruvius. It was not only the Greeks and Romans who used this eastern orientation. Other cultures that existed around the Mediterranean basin in the first millennium B.C. used it as well. One of the most important elements in ancient temples was that the altar should be aligned toward the east. The cult statue faced west, and the main entrance of the temple was to the east, provided the site allowed for this. The word "orientation" is related to the word for "east," coming from the Latin word "orients," which means rising; the Greek word for east is "anatolae."

"For both Greeks and Romans, the east-west axis had a special religious significance and reflected a specific understanding of culture," explains Christian Russenberger, an archaeologist at the University of Zurich. "It had its origins in their view of the world and civilization. The Greeks believed their culture came from the east, which was to some extent true. They thought that some of their gods, for example Dionysus, had been imported to Greece from the east, although they were actually of genuine Greek origin. For them the east was the direction where culture had arisen and developed, but also a place with a favorable climate that led to softness and decadence. By contrast, the west, with its harsh climate, was considered particularly uncivilized. Greece saw itself in the middle, in the most moderate and proper position."

#### The Heavens Have Two Gates

Although Vitruvius wrote much about easterly orientation, the principle – and indeed religion itself – was not interpreted as dogmatically as in Christian architecture, where it has always had important symbolic value. The early Christians faced east when they were baptized, whereas they faced west when making their vow to renounce all evil. The essential thing back then was that light coming from the doorway should enter the church from the east. Later, however, the altar was considered to be the more important part of the church because the ritual of the mass was celebrated there. Therefore by the eighth or ninth century at the latest, Christians had started to reorient their places of worship. The longitudinal axis now typically ran from west to east, so that the choir and the altar faced east and the main entrance faced the west. In the modern liturgy, the priest faces the congregation, but in the distant past he faced east. And even in funeral services held in churches and cemeteries,



**Modern churches, too, have an eastern orientation: Le Corbusier's Notre-Dame-du-Haut pilgrimage chapel. Set on a hill in Ronchamp, France, it is a place of pilgrimage for both religious believers and architects.**

the head of the deceased was normally to the east. Because the sun does not always come up at the same place on the horizon over the course of the year, some churches have even been oriented to reflect where the sun will rise on a particular day. For the imposing Cathedral of St. Stephen in Vienna, for example, this was December 26, 1137, which is the day of the church's patron saint in the year construction commenced.

Lothar Schmitt, an architectural historian at the Federal Institute of Technology (ETH) Zurich, believes there is deeper explanation for eastern orientation. "In medieval times churches were meant to reflect the structure of the heavens. Prophecies in both the Old and New Testament use the word 'oriens' as a name for the Messiah, who is also called 'sol iustitiae,' the sun of righteousness. Accordingly, the sun rising in the east was seen as a symbol of the resurrected Christ," explains Schmitt. "Isidore of Seville, an important author on the brink of the middle ages, wrote of heaven as having two gates, one in the east and one in the west, through which the light of the sun entered and departed. In the medieval world view, paradise was thought to lie far to the east. Because Christians were striving for paradise, they would face that direction, according to the theologian Honorius of Autun."

#### A Timeless Formula: "Soleil, Espace, Verdure"

Modern churches are still given an easterly orientation whenever possible. A famous example of this is the pilgrimage chapel in Ronchamp designed by Le Corbusier. The French-Swiss architect, who was born in 1887 in La Chaux-de-Fonds and is still considered one of the greatest modern architects, was a classic example of a "sun worshipper." Bruno Maurer, an architectural historian at the ETH Zurich, describes him as a natural philosopher. "Le Corbusier was a great believer in the power of nature. That's why the path of the sun, the sun itself and solar orientation are central to his work.

This shows up in almost all his work, as well as in his writings on architecture and urban planning," Maurer explains. "One of his most memorable, oft-quoted formulas is 'soleil, espace, verdure' (sun, space, greenery). In 1942 he even wrote that orientation toward day and night should be the yardstick for all urban development."

#### The Path of the Sun Still Influences Modern Architecture

This argument of architecture oriented toward night and day actually has its roots in the much derided 19th century. Toward the end of that century, architecture was picking up on the ideas of the hygiene movement, which aimed to combat tuberculosis and other serious diseases. Scientists had investigated the effects of the sun's rays and shown that they had a positive impact on human health. "These insights were to be incorporated in the way buildings were constructed and oriented," explains Maurer. "Therefore new ways of building emerged that were designed in line with health requirements rather than simply looking impressive or serving as a status symbol. An eastern orientation is always called for in buildings that should not be exposed to excessive sun. This is for example the case today in designing schools, where the recommended orientation is east-southeast. Or in residential housing, with new types of development such as 'zeilenbau,' where rows of housing are aligned from north to south so that people get morning or evening sun or both."

But what is the current view of easterly orientation in today's architecture? Maurer replies: "It's true that today's architecture is decisively influenced by new technological developments and standards, such as insulating glass and solar cells. Nevertheless, any intelligent architect will take into account the path of the sun when siting a building and laying out its rooms; having the bedroom face east to catch the morning sun and the loggia west to enjoy the sunset still makes sense even 2,000 years after Vitruvius." <

# When the East Discovered the West

**Did China beat Columbus in putting the New World on the map? In his controversial book, "1421", former submarine commander Gavin Menzies raises the theory that ancient Chinese explorers may have been first to find the Americas. The author explains his own extraordinary journey of discovery and why rewriting history isn't always popular.**

Text: Gavin Menzies

If someone had told me five years ago that my book "1421" would be on sale in 105 countries and that we would need a team of people to answer e-mails and letters which arrive from round the world every day, I would have said they were mad. In early 2002 I did not even have a publisher despite trying for 10 years.

It might be of interest to summarize the events which led to this extraordinary situation. Marcella and I had decided to celebrate our silver wedding anniversary in 1990 by going to Beijing. We arrived on New Year's Eve and went straight to the Great Wall at Badaling. Adrenalin surged through our blood gazing at the harsh, desolate Mongolia to the north, and the much more fertile China to the south. The Great Wall is the barrier between the two, snaking away over the hills – on that cold winter's day like a snake covered with icing sugar. In the evening we went to see the Ming tombs and then down to the Forbidden City. We were told that the Badaling section of the Great Wall, the Ming tombs and the Forbidden City had all been inaugurated by the great Emperor Zhu Di on Chinese New Year's Day 1421.

The performance in the Forbidden City that New Year's Eve was pure magic – fireworks, violet smoke in the clear cold sky, jugglers, clowns belching orange fire from their mouths, Indian dancers, dragon processions – a wonderful, stimulating evening. As it ended

we asked our guide, "Why did the emperor inaugurate all these enormous projects at the same time on New Year's Day 1421?"

Answer: "Because they took 16 years to build."

Question: "Well, why did he decide to begin all this here in the harsh north, on the edge of Mongolia? Why didn't he stay in the capital Nanjing in the fertile, warm south?"

Answer: "Because he wanted to live in the north."

Question: "But why did he need to leave the south?"

Answer: "As I said, to come to the north. There will be no further questions about this matter."

Having been silenced, I looked pained and the guide as a sop added: "The emperor sent a huge fleet of ships all round the world to bring kings and princes and emperors to Beijing for the inauguration of the Forbidden City – he had a huge fleet. His guests traveled in great comfort from their home countries to Beijing." This was an astonishing revelation as I had no idea that mediaeval China had a navy, let alone one capable of bringing people halfway round the world for the inauguration.

On our return home I decided to see what was happening at that same time in London and found February 1421 was a very important month in English history. The Hundred Years' War had brought France and England to their knees: Both were virtually bankrupt. >

采慧齋收藏



0°

**GREENWICH** The Meridian Line is an imaginary line which runs from the North Pole to the South Pole. It is known as Zero Longitude and it is the line from which all other lines of longitude are measured.

121°

**SHANGHAI** The 1418 map depicted here was purchased by Liu Gang, a Chinese lawyer and art collector, in 2001 from a Shanghai map dealer. The map, published decades before Columbus, da Gama and Magellan set sail, shows the whole world with remarkable accuracy. If the map is considered genuine, history will have to be rewritten.



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**"If I had spent my life writing about how Columbus discovered America I would have been furious if some outsider had found the chart Columbus used that showed him the way to the Americas." Gavin Menzies**

England's great warrior King, Henry V, planned to bring the Hundred Years' War to an end by unifying France and Britain. He would do this by marrying the erotic young French Princess Katherine de Valois – their child would be king or queen of both France and England, and hence there would be no rationale for continuing the Hundred Years' War as the two countries would be united.

This plan had the backing of the French king. As part of the agreement, Katherine was to be crowned queen of England in Westminster Abbey and a great feast would follow in Westminster Hall – in February 1421, virtually the same time as the Forbidden City was being inaugurated. I could therefore compare the scale and extent of the festivities in London and Beijing that same month. In Beijing, the emperor put on a 10-course banquet for 26,000 people. In London, the fare for 600 guests was salt cod, "stockfish"; because the country was poor, there were not enough plates for everyone and stale bread had to serve instead.

This seemed to have the germ of an interesting story, so I decided to research what else was happening in Europe that same month, February 1421. I rapidly found it was an extraordinarily eventful year. The holy Roman emperor was defeated by the Hussites at Kutna Hora; the Renaissance had started; Joan of Arc had her First Communion; the emperor of Byzantium was surrounded by the Ottomans; the Mamluk sultan, al Ashraf Barsbay, seized power in Cairo, capital of the Islamic world, in December 1421 and decided he would nationalize the spice trade. This brought international commerce through Egypt to a halt. By the end of 1421, the spice route through Egypt was severed as was the Silk Road through Byzantium, hence Henry the Navigator's attempts to find a new way to the east. He did so by setting up a school at Sagres in southwest Portugal to train captains of his ships and cartographers. European voyages of exploration had started.

### The Year 1421 Becomes All-Encompassing

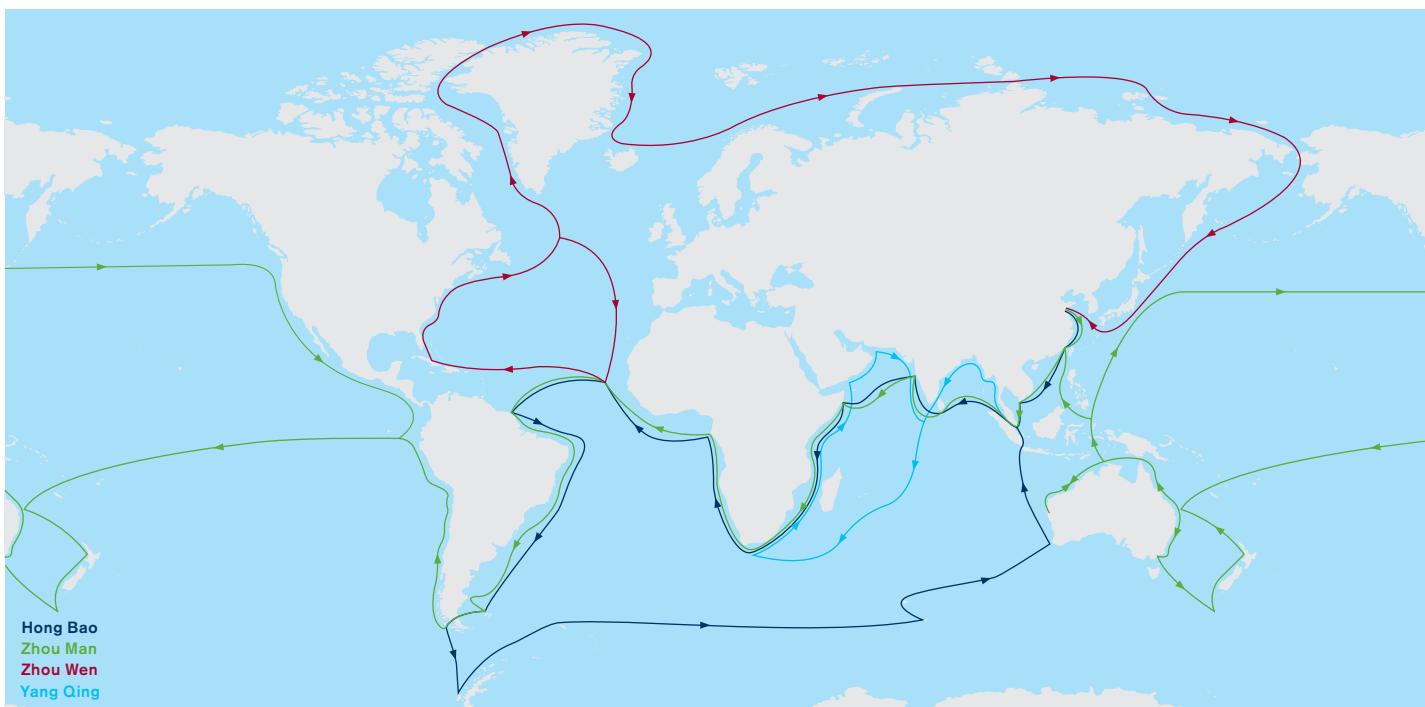
The more I got into the research, the more fascinating it became until the year 1421 came to dominate my life. After three years, I felt that there was enough interesting information to publish a book and made my first attempt in 1993. This was rejected but I continued until 1999. By Easter that year, the book was over 1,500 pages in length. As a result of this process, I came across the Pizzigano Chart published in 1424 which showed islands in the Caribbean. I contacted the curator of the James Ford Bell Library which owned this map and corresponded over several months with the curator, Emeritus Professor Carol Urness. By mid-2001 she was convinced by my analysis that the islands on the 1424 map were Puerto Rico and Guadalupe. This was an astonishing revelation, for clearly somebody must have been in the Caribbean nearly 70 years before Christopher Columbus accurately mapped the islands.

My instinctive reaction was that the map came about from a secret Portuguese voyage. I contacted the Portuguese ambassador in London who kindly introduced me to the curator of the National Record Library, the Torre do Tombo in Lisbon. On a beautiful October day I began research there to find details of this secret voyage. However, to my astonishment I found quite the opposite – not only did the Portuguese know nothing of these islands, but in the year 1431, Prince Henry the Navigator had sent caravels to find them. Even more startling, the Portuguese claimed that in the year 1428 the king of Portugal's eldest son, Dom Pedro, had visited Venice and brought back maps of the world which showed in the east a way round Africa to China and in the west, the Americas and the "dragon's tail" which today we call the Straits of Magellan. So here was an astounding claim: The whole world had appeared on charts which the Portuguese had brought back to Lisbon 70 years before Columbus had sailed on his first great voyage of exploration to the New World.

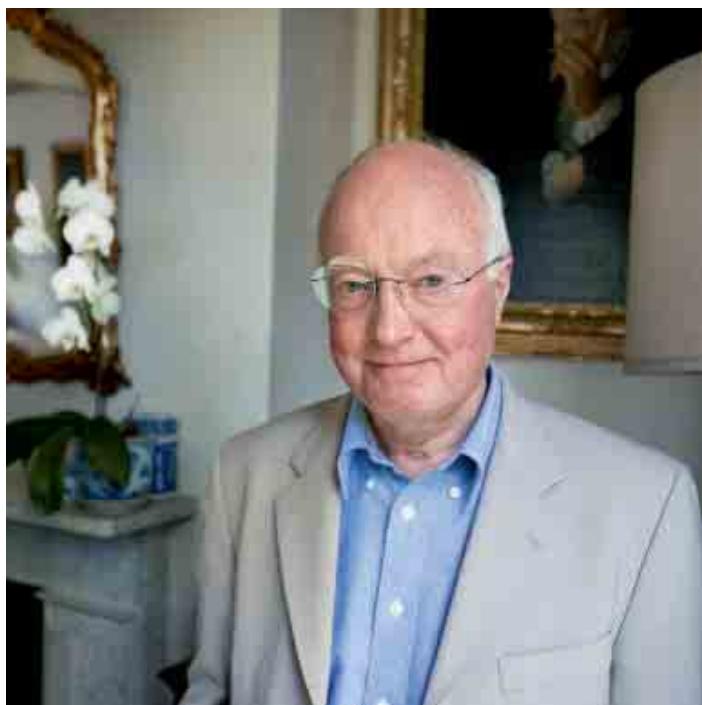
### Real or Figments of the Imagination?

These world maps were last seen in the Monastery of Coimbra in the 1520s, so it was difficult to know whether in fact they had existed or they were hearsay or figments of somebody's imagination. It seemed to me that if they were real, the kings of Portugal and Spain would have provided their caravel captains with excerpts of these maps to show them the way to the New World. So in September 2001 with feverish excitement I started to look into the records of Columbus, Magellan, da Gama, Cabral, Dias and Captain Cook to see whether they had acknowledged that they had maps showing them the way to the New World.

To my absolute amazement, within six weeks, by the end of November 2001, I had found evidence that all the great European explorers had had maps showing them the way to the New World. But whoever would believe me? I decided again to contact historians to get their views. The general reaction was that Columbus and Magellan were bluffing. They both faced mutinies and to quash these they claimed that they knew where they were because they had maps. My next step was to search for the records between Columbus and Magellan on the one hand and the kings of Spain and Portugal on the other to read correspondence before they set sail. I discovered that indeed Columbus had a map which was provided by an Italian called Paolo Toscanelli, and that before setting sail Magellan had seen a map of the world which showed the Straits of Magellan in the king of Portugal's library. By December 2001 I found sufficient charts, as described in my book, "1421", to say for certain that the whole world had been mapped before European voyages of exploration had started, although these charts were separate, not on one complete world map. By the end of 2001 >



Above: (Left) The world in 1421: Zhu Di, the third emperor of the Ming Dynasty, celebrates the completion of the Forbidden City, his majestic walled capital. (Right) Katherine of Valois, who married Henry V in 1420, was crowned queen of England in Westminster Abbey. Below: The route taken by the huge naval fleet deployed by Emperor Zhu Di in 1421 to «collect tribute from the barbarians beyond the seas.» They returned to China in 1423 after circling the globe.



**Gavin Menzies** (born 1937) joined the Royal Navy in 1953 and served in submarines from 1959 to 1970. As a junior officer he sailed the world in the wake of Columbus, Dias, Cabral and Vasco da Gama. When in command of the HMS Rorqual (1968–1970), he sailed the routes pioneered by Magellan and Captain Cook. Since leaving the Royal Navy, he has returned to China and the Far East many times, and in the course of researching "1421" he has visited 120 countries, over 900 museums and libraries and every major seaport of the late Middle Ages.

I was sure all of the great European explorers had maps. I realized I had a heavyweight book on my hands.

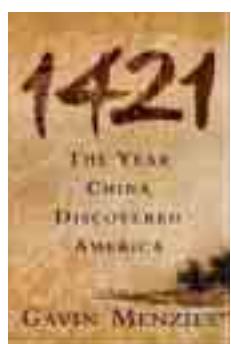
Transworld bought worldwide literary rights in March 2002 and the hardback version was published in November of that year. Transworld subsequently sold rights around the world and the book "1421 – The Year China Discovered the World" has now been translated into 30 languages.

#### Critics Fueled Book Sales

I have been asked what the reaction of historians has been; the honest answer is that I do not really know. I only read English, which accounts for a small proportion of the countries in which "1421" is on sale. There have been 22,000 mentions of criticism and praise in China alone. Long ago I gave up reading reviews. Understandably, some English-speaking historians have been very upset. If I had spent my life writing about how Columbus discovered America I would have been furious if some outsider had found the chart Columbus used that showed him the way to the Americas. Having made allowances for that, it surprises me how badly the critics have handled their opposition.

If I had been in charge of marshalling opposition to "1421" I would have taken the line "Well it's a very interesting book, but so what? The Chinese did not have the guts to sustain their overseas settlements but the Europeans did. History was not affected. '1421' is a sideshow." The critics did not take this line but instead mounted vitriolic personal attacks on me and anybody who supported me. This had two consequences: firstly, it turned off the general public who bought "1421" in cartloads to see what all the fuss was about. Secondly, many of my supporters were emeritus professors who did not take kindly to being called frauds or to allegations of being in my pocket. Some of them – who were much more distinguished than some of the critics – mounted devastating counter-attacks. So the English-speaking critics ended up looking both ignorant and incompetent.

As the Yorkshire saying goes, "There's nowt so queer as folk." <



**1421 – The Year China  
Discovered America**

Gavin Menzies

Published by Bantam Press, London

**On March 8, 1421, the largest fleet the world had ever seen set sail from China. Its mission was "to proceed all the way to the ends of the earth to collect tribute from the barbarians beyond the seas" and unite the whole world in Confucian harmony. When it returned in October 1423, the emperor had fallen, leaving China in political and economic chaos. The great ships were left to rot at their moorings and the records of their journeys were destroyed. Lost in China's long, self-imposed isolation that followed was the knowledge that Chinese ships had reached America 70 years before Columbus and had circumnavigated the globe a century before Magellan. Also concealed was how the Chinese colonized America before the Europeans and transplanted in America and other countries the principal economic crops that have fed and clothed the world.**

# Credit Suisse Business



## Kai Nargolwala Named New CEO for Asia-Pacific Region

On January 1, 2008, Kai Nargolwala will join Credit Suisse as Chief Executive Officer of the Asia-Pacific region. "I am delighted to have been given this opportunity to contribute to the further success of Credit Suisse in the region," says Nargolwala, who has three decades of industry experience in Europe, the US and Asia. Nargolwala will succeed Paul Calello, who has been heading the region since 2002 and has recently been appointed CEO of Credit Suisse's Investment Banking division based in New York.

Credit Suisse CEO Brady W. Dougan sees Nargolwala's appointment as an important step for business in Asia: "We continue to see growth opportunities in Asia-Pacific and, with Kai's appointment, we expect to build on the considerable momentum that we have already established in the region." Nargolwala has been a board member of Standard Chartered since 1999, covering the bank's mergers and acquisitions and its governance in Asia. Prior to that, he worked for Bank of America for 19 years. He is looking forward to his new role at Credit Suisse: "Together with an excellent team, I will be focused on further leveraging the bank's strong global capabilities across the franchise in Asia-Pacific." **jbo**



## Clients in Israel Gain Access to Private Banking Services

Credit Suisse is now able to offer a range of its global and local products and services to clients in Israel, including equities, bonds, mutual funds, structured products and alternative investments.

Credit Suisse Financial Services (Israel) Ltd., a wholly owned subsidiary of Credit Suisse, has recently been granted an Investment Marketing License by the Israel Securities Authority. This license enables the subsidiary to provide financial services to private banking clients in Israel.

The bank has been active in Israel for more than a decade and through that experience has gained in-depth knowledge of the local market. With the new operation, Credit Suisse is now able to meet the needs of Israeli clients, who are increasingly looking for local access to global capabilities and solutions that are tailored to their requirements.

Muli Ravina, who was appointed CEO of the new entity, will be responsible for building the bank's operations in the country. Ravina joins Credit Suisse from Ericom Software where, in his role as president and chief operating officer, he was responsible for the company's global operations. He also has more than 20 years of experience in the Israeli market. **mb**

## Kudos for Latin America Franchise From Publications

Credit Suisse's Latin America franchise was recently recognized by three of Wall Street's most highly respected publications: LatinFinance, Institutional Investor and Euromoney. In LatinFinance's Investment Banking Poll 2007, Credit Suisse won top honors in eight out of 11 categories, including Best Equity Underwriter, Best Debt Underwriter, Best Sales & Trading, Best Execution, Best Buyside Relationships, Best Long-Term Partner and Best Overall. The magazine polled 20 of the region's biggest users of the capital market and the five largest investment managers in Latin America. "We culled a range of answers, demonstrating preferences for a host of banks with national and regional specialties," noted the editors. "Credit Suisse took the prize in virtually all of the capital market categories, appearing as the bank of choice in equity underwriting, debt underwriting, sales and trading, and execution."

Institutional Investor magazine published its 2007 Latin America Research Team rankings, and Credit Suisse was noted for its strength in the region, having garnered a number two spot and with 14 of its research teams listed in the rankings. The magazine based its survey on the responses of more than 300 money managers and investment professionals at over 200 institutions that collectively manage almost 129 billion dollars in Latin American equities.

In Euromoney's Awards for Excellence 2007, Credit Suisse collected the Best Investment Bank and Best Mergers and Acquisitions (M & A) House in Latin America, as well as a number of country awards. Credit Suisse was recognized for "sustained excellence across all products." Euromoney also noted that Credit Suisse's equity business executed 23 IPOs, including landmark offerings for Santos Brasil, BrasilAgro and GP Investimentos. **sl**

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## Asia Pacific



## Middle East



## Young Managers Learn Through Interaction

The Credit Suisse integrated bank is taking off in Asia: On October 12, Eoin O'Shea, COO Asia Pacific, launched the Professional Diploma in Global Finance training program, which Credit Suisse has set up in partnership with the Chinese University of Hong Kong. Its aim is to pass on expertise from the financial industry to the next generation of Credit Suisse managers.

During the 15-month program, participants complete three modules at the university: banking in the global financial system, financial services and products, and management and leadership skills. These are complemented by a study module at Credit Suisse, on-the-job training, project management and a group project focused on a strategic issue for the region. Thirty-six employees from Singapore, Hong Kong, Japan, Australia and Korea will take part in the pilot program, in which Investment Banking, Private Banking, Asset Management and the supporting specialist areas are represented. "We are very proud to be able to offer this unique program designed to support ongoing development and differentiate us from our competitors," said Patsy Doerr, head of the Business School Asia Pacific region. "We want to encourage knowledge sharing and networking between colleagues from every area of the bank." mb

## Global Warming Index Created for Sustainable Investing

Global warming has become a recognized issue in politics and science. The consequences and prevention of it will give rise to investments in secure water supply, food production and in the development of alternative energy capacities. Taking these factors into account, Credit Suisse launched a Global Warming index, which offers the possibility to invest in renewable energy and carbon controlling stocks chosen by its equity research and HOLT teams.

The teams have identified key investment opportunities created by environmental sustainability issues, mainly in companies involved in demand management, for example, more efficient energy consumption, emissions limitation and renewable fuels. "Nearly everyone we speak with believes that global warming is a critical issue that governments are only now beginning to address," explains Andrew Garthwaite, chief Global Equity Strategist at Credit Suisse. "The debate is how best to position portfolios for this new issue. One solution is a basket of stocks that plays across the themes related to reducing carbon emissions." The index, which comprises 40 companies, is rebalanced every February and August and is calculated as a synthetic price return and total return index in dollars, Euros and Swiss francs. mb

World Future Energy Summit A Meeting of Minds

# Experts of Alternative Energy Technologies to Converge in Abu Dhabi



Text: Michèle Bodmer

**In 2008, Abu Dhabi will set the stage for the latest developments in future energy solutions with the World Future Energy Summit (WFES). This is the first international forum for this growing sector where key industry leaders will gather to discuss the issues and developments of sustainable and alternative energies and technologies.**

The WFES, running from January 21 to 23 at the Abu Dhabi Exhibition Centre, will feature a 14,000-square-meter exhibition, which is expected to attract some 10,000 visitors from around the world. The exhibition will showcase the present and future state of alternative technologies and provide visitors with the rare opportunity to speak with the people and companies behind the new products and ideas aimed at saving the planet. Credit Suisse is the principal sponsor of the WFES and also of the exhibit "Credit Suisse Innovation Zone," which will highlight technology that will become part of daily life as pressure increases to create sustainable living environments. "Credit Suisse's decision to take such a prominent profile at the WFES demonstrates the high level of interest we are getting from international investors in the projects we are developing here in Abu Dhabi," explains Sultan Ahmed Al Jaber, CEO of Masdar, which is organizing the summit.

Alongside the exhibit is a conference which will feature 150 of the world's foremost specialists of future energies, including Jonathon Porritt, the UK's leading expert on sustainable development and past advisor to former Prime Minister Tony Blair.

Other notable speakers include government ministers and representatives from energy companies including Mohammad bin Dha'en Al Hamli, minister of energy, United Arab Emirates (UAE); Vivienne Cox, group executive vice president, Gas and Power, BP; Graeme Sweeney, executive vice president, Shell International Renewables; and Dr Mohammed Saeed Al Kindi, minister of environment and water, UAE. Lord Norman Foster, designer of the Masdar City, will be the keynote speaker at the conference. He will provide insight on sustainable architecture of the future, and offer a glimpse into the world's first attempt to build a zero-car-

**The first project as a result of the Masdar Initiative is a zero-carbon and zero-waste community. Masterplanned by Foster + Partners, the initiative is driven by ADFEC.**

bon, zero-waste city. (See page 14 for the full story on the Masdar City.)

"Masdar is leading the way in the development and commercialization of advanced and innovative technologies in renewable, alternative and sustainable energies," explains Michael Philipp, CEO of Credit Suisse in Europe, the Middle East and Africa. "The conference will provide a unique opportunity to explore the future of the global energy industry, including alternative energy in the Middle East. <

**For more information on WFES visit [www.wfes08.com](http://www.wfes08.com)**

## More About the Masdar Initiative

**Last year, Abu Dhabi made a historic decision to embrace renewable and sustainable energy technologies by launching the Masdar Initiative, a project launched with the backing of the Abu Dhabi Future Energy Company (ADFEC), which has been mandated to drive Masdar, champion the adoption of advanced energy technologies, and contribute to the diversification and sustainable growth of the Abu Dhabi economy. Also in 2006, as part of the government's initiative, Credit Suisse, ADFEC and other partners launched the 250-million-dollar Masdar Clean Tech Fund ([www.masdarctf.com](http://www.masdarctf.com)), which invests in clean energy and sustainable technologies, thus contributing to the economic diversification of the Gulf region.**

Credit Suisse Finance Division Interview with Chief Financial Officer Renato Fassbind

# “It is vital always to innovate boldly and to venture into new territory”

Interview: Marcus Balogh

**The initial success of the One Bank Strategy makes it tempting to believe that Credit Suisse has already reached most of the initiative's goals. But we haven't, not by a long shot, says Renato Fassbind, Credit Suisse's Chief Financial Officer.**

**Bulletin: Can you sum up in a few sentences for Bulletin readers what your division actually does?**

Renato Fassbind: Sooner or later, all the facts and figures have to be turned into financial data. Whether the information comes from Private Banking, Investment Banking or Asset Management, it all comes together in our division. We always work on financial data from operational activity, and never produce figures for figures' sake. Essentially we create a picture of the company that is updated daily. This then serves as an information basis for our business activity. That picture is also important to financial regulators such as the Swiss Federal Banking Commission, the SEC in the US and the FSA in the United Kingdom.

**For a while now the financial markets have been subject to great volatility. How does this influence your division's work?**

Some areas of the Finance division are strongly influenced by market volatility. Take Product Control, the area responsible for validating the valuation of the bank's positions in financial instruments. These valuations must be based on the "fair value" principle. In other words: We have to value certain investments – or our assets and liabilities – at market value. When markets

are volatile, this task becomes exceptionally complex and time-consuming.

**Does market turmoil make your job more fascinating?**

It certainly can make things more hectic, but I wouldn't say it makes my job more fascinating. I highly value being able to make a very real contribution to the bank's future, as a member of its Executive Board. Another interesting feature is that all company information comes together in our division. Our division's work is interwoven with all areas of the bank, so there are very few major events that won't end up on my desk at some point for assessment. We act as a "switch point" – an information nerve center. I see the bigger picture – that's the attraction of my job.

**Your job makes you an important port of call for investors. What interests them the most?**

Investors who have major stakes in Credit Suisse want to know what strategies we're pursuing, where we stand today and where we're heading. The main issues at the moment are the integrated bank, our expansion in different regions and growth in the individual divisions. But these discussions are less about my view as CFO, and more about my role as a member of the Executive Board.

**And how significant are these issues for the Finance division?**

Strategy implementation and the bank's growth are crucial to all areas, hence also for the Finance division. One example is "client centricity." By this we mean gearing our business to the needs of our clients and not to selling individual products. It involves making the bank more responsive to client needs. And it implies that we have to improve our management information systems, among others. Here we have to look at transparent allocation of costs in the regions and countries, and for our central services. These systems are designed to help us ensure that we offer our clients the best possible service, while deploying our resources as efficiently as possible.

**What other issues are important?**

Second is the harmonization of our IT systems. We have too many systems that cannot yet communicate with one another. Cost transparency is not our only concern here. We are looking for the potential to cut costs by more efficient systems. The third issue is the ongoing improvement of our performance and remuneration measurements – how we measure the success of our staff and offer them due reward. We are standardizing some of these criteria bankwide.

**Talking of the bank's development as a whole, what are the next main steps on the way to an integrated bank?**

We have a clear strategy and have been implementing it for some 22 months now. From the start, we've always said it would



**Renato Fassbind** is a member of the Executive Board and Chairman of the Credit Suisse Foundation.

## Profile

**Renato Fassbind** is the Chief Financial Officer of the Credit Suisse Group and of Credit Suisse, based in Zurich. As CFO, Renato Fassbind and his team are responsible for developing and maintaining the finance organization, whose mission is to protect and enhance shareholder value. It does this by guarding the bank's financial franchise, delivering reliable and transparent information to stakeholders and optimizing the use of financial resources.

Photo: Katharina Lütscher

take three to five years to complete this process. So there are no major new steps: We just have to stick to the path we have mapped out.

**What's the greatest difficulty you envisage in this respect?**

Given our initial success, it would be tempting to believe that we have already reached our goal. We haven't, not by a long shot. If we are to continue transforming Credit Suisse into a globally integrated bank at the same pace, everyone, in-house and outside, has to realize that we have a long way to go to exploit our potential to the full.

**Is it possible to say what percentage of this journey is now complete?**

(Laughs) Many investors ask the same question. But this is not something that can be precisely quantified. I think you'll have to settle for the fact that we have a three-to-five-year plan and are only about 22 months into that plan. But we must keep reminding ourselves and investors that – given the dynamics of the capital markets in our industry – it's vital always to innovate boldly, to venture into new territory and to create competitive advantage for our clients and shareholders alike. So the journey has no end: we are innovative and have to develop further.

**As a bank, do we still have to grow through acquisitions, or do we have everything on board to achieve our goals?**

We already have the critical mass we need to offer our clients comprehensive solutions. So there is no need for major takeovers. That said, we will of course continue to pursue a policy of selective geographical expansion in certain regions. We attach great importance to self-generated growth, which is why we are committed to recruiting and developing talented employees – in all areas. Equally important to us on the Executive Board is the question of how to make Credit Suisse one of the most attractive employers. Our emphasis is on first-class training – ideally involving secondments to all business areas – and career opportunities around the globe. <

A Commitment to the Swiss Market

# The Best Bank in Switzerland – According to Euromoney

Text: Andreas Schiendorfer

**"Our goal is to be Switzerland's leading bank in terms of customer satisfaction and earnings growth," Ulrich Körner, CEO Credit Suisse Switzerland, told at a well-attended media lunch at the end of August. He also used the occasion to reveal some remarkable figures.**

Credit Suisse Villars, in western Switzerland, opened its doors on September 26, 2005. This did not make much of a splash outside the region, yet it was in its own way a historic event: For the first time in 12 years Credit Suisse had opened a new branch in Switzerland.

Fast-forward to 2007. The next new branch followed in the Zurich Sihlcity shopping center on March 22 of this year. Another two branches are scheduled to open in the canton of St. Gallen in the coming year: in the AFG Arena, a sports stadium in St. Gallen, early in 2008, and in the new

shopping center development in Heerbrugg in the same canton in the fall.

#### Thirty Percent of Group Net Income

Parallel to this expansion, in the past three years some 30 branches have undergone customer-friendly refurbishment – featuring a uniform interior design as part of the "Branch Excellence" project. The project was launched in Bülach, Zurich, in 2005. The most recent branches to be modernized and upgraded include Vésenaz, Carouge, Martigny, Lucerne, Basel and the Swiss capital of Berne.

Even more significant than these external, visible signs of revitalization has been the internal change in Credit Suisse since the beginning of 2006: Under the motto "One Bank" or "integrated bank," Credit Suisse developed an overall strategy for the Swiss market embracing all divisions and segments, and moved swiftly to optimize cooperation between the bank's units.

Another objective was to ensure that Credit Suisse Switzerland benefited better from the bank's global opportunities. In concrete terms, Credit Suisse would like to expand its strong market position in Switzerland, while at the same time increasing its focus on the promising growth markets in Asia and Eastern Europe.

Ulrich Körner, CEO Credit Suisse Switzerland, announced a positive verdict: "20 months after the launch of the integrated



Ulrich Körner, CEO of Credit Suisse Switzerland, whose office is at the Paradeplatz in Zurich (pictured above), believes the region has benefited from the bank's global opportunities.





**Credit Suisse is making its branches more customer-friendly. The refurbished branch in Zermatt, the Matterhorn city, is shown here.**

business model, Switzerland is one of the major pillars of the integrated bank," and provided a range of interesting facts and background information for the strong showing of media representatives. He emphasized that the Swiss market, with a payroll of some 20,000, still contributes about 30 percent of the bank's net income. Credit Suisse also offers a total of 1,150 traineeships for apprentices and graduates of secondary schools and colleges.

## 2.1 Billion Francs in Purchases

No fewer than 15,000 providers, most of them SMEs, benefit directly from the purchases of Credit Suisse, which spends 2.1 billion Swiss francs a year in Switzerland alone on goods, services and licenses. Taxes are also an important consideration: "Credit Suisse and its employees pay 1.4 billion Swiss francs in corporate and income taxes in Switzerland annually," comments Körner. "This does not include individual wealth taxes and indirect taxes." In other words, Credit Suisse alone accounts for over 2 percent of Switzerland's total tax revenues, and the financial sector as a whole as much as 10 percent.

Turning to the bank's strong position in Switzerland, Körner pointed out that in the Swiss market Credit Suisse is the undisputed market leader in investment banking,

is number two in asset management and private banking, as well as among corporate clients, and number three among private clients. At the same time, he confirmed Credit Suisse's ambitious goals in Switzerland. These go well beyond purely quantitative targets: "We want to be the leading bank in terms of customer satisfaction and earnings growth. Our activities reflect the following three core values. The client's needs are always at the center of our efforts. Teamwork is the basis of our business. A solid reputation is crucial."

## Customer Satisfaction Continues

Credit Suisse seeks to enhance customer satisfaction by optimizing the structure of its consulting processes so as to focus consistently on the different phases in each client's life. Internal analyses indicate that this strategy has already resulted in some remarkable successes.

Various awards, in which clients' opinions played a decisive role, confirm that Credit Suisse is on the right path. For instance, the UK journal Euromoney rated Credit Suisse as the "Best Bank in Switzerland 2007" and, repeating earlier accolades, once again named it the Best Private Bank and Best Investment Bank in Switzerland; Credit Suisse also received similar awards for various other countries and regions, such as Best Investment Bank in North America and in Latin America. At the same time, Global Finance Magazine, a US publication, views Credit Suisse's corporate banking as exemplary: In New York in October, Credit Suisse was voted the "Best Trade Finance Bank in Switzerland" for the seventh year in a row. <

## Credit Suisse Switzerland Facts

- > The region generates about 30 percent of the bank's net income.
- > It has more than 20,000 employees.
- > It offers 1,150 traineeships for apprentices and graduates of secondary schools and colleges.



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## Useful to Know Financial Market Jargon

### Dow Jones Sustainability World Index

#### The Equity Index for an Enduring World

In addition to traditional financial criteria, investors wishing to fulfill their environmental and social responsibilities also take account of sustainability criteria. A number of specialized rating agencies and index houses publish information to facilitate their decisions. To take account of this investor segment, the Dow Jones Sustainability World Index (DJSI) was launched in 1999. This index tracks the financial performance of more than 300 globally selected companies that rank in the top 10 percent of their industry sector with respect to sustainable principles. The index evaluates environmental, social and economic aspects such as resource and risk management, strategic planning and innovative strength with respect to the development of new products and services. In addition to the DJSI, the Dow Jones STOXX Sustainability Index and the FTSE4Good Index represent other leading sustainability indices that also include the registered stock of Credit Suisse Group. rg

### Equity Capital

#### Net Assets of a Company

Hoarding capital and counting sheep – does any connection between the two lie in the dream world, or is there an etymological link? Certainly the pairing is not an altogether wild one, as the word "capital" originally comes from the Latin "caput," meaning head among other things. According to one theory, "capital" was originally measured according to the number of heads in a herd of cattle.

Today the term equity capital refers to the financial assets made available to a company by its owners for an unlimited period of time. Equity capital is transferred to a company from outside by means of a capital increase through deposits. From within it is generated if a company does not distribute profits. In business accounting, equity capital appears on the liabilities side of the balance sheet, representing the difference between assets and other liabilities. When aggregated with its counterpart, debt capital, it constitutes total assets. If the total assets of a company amount to 10 sheep, so to speak, and the debt capital is equivalent to four sheep, then the equity capital totals six sheep. However, this accountancy example would probably rank among the less sophisticated rituals used by insomniacs. rg

### Chart Analysis

#### Instrument Used in Financial Analysis

Chart analysis is one possible way of evaluating securities – particularly stocks – and arriving at forecasts for price development. The technique aims to identify the most favorable point at which to buy or sell a stock. In contrast to fundamental analysis, which looks at company-specific factors above all and takes into account overall economic data, chart analysis looks exclusively at charts – in other words, the graphic representation of historical price and turnover development. Chart analysts attempt to identify specific price trends as they take the view that these recur on a regular basis, throwing up symmetrical patterns that allow the corresponding price forecasts to be made. It should be pointed out that the theoretical relevance of technical analysis – as chart analysis is also known – has neither been conclusively proven nor refuted. Simply by virtue of the fact that many investors attach great importance to this process, however, it has come to influence the way prices move in practice. rg

# Credit Suisse Commitment



## Credit Suisse Opens 20th School in China

Since 1999, Credit Suisse has helped improve educational opportunities for children in remote areas of rural China. Working with humanitarian organizations including Oxfam Hong Kong, the Hong Kong Christian Council and Caritas Hong Kong, Credit Suisse has been active in the construction or renovation of primary schools. As a result, more than 5,500 pupils in the Chinese provinces of Hebei, Shaanxi, Guangxi, Kunming, Guizhou, Xinjiang, Hunan and Jiangxi have benefitted from new or improved school facilities.

Credit Suisse recently opened its 20th school in China. Patrick Kerrigan, regional Credit Suisse head of Human Resources and a member of the Asia Pacific Philanthropic Committee, visited the school together with Tom Grimmer, an advisor to Credit Suisse on China philanthropic projects. The two traveled to the village of Shidian, located in Baoshan Country of Kunming province, in southwest China.

Seeing the new school proved to be a moving experience for Kerrigan. "We were delighted to see how many children can be provided with an education with relatively little money," he said of the trip. "And we were deeply touched by the hospitality shown to us by everyone and how they, despite dealing with great poverty, shared everything with us." *mar*



## Kids Day at Credit Suisse Opens New Horizons for Youngsters

On November 8, 2007, the daughters and sons of Credit Suisse employees will have the chance to learn firsthand just what their mothers and fathers do at work. The children, aged between 10 and 16, will have the opportunity to accompany their parents to work to see what they do, and also gain valuable insight into what the modern office looks like and how it operates.

The Credit Suisse Kids Day, which is open to girls and boys, is organized as a part of the Swiss National Daughters' Day initiative which aims to arouse girls' curiosity in a wide range of professions. This is a project led by the equality specialist units in various cantons, and is supported by the Swiss Federal Office for Professional Education and Technology (BBT) and the Swiss Conference of Gender Equality Delegates. Based on ongoing inequalities in perceived and actual career prospects in Switzerland, the Daughters' Day initiative was launched to encourage girls to dispel the preconceptions that exist with regard to career choices, and to develop career ideas early on. As Credit Suisse promotes equal opportunities for both sexes, it has opened the day to girls and boys for the third year. Kid's Day is designed to inspire discussion about the career ideas that young people have, and encourages them to look more closely at their roles in society. This year, participants can try out the online "security4kids" computer program sponsored by Credit Suisse. This program points out the potential dangers of the Internet. *mb*

Museum of Fine Arts Bern Contemporary Indian Art Exhibit

# India's Wonderland of Contemporary Art at the Museum of Fine Arts Bern

Text: Patti M. Marxsen, Culture Journalist

**"Horn Please"** is a familiar saying to anyone threading through midday traffic in India's big cities. With courtesy and insistence, it invites a "honk" if you wish to avoid collision. "**Horn Please: Narratives in Contemporary Indian Art**" is another invitation. With it, the museum explores Indian identity in a global society.

If the chaos, risk and opportunity of globalization can be understood through the lens of any one nation, surely that nation is India. With a population of over 1 billion, six major religions, 22 officially recognized languages (in addition to English and Hindi), and the third-largest economy in the world, India is a kaleidoscope in motion. Or, as Bernard Fibicher might say, India is a world of multiple narratives evolving out of a culture in which storytelling has always been essential to understanding and self-understanding. Fibicher, with cocurator Suman Gopinath, is the force behind the museum's autumn blockbuster, "**Horn Please: Narratives in Contemporary Indian Art**."

It is an ambitious exhibition with images of colliding cars and cultures as central metaphors. It charges ahead from gallery to gallery, as overloaded trucks must accelerate to get through crowded intersections. If it falls short, it is only in the effort to define "Indianness." For if the 32 artists included in this exhibit are to be believed, "Indianness" is "everythingness," including the magical past of oral tradition and the often barren landscape of the present. More important is the curators' implied suggestion that contemporary artists are in a unique position to articulate the meaning(s)

that matter(s) to tell the stories that must be seen and heard.

#### In the Eyes of the Beholder

Like voices emerging out of a crowd, the art itself runs the gamut from decorative to documentary, from humorous to enigmatic, from overpopulated street scenes to contemplative rooms. It is no surprise that an edge of social and political criticism is woven into exaggerated images of consumerism, such as the plastic face of an American Barbie doll overlaid with an Indian woman's face. Verbal and visual quotes from European art appear too, such as lines of Paul Eluard's poetry or the signature of Albrecht Dürer. There are theatrical installations and mountains invented with hallucinogenic energy as well as realistic photography whose beauty lies in the unmasking of what was once beautiful, but is no more.

Insofar as each artist narrates some version of India's truth, the meaning of the work is not always easy to read. Nor is that the intention. "By emphasizing the narrative quality of this art, we're suggesting that the viewer's task is the work of interpretation," says Fibicher. In his view, narrative art is essentially "unfinished" and calls on the

viewer to engage as an active participant "within the context of his or her own narrative cosmos."

In an effort to help viewers navigate the territory, four formal divisions were selected: Narrating Collisions, Reimagining Place for People, Retelling Stories/Telling Metaphor, and Living in Alicetime. Unfortunately, these divisions tend to be swallowed by the variety of objects and the distinctiveness of individual artists. In the Museum of Fine Arts' effort to avoid a "traffic jam" of styles, themes and approaches, a more effective strategy is the organization of individual artists into separate galleries. Each gallery allocates space to one artist, and viewers are thus free to move at their own pace.

Vasudha Thozhur's autobiographical work entitled "**Four Ways of Reconstructing Pain or Reconstructing Cybermaps for the Old Economy**" consists of collages made of reassembled digital images from her paintings, writings and readings of newspapers. Crafted into four richly colored panels resembling Tibetan carpets, she juxtaposes this visual world with listening posts, complete with headsets, CDs and Plexiglas chairs where her voice can be heard reading from her diaries. "I'm looking for a form of communication where all the senses are used," she says.

Elsewhere, Dayanita Singh's black-and-white photo essay entitled "**Go Away Closer**" creates a quiet elegance with small images of primarily uninhabited spaces. In



Top left: "Fishermen in Goa," 1985, by Bhupen Khakhar. Bottom left: "Looking for Layla," 2006–2007, from the Mappmundi Suite. Right: "Firdaus V," 2007, by Nilima Sheikh.

these pictures, Fibicher notes, "All narrative is suspended." Related to the pleasing emptiness of Singh's photographs, at least in spirit, are the paintings of Sudhir Patwardhan in which one or two people – usually older people – share the solitude of small rooms with a few carefully selected objects. In these pictures, the eye travels to the ever-present open windows that emphasize the inside/outside nature of the artist's perspective. There is something flat in the color and the mood, a question posed that remains deliberately unanswered.

Equally evocative is Ranbir Kaleka's "Crossings: Two Stories," a complex video project encompassing four channels of synchronized video projected onto painted panels/screens. Figures sit together, one rises, another turns to speak. Something is happening, or perhaps they are waiting for

something to happen. There is a documentary quality to this convergence of "stories," but it is up to the viewer to imagine the relationships depicted and the meaning of their movements, just as one might sit in a café and watch two people talking, wondering what has brought them together.

#### Finding Beauty in Bitter Reality

No such poetic leisure is allowed by Ravi Agarwal's intentional documentation of how development has destroyed the Ramuna River in his photos here entitled "Alien Waters 2004–2007." Nilima Sheikh also extracts beauty from horror with her wall-size scrolls called Firdaus (meaning Paradise) that incorporate delicate stenciling over fields of red and gold paint. Her work is about the troubled history of Kashmir where she grew up, thus it is about memory and

history. One of her paintings incorporates a powerful prose poem about the Indian Army's indifference to the suffering in Kashmir. This is as much a document as a work of art, as ancient scrolls often were.

The influences of western art – from romanticism and realism to Dada – are evident throughout the exhibit. In the hands of Indian artists, these movements are reinvented into something decidedly non-western. For example, Jyothi Basu's magical mountains echo the scale of 19th-century European landscape painting as well as elements of outsider art. They also evoke the ancient tradition of miniature painting. The result is a place described as "intergalactic and subatomic" by art dealer Peter Nagy. Nalini Malani's reverse paintings on glass take up the ever so British "Alice in Wonderland" motif suggested by "Alice Time," one of the organizational frameworks for the show. Her "Balancing Act III" shows a young girl getting steady on her feet, surrounded by friendly but strange birds and monsters. If there is a thread of continuity in this exhibit, it is well represented by this image of a young girl, a symbolic young India, finding her balance in a world of colorful surprises and peculiar dislocations.

There are many things to celebrate in this exhibit, starting with the sheer exuberance of the work and the inclusion of many women artists. Also, for the Museum of Fine Arts Bern, "Horn Please" stakes out important territory – with the 2005 exhibit "Mahjong: Contemporary Chinese Art from the Sigg Collection" – as an international museum committed to exploring contemporary work from non-western cultures. With this exciting show now open on the Hodlerstrasse in Bern, new stories are waiting to be told. <

#### Horn Please:

Narratives in Contemporary Indian Art  
September 21, 2007–January 6, 2008  
Museum of Fine Arts Bern, Switzerland  
[info@kunstmuseumbern.ch](mailto:info@kunstmuseumbern.ch)  
[www.kunstmuseumbern.ch](http://www.kunstmuseumbern.ch)

Employee Volunteering Bella Berns' Story

# Enduro Challenge 2007: Credit Suisse Team and Whizz-Kids Charity Come Out on Top

Text: Michèle Bodmer

**When Bella Berns signed on at Credit Suisse EMEA as head of philanthropy, she expected to work with charity groups and coordinate employee volunteering efforts. What she hadn't anticipated, just six months after starting, was that she'd be committing not only her brains but also her brawn to the job.**

While Bella Berns was still adjusting to her new role, building a team and generally figuring out what it means to be head of philanthropy for Credit Suisse Europe, Middle East and Africa (EMEA), a team of her fellow employees from other departments had their eyes on the fit American.

This group of five had been training for six months in preparation for the third annual Enduro Challenge, an arduous triathlon relay race contested across land and water between London and Paris. To compete, a team must have six people, and just six weeks before the challenge, one team member had been forced to drop out. Having discovered that Berns had competed in an ironman in 2002 and was an avid swimmer, they set their sights on her as a replacement. As head of philanthropy, she was hard-pressed to turn down the offer to help the team reach their objective of not only competing but also realizing their true goal of raising money for the firm's charity of the year, Whizz-Kidz.

An added bonus of the challenge was the tradition of taking on the strong competition from four global rivals: Barclays Capital, Deutsche Bank, Morgan Stanley and UBS. The inaugural Enduro Challenge took

place in 2005 between Credit Suisse and Morgan Stanley. Barclays Capital and Deutsche Bank joined in 2006, and UBS came on board in 2007. In the first two years, the Credit Suisse team took first place, and were dreaming of a third win. "When the guys asked me to join, they explained that I would be taking the place of a former Olympic swimmer," explains Berns gesticulating wildly. "I thought they were crazy for asking me to replace her! Generally, they are very selective about who can join, and were obviously desperate."

## The Team Drives a Hard Bargain

Most likely the team just had a good sense for spotting athletes, and they knew that Berns' energetic personality would be an asset. She was won over by the initiative the team had shown up to that point. "I was impressed with the guys, not just for their athleticism, but for the way they put their hearts and souls into raising funds for the charity. The motivation behind this event wasn't conceived by someone like me, who is paid to come up with fund-raising events like this, but by a group with the determination to make a difference," she says. "So, of course, I agreed to be part of the team."

Having said yes, Berns immediately began honing her swimming, running and cycling skills with the help of team captains and risk managers Matthew Eckford and Keith Garbutt. Three times a week, they started their days with early morning swim practice, followed by lunchtime spinning sessions (group cycling). To balance those disciplines, they ran twice a week, much to Berns' chagrin. "I'm not a good runner, so this was the hardest part for me," she says. Two weeks into training she was joined by another last-minute recruit, risk manager Steve Munday, who replaced another injured member of the team. And, just six days before the race, Keith Garbutt dropped out due to an injury and equities analyst Will Forbes stepped in. The six-person team, which also included regional manager Paul Annegarn and risk officer Steve Lydell, did their "real" training on the weekends, with long bike rides and runs, and a couple of trips to Dover to test the cold waters of the English Channel.

Beautiful weather greeted the teams on Sunday, August 26, as they met at quiet Cabot Square, London, for the start of the race, which was an 87-mile (140 km) run to the Dover coast. "We each would have to run two 12-kilometer segments to get to Dover. I was promised the two flattest routes, but in hindsight, I think the guys were just trying to keep me from worrying," says Berns of the part she most dreaded. "Despite giving their all, the Credit Suisse team still came in 30 minutes behind Deutsche Bank



Will Bella Berns, head of philanthropy for Credit Suisse EMEA, take on the Enduro Challenge again in 2008? "I'd consider it," she says laughing. "But I'd rather spend the next six months looking for stronger athletes to take my place." She dreams of expanding the event to include Credit Suisse employees from around the world. With her enthusiasm, anything is possible.

### Fund-Raising Can Help Dreams Become Reality

Since its inception in 2005, the Enduro Challenge has raised almost 815,000 dollars for charities across London. While the funds raised this year are still being counted, together the five participating banks have already raised almost 560,000 dollars. Five charities will benefit from the proceeds of the 2007 Enduro Challenge, namely Dreams Come True, Whizz-Kidz, SPARKS, Great Ormond Street Hospital Children's Charity and the Bridge Academy, Hackney. Whizz-Kidz, Credit Suisse's charity of the year, provides disabled children with customized mobility equipment and advice to help them lead a more independent life. For more information visit [www.whizz-kidz.org.uk](http://www.whizz-kidz.org.uk)

and 25 minutes behind Morgan Stanley. "We were expecting this and knew we could catch up with Deutsche on the swim as they didn't have strong swimmers, but we were worried about Morgan Stanley's team."

The tidal conditions that evening made it impossible to begin the swim, so the teams slept off their aches and pains. Comfortable beds were ready for them when they got to Dover, thanks to lead organizer Keith Garbutt, the navigators and drivers Grahame Murray and Chad Rogerson, and reserve team members Adrian Carr and Warren Evans. "Keith was a great team manager dealing with the logistics, nutrition and transportation," says Berns.

The sun again greeted the crew for the 29-mile (47 km) swim to Calais. "When you swim the Channel, you are not only dealing with the cold but also with ship traffic and floating debris. Actually, it was pretty clean and the skipper took good care of us, but I think I should make this sound a bit more scary so it's more impressive," says Berns laughing. "Seriously, it was amazing to see the five skippers taking different routes based on their own science. So, the whole swim was a mixture of science, training and athleticism." The Credit Suisse team was first to reach Calais, completing the swim in a record 10 hours and 17 minutes.

Once all of the teams had landed in Calais on Monday night, they began the 180-mile (290 km) cycle leg. "We were cold and tired, but luckily we had great navigators telling us where to go in the dark. We were also feeling the pressure of holding off Morgan Stanley, knowing our lead was slim," says Berns. "But I knew we were gaining when I heard Matt over my headset say, 'Bella, you are flying, keep it up.'"

The team had gained a 23-minute lead over Morgan Stanley as a result of their strong swimming and cycling legs, and again won first place. Although the competition was fierce, all five teams came together in Paris to celebrate with champagne and dinner. "It was an amazing experience that instills pride in oneself, in the company that supported us and in my teammates." <

Credit Suisse Russia Equestrian Sport Sponsorship

# Russian Polo Gains Footing in Moscow

Text: Michèle Bodmer



**Polo, known as the sport of kings, has enjoyed greater reach thanks to increasing levels of commercial sponsorship and promotion. Credit Suisse supports the sport internationally, most recently with a championship tournament in Moscow.**

At the end of August, the Moscow Polo Club hosted the Russian Open Polo Championship sponsored by Credit Suisse. Michael Vlahovic, head of Russia, Eastern Europe and Central Asia for Credit Suisse, believes that the bank and polo have much in common. "Polo combines speed, trust and teamwork. It is a sport that requires great responsibility and commitment," he says. "These are all values we share and seek to deliver to our clients." Credit Suisse also supports the renowned Royal Windsor Cup in the UK.

The Russian Open Polo Championship was created in 2006, thanks to the club's president and polo player Alexis Rodzianko, who is head of Private Banking for Credit Suisse in Russia. "My goal is to promote the sport in Russia and the former Soviet Union," he says. To achieve this, the club trains boys and girls with or without prior horse-riding experience to breathe new life into the game, which prior to 2003 hadn't been played for 86 years. Polo was originally introduced to Russia in 1870 during the rule of Tsar Alexander II and had gained popularity among the ranks of the Russian military aristocracy by the reign of Alexander III. Members of the Russian imperial family either actively played the sport, or

were avid observers. After the October Revolution in 1917, the game was abruptly discontinued, along with most other so-called aristocratic indulgences. In the summer of 2003, the first chukka was staged, firmly reintroducing polo in Russia, thanks to Peruvian financier Victor Huaco. This also marked the inauguration of the Moscow Polo Club.

## Polo Slowly Regains Its Popularity

Despite the long sojourn, the love of polo has been reestablished in the hearts of Muscovites. "Polo gets a lot of attention in the media in Russia, but the participation still isn't where we would like it to be," says Rodzianko. "Events like this are important in attracting attention to the sport and to the players." Tournaments like this one, which bring together some of the world's best players, attract high society and – as a result of corporate sponsoring – leaders in politics and business.

This year's championship also brought together some of Russia's and the world's top polo players, including Hernan and Alejandro Traverso, Hawk Sunshine, Victor Huaco, Michael Rodzianko, Sergei Riabokobylko, Diego Cavanagh and Yevgeny Ovcharov. Special guest, Major Jamie Hay-

ward – who is a member of the prestigious British Guards Polo Club – refereed.

The Russian Open Polo Championship marks the end of the summer and the end of the playing season. This is a point when both players and horses are in top form, which makes for a good show, considering this 2,600-year-old sport is one of the fastest and roughest played today. Another unique aspect is that no matter how great a player's skill might be it is the performance of the pony that can make or break a match. In this tournament, the grey mare Paloma was named the best pony. The best player, who was not riding the winning pony, was Diego Cavanagh, the Argentinean professional playing for Land Rover. Adding to the excitement of this championship was the fact that two rival clubs competed in the deciding match: the Russia Polo Club and the Moscow Polo Club. "This was a hotly contested and exciting game, which Land Rover – the team representing the Russia Polo Club – won 6 to 4," says Rodzianko. "They scored three goals in the last chukka, surprising everyone." The winning team brings home the title Champion of Russia and will be invited to compete in the June 2008 Ivan the Terrible Tournament organized by the British Guards Polo Club. <

# 20 Years of Credit Suisse Involvement in Golf



Text: Andreas Schiendorfer

Golf plays a central part in Credit Suisse's sports sponsorship program. In fact, it has a 20-year-history which began in Crans-Montana. This year, from September 6 to 9, the PGA European Tour made a scheduled stop to compete in what is known as Switzerland's most prestigious golf tournament.

Crans-Montana, with its stunning alpine backdrop, is one of Switzerland's most popular holiday destinations. Since 1923 this exceptional location has also benefited the European Masters, which year after year attracts some of the world's top golfers. However, the scenic course, which is 1,450 meters above sea level and was designed by Severiano Ballesteros, is known to be tricky.

Many stars have failed to shine here. In 2007, for example, the course claimed a couple of new victims in New Zealander Michael Campbell, who won the US Open in 2005, and the up-and-coming Argentinian star Andrés Romero. After an extremely exciting competition, the Australian Brett Rumford beat England's Philipp Archer in a play-off finish, while the defending champion, Welsh hope Bradley Dredge, came in third just one stroke behind them.

## A Hole in One Worth a Kilo of Gold

The young Italian professional Alessandro Tadini also caused quite a stir on his second round by hitting a hole in one, an event that normally happens only every other year at Crans-Montana. Since he performed this feat at the especially difficult third hole, he was awarded the special Credit Suisse

prize of a kilogram of gold. The last time that this had been achieved was in 1999 by the Australian Wayne Riley.

## A History of Golf Sponsorship

The tournament in Crans-Montana has been supported by Credit Suisse as the main sponsor for the past 20 years. This is where Credit Suisse began its systematic involvement in golf sponsorship in 1987. Now the bank supports Switzerland's major men's tournaments, two of which deserve special mention: the PGA Seniors Open in Bad Ragaz and the Credit Suisse Challenge, which is held near Solothurn.

Italian golf star Costantino Rocca took part in the Bad Ragaz tournament this year. His score, of 10 under par, certainly didn't disappoint his numerous fans. Nevertheless, despite this excellent score he "only" shared second place with Argentinian Horacio Carbonetti and England's David J. Russell. England's Carl Mason played for all he was worth and took first place with a full six strokes clear. Last year, he came a close second to the Argentinian Eduardo Romero.

At the Wylihof Golf Club in Luterbach it was former Ryder Cup player Peter Baker who won. The Englishman came in just

The Severiano Ballesteros golf course in Crans-Montana is 1,450 meters above sea level and is known for its trickiness.

ahead of Scotland's Andrew McArthur, fellow Englishman Robert Dinwiddie and Spaniard Carlos Del Moral.

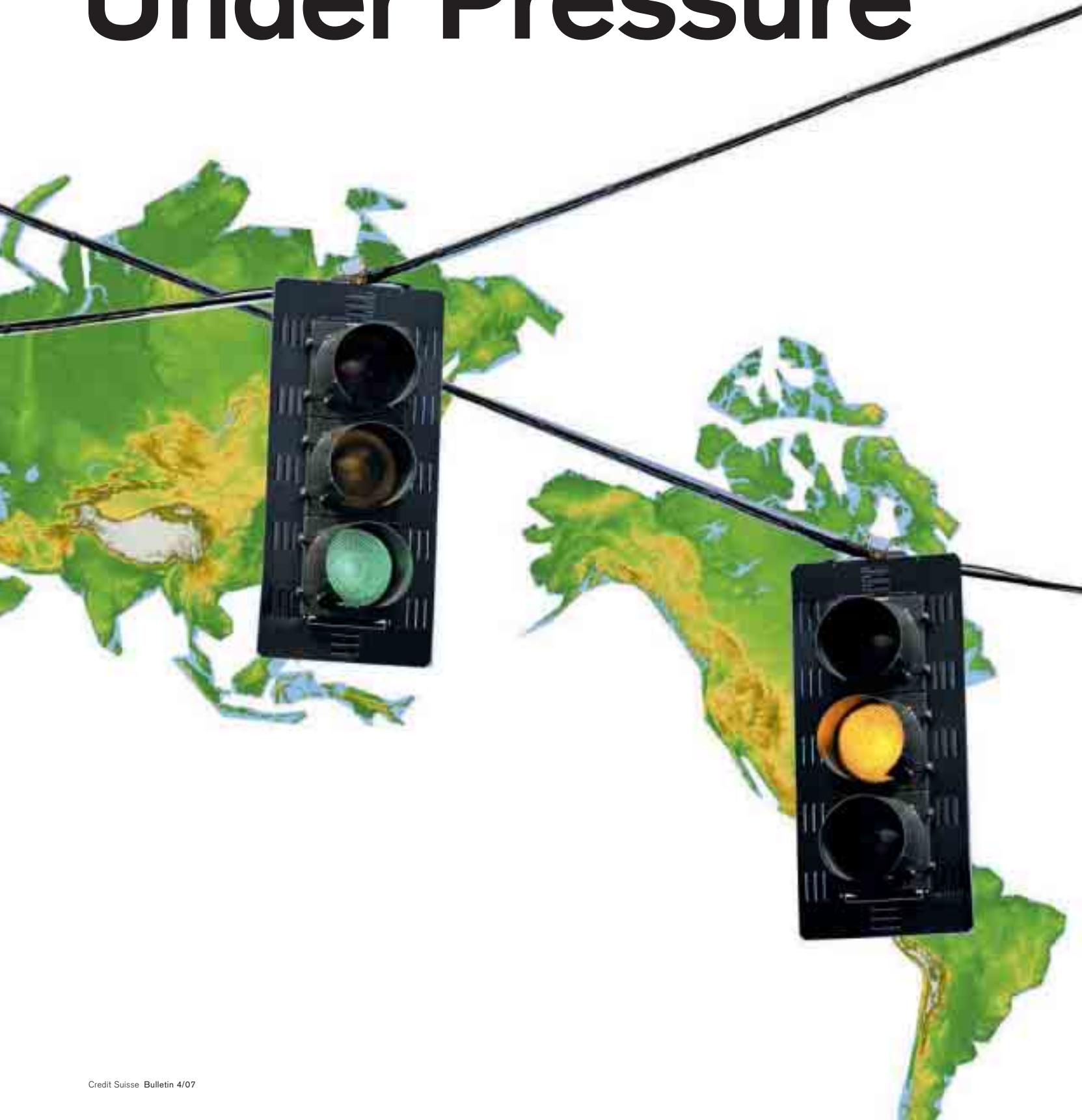
And what about the Swiss? They've been struggling for years to make it into golf's top flight. In terms of their rankings the situation is as follows: 14th (Julien Clément), 20th (Martin Rominger) and 32nd (Nicolas Sulzer) at the Credit Suisse Challenge; 48th (Julien Clément) at the Omega European Masters; and 70th (Helmut Schumacher) in Bad Ragaz.

## Supporting the Next Golfing Generation

Credit Suisse places particular emphasis on developing young talent with the hope that this situation will change for the better. It is working on a number of projects together with the Swiss Golf Foundation and also supports the Sports Academy in Davos, where talented young golfers can complete their high school education.

Since 1992 Credit Suisse has supported the Swiss Golf Foundation as main sponsor or partner. It has also supported the Association Suisse de Golf since 1999 and the Swiss Professional Golfers Association (Swiss PGA) since 2005. This enables it not only to organize Pro-Am events but also so-called golf clinics. <

# The World Economy Is Under Pressure



**When tectonic plates shift in opposite directions, they can trigger an earthquake. Something similar now seems to be happening in the world economy, as Asian growth surges and US housing declines. This volatility is likely to continue, but it's not without benefits for investors who make the most of new opportunities.**

Text: Giles Keating, head of Global Research for Credit Suisse Private Banking

The pressure has been building for several years, with the boom in China spreading to India and many smaller Asian nations, while the US housing market has looked increasingly stretched. This August and September, a break point was reached. Earlier problems in the US sub-prime mortgage market spilled into a much broader dislocation across credit markets. Strong Asian demand sent many commodity prices soaring. And, the dollar moved sharply down as investors focussed on the growth differentials.

#### Central Banks Are Put in Tight Spot

These sharp movements create real dilemmas for the Fed and other central banks, who must balance the inflation risks emanating from Asia against the adverse impact on growth from the slowdown in US housing. At one extreme, the Fed has cut interest rates. At the other extreme, Switzerland and some other smaller developed nations, as well as China, have raised rates. There is still considerable uncertainty about whether these policy-makers will be able to adjust their instruments in the right way to stabilize the world economy, and markets are likely to remain volatile while this heightened uncertainty persists. But there are some tentative signs of how the global picture may look, as the aftershocks subside.

First, it looks as though robust Asian growth will continue, affected only mildly by the slowdown in the US. China needs to slow a little for its own reasons, to counter excess investment and high food price inflation. This is likely to mean that growth falls from almost 12 percent to about 10 percent, a rate that would still be the highest in the world.

Second, the Asian boom seems to be spreading to a much wider geographic region, as the scramble for energy and raw materials starts to stimulate economies from Brazil through to Russia, the Gulf and Africa. Many of the countries benefiting from this are taking a powerful long-term view, using the revenues from the resource boom to finance diversification of their economies. Perhaps the most obvious example is Dubai, which has built a world-class city, port, financial sector and medical facility with its oil revenues. Other Gulf nations are following, as is Russia where President Putin has announced world-scale infrastructure and industrial developments. Brazil is going the same way but more slowly, while most African nations are at a far earlier stage of trying to efficiently exploit their resource riches.

Third, the US trade deficit, which has persisted for so long that it seemed to have become a fixture in the world economy, is now falling and looks as though it can decline much further over the next one to two years. This reflects very simple macroeconomics. Weakness in housing is depressing US domestic demand, which sharply reduces import growth. Meanwhile, the strength of demand in Asia and the other regions mentioned above is boosting US export growth well into double-digits. On top of this, the dollar, even before the recent decline, was low enough to make much of US industry competitive against its global peers, and deep structural cost problems like those in the auto industry are being addressed.

The decline in the US external deficit might be expected to help support the dollar. But it comes at a time when another force,

perhaps more important, points the other way. America is no longer the default destination for global savings. In the past, when oil prices rose, energy exporters like Saudi Arabia and Russia would have excess savings which they tended to recycle back into the US bond market. The same applied to the massive capital account surpluses of countries across Asia from China and India through to Japan. Now, that is changing.

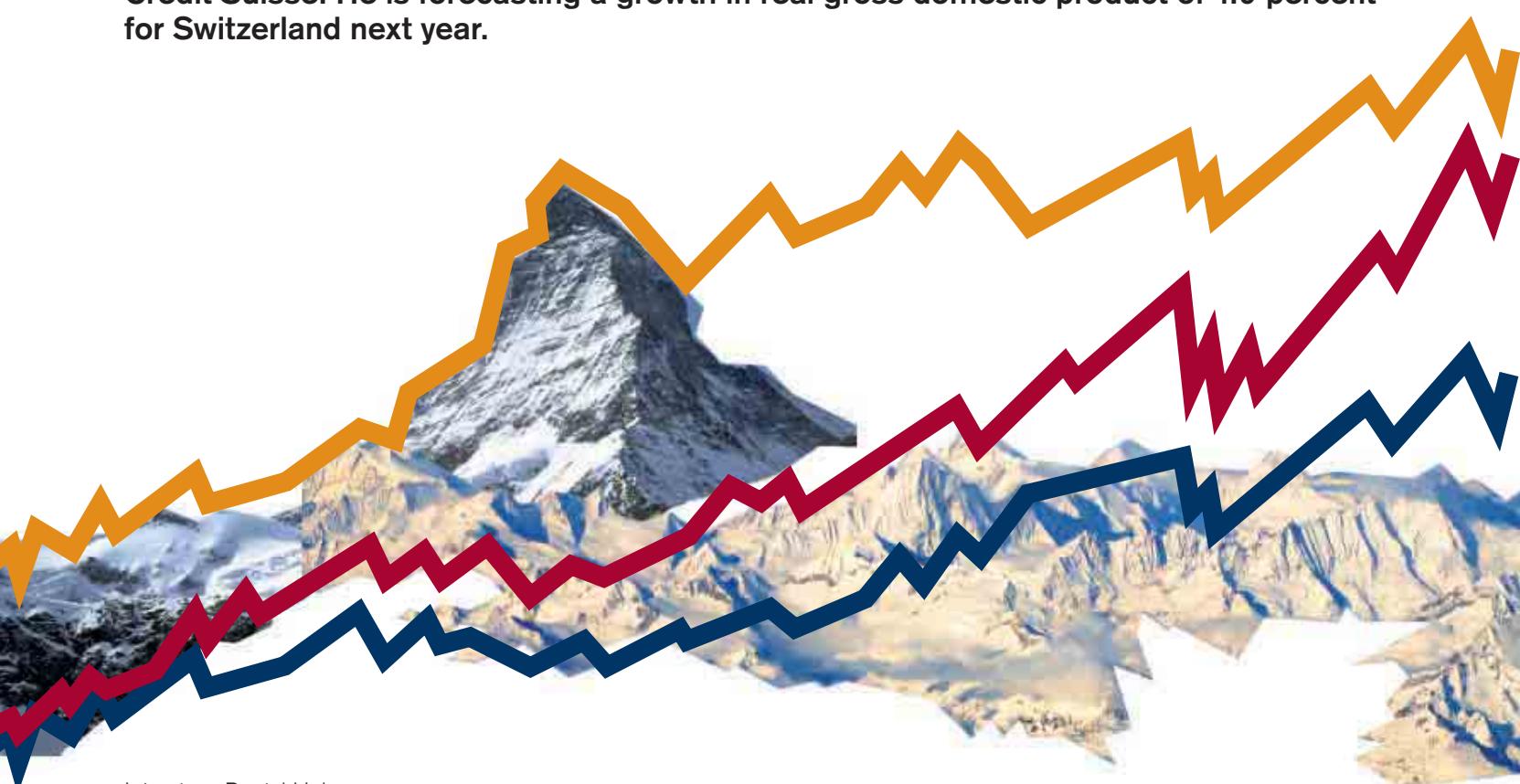
#### US Fights for Share of Global Savings

The oil-exporting nations are starting to diversify their economies which means they have new investment opportunities at home that did not exist before. China still has a very large capital surplus, but that is likely to decline as domestic consumption grows and as the renminbi continues to appreciate, and in the meantime, the authorities have announced their intention to divert some 200 billion dollars from reserves (invested largely in US bonds) into a wealth fund with a much broader investment remit. In this changed environment, the US has to bid much harder for its share of global savings. That tends to mean a lower dollar, a steeper yield curve and also a political willingness to allow at least partial stakes in some of the nations companies to be sold to foreign sovereign investors.

This changed world contains many elements that are unfamiliar, and is likely to be more volatile than in recent years. But it is also likely to offer many exciting new investment opportunities, not only in the fast-growing nations of Asia, but also in the resource-rich countries that are scrambling to diversify their economies. <

# “A Slowdown Would Be a Good Thing for the Swiss Economy”

The international credit market crisis and rising price of oil will not derail the Swiss economy from its growth trajectory in 2008, says **Alois Bischofberger**, Chief Economist of Credit Suisse. He is forecasting a growth in real gross domestic product of 1.9 percent for Switzerland next year.



Interview: Daniel Huber

**Bulletin: The negative repercussions of the mortgage crisis in the US is a hot topic now. How strongly will this impact on the Swiss economy?**

Alois Bischofberger: We cannot expect the credit market turmoil to have no impact at all on Swiss economic development, and the slowdown in the global economy and surge in the oil price will also make themselves felt. But the repercussions will be moderate and entail no collapse in growth. A slowdown would actually be a good thing, as there are clear signs emerging that the economy is overheating. There are some glaring shortages of specialists and highly qualified professionals in the labor market, while capacity utilization is extremely high. In the mechani-

cal engineering, electricity and metals industry this stands at a record high of 94 percent. If the rapid production tempo persists, the medium-term consequence would inevitably stoke inflationary fires.

**Many people think that a period of stagnation is now upon us after the years of plenty.**

We are still far from stagnation. Global economic growth continues to lie at around 5 percent. While it is true that it will be lower next year, it will still remain above the long-term average, driven in particular by a solid domestic economy in Europe and powerful growth in the Asian emerging markets.

In Switzerland we are experiencing the opposite of stagnation. The Swiss economy

is booming. The momentum of growth for the first semester of 2007 was significantly greater than that of the European Monetary Union (EMU), as is demonstrated by higher growth rates in new orders, production, exports and capital expenditure.

**But isn't it nonetheless true that we have reached a turning point?**

Yes, it is. The global economy has been living in a golden age, as it were, for four years now. Now, however, there are signs that the global economic backdrop is becoming less rosy. In the medium term, there is likely to be upward pressure on inflation. Higher interest rates make investment more expensive, though they also mean a reduction in wasteful investment. But the term “turning

point" should not be interpreted to mean that we are on the brink of a long economic slump. In the medium term, the wider parameters of the global economy remain favorable. Positive factors include the high global requirement for investment in infrastructure, energy production and distribution, the technological progress that leads to innovation, and the increased globalization that brings both a more international division of labor and greater competition.

#### **How strongly – or with what time lag – will the Swiss economy be influenced by stock market trends?**

The Swiss economy will be less affected by the repercussions of stock market fluctuations than by other influences, such as labor market development, income prospects, and the corporate sales and earnings prospects. That doesn't mean that our economy is immune to what happens in the financial markets. But the effect is likely to be cushioned by these real economic factors.

#### **What are your economic forecasts for the coming year?**

We are anticipating growth in real gross domestic product (GDP) of 1.9 percent, and an average rate of inflation of 1.1 percent. In 2006, GDP rose by 3.2 percent. This year we are expecting a figure of 2.5 percent. We've talked about the development of spending. Where capital expenditure is concerned, there is evidence of conflicting trends. Construction investment is continuing to lose steam, while company investment in plant and equipment is continuing its positive trend, albeit with reduced momentum.

#### **And what is the outlook for exports?**

The growth rate in real exports will work out lower in 2008 than in the current year due to the decline in growth of the world economy. However, new orders from abroad continue to increase strongly, suggesting that exports will continue to make a significant contribution to overall Swiss growth. The medium-term outlook for our export industry is healthy. It is being driven not only by the global boom in investment but also by the increase in the standards of living in many developing countries. The emerging middle class is looking to acquire upmarket consumer goods from the industrialized nations, not least from Switzerland.

#### **Where is the labor market heading?**

The unemployment rate is likely to fall to around 2.4 percent over the course of 2008, equating to around 2.6 percent on average for the year as a whole. There remain sig-

nificant differences between regions and industry sectors. There will be almost full employment in the chemical-pharmaceutical industry, in mechanical engineering and in financial services. French-speaking Switzerland and Italian-speaking Switzerland will continue to have higher unemployment rates than their German-speaking counterpart. The lack of specialists and highly qualified professionals will remain acute in many businesses, despite the slowing of growth momentum. For this reason, employment will continue to rise. We are anticipating an increase of 2 percent for this year, and a slowdown to 1.2 percent in 2008.

#### **Is the Swiss franc going to remain at such a low level against the euro?**

The Swiss franc should appreciate to around 1.60 over the next 12 months. The rise will be moderate; the exchange rate will continue to stimulate the export economy. By contrast, the Swiss franc is likely to appreciate rather more strongly against the US dollar. The financial market turbulence of the last few months has had a minimal and only temporary effect on the euro/franc exchange rate. There has been no stampede into the Swiss currency. It looks as if the increased confidence in the solidity of the European single currency is significantly reducing upward pressure on the franc in turbulent times. Whether or not this will prove a permanent phenomenon remains to be seen.

#### **Is your view, what will be the major stories preoccupying the Swiss economy over the next year?**

From a global perspective, the aftermath of the credit market turmoil will continue to occupy center stage. Another issue could be the potential flare-up of protectionist tendencies against a backdrop of slowing growth. There may also be debate on whether the monetary policy of central banks during the financial market turbulence has set the scene for a rise in inflation. The next 12 months are likely to see increased attention on the political and economic intentions of the US presidential candidates.

Within Swiss borders, scarcity of supply in the labor market will remain an important issue. Immigration can alleviate some of these symptoms. In addition, high priority should be accorded to the proper training of Swiss workers. Measures aimed at eroding Switzerland's status as a "high-price island" are likely to be the subject of heated debate. And soon a new legislature will take office, and we will see if the new parliament is up



**Alois Bischofberger has been Chief Economist of Credit Suisse since 1986. His economic forecasts for the Swiss economy next year are upbeat. Among other things, Bischofberger holds the firm view that consumer spending will continue to remain at a high level thanks to the persistently high level of employment and the rise in purchasing power. In addition, the unemployment rate could fall to 2.4 percent over the course of next year, coming in at 2.6 percent for the year on average.**

to tackling key challenges, such as putting Switzerland's social welfare system on a secure long-term footing.

#### **What are your forecasts for the Swiss financial center in 10 years?**

The banking sector will continue to play an important role, both for the Swiss economy and internationally. It already contributes 10 percent to our GDP, and continues to head the international league tables of cross-border asset management for private individuals. But it's no secret that there is a continuing rise in competition between different international financial centers.

Maintaining our position will require major efforts. The goal, however, is to consolidate our current position. This can be achieved if the improvements in the wider parameters recently targeted in the "Swiss Financial Center Master Plan" can be consistently implemented. The Master Plan sets an ambitious vision: it aims to position Switzerland, currently ranked sixth among international financial centers, in the top three alongside London and New York by 2015. This is a challenge not only for the Swiss political system, but also for the financial institutions themselves. <

# Education Reigns Supreme in a Flat World

Education has been relatively static over the past decade, while connectivity technologies have ushered in rapid global economic transformation. The outcome is a widening gap between **the geographic demand for labor and the supply**. Nations that quickly adapt their educational systems can still improve their future and boost global productivity.



Text: Steven Soranno, Equity Research Analyst

The shifting demand for labor is changing the types of education required while adding to the imperative that the billions of people below the education poverty line receive proper training. Meanwhile, connectivity technologies are dramatically lowering the costs of information exchange, making it possible to share information and develop ideas. This reality is enabling information and training to reach the global population in ways never before possible. Despite this, education around much of the world is in

crisis. In India, for example, over half the nation's 1.1-billion population is age 24 or younger, among the world's highest percentage and a potentially invaluable asset. But despite substantial progress, literacy rates remain well below the global average. Only 10 percent of Indians ages 18 to 24 are enrolled in higher education compared with 45 percent in the west, according to Prime Minister Manmohan Singh, and many who do graduate from the universities are inadequately prepared for most of the jobs inter-

national companies need filled. As a result, India has a critical labor shortage. Wages are on a pace to surge nearly 15 percent in 2007, after a 14 percent jump last year, rapidly eroding India's labor cost advantage versus countries such as China where average wage increases are 8 percent to 9 percent per year. Very nearly one quarter of India's information technology workers changed firms in 2005, generating a massive loss of accumulated experience for companies that invested in training; a cor-

porate asset that had to be replaced by offering higher wages to attract similar experience in the open market.

As the world becomes connected in a networked economy, the rate of change is increasing, while innovation and dynamic thinking are rising in importance. A good example is Korea, where the government spends 7.5 percent of gross domestic product (GDP) on an educational system that has a strong traditional emphasis on rote memorization. Despite spending more on education than any industrialized nation, Korean citizens spent roughly 38 billion dollars last year on supplemental private schooling, and the number of students enrolled in foreign schools doubled from 1998 to 2005. Korea lags only behind India and China in the number of students attending US schools, although those countries have over 20 times the population. The key risk, is that many of these students may not return.

### **Education Equals Future**

As if by providence, the same types of connectivity technologies sparking the demand for educational change are also vastly enhancing nations' abilities to accomplish such change. Among the varied education solutions being applied in India is a pioneering use of satellite technology. While India has a significant trained teacher shortage, it is using connectivity technologies and innovative practices to spread the word of those it does have. The world's first education satellite, Edusat, began a phased service deployment late in 2006 after a test phase that linked government schools with rural teacher training centers. Roughly 30 percent of India's population is illiterate, with the vast majority living dispersed in rural areas. Edusat spreads knowledge from well-equipped urban schools to roughly 5,000 remote terminals at under-equipped rural schools.

### **The Role of Educational Imperative**

Partnerships between national governments, multinational organizations such as the World Bank and UNESCO, and corporations, are building technology-laden education networks at fast paces. Private participation often brings technological expertise, manufacturing capabilities and, if necessary, change leadership. Government involvement helps assure cultural awareness and product distribution. Non-profit assistance often coordinates the presence of enabling content, such as laptops or microfinance.

In one example, the United Nations, the African Union's New Partnership for Africa's Development (NEPAD), and several major telecom equipment companies are working feverishly to ready for the day in 2008 when a fiber-optic cable being laid along the continent's east coast is scheduled for completion, bringing broadband access to 22 nations. NEPAD's e-schools initiative has the ambitious goal of wiring 600,000 African high schools by the time the cable becomes operational. In another example, roughly 80 percent of Ethiopia's students live in areas without electricity or running water, but the nation recently built 458 schools with gas generators that power 42-inch plasma television screens. Every day, these TVs feature broadcast lessons from South African schools.

The Kenyan government is profiting from the country's low wage advantage to train a call-center-ready workforce. Kenya's call center employment soared from 200 people last year to 3,000 this year. At present, the nation relies on expensive satellite connectivity, but if connectivity costs plummet after Kenya links to the fiber-optic-network. A partnership between the UN Development Programme (UNDP), companies such as AMD, Quanta, Red Hat, eBay and Google, and the One Laptop per Child (OLPC) organization is planning to deliver 2.2 million laptops to Rwanda by 2010. Some Rwandan

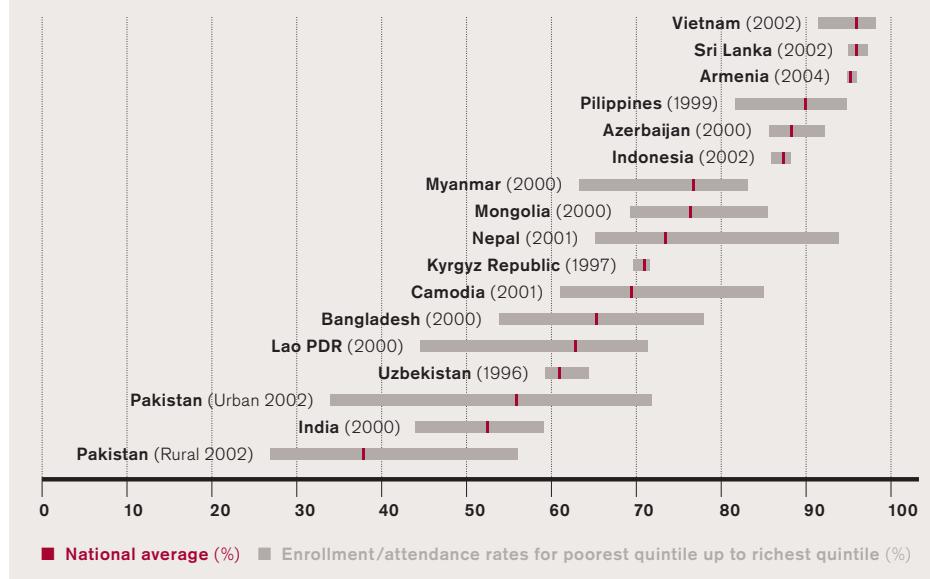
schools already feature Smart Boards – large touch screen computers that enable students to interact with their lessons.

The words of OLPC's founder and chief, Nicholas Negroponte, are especially revealing when he describes students who have received the laptops in test distribution: "Their first English word is Google and they know Skype, they have never heard of telephony ... they go home at night and they have a broadband connection in a home that does not have electricity. The parents love it because when they open up the laptops, it is the brightest light source in the house."

Seven nations have committed to large scale OLPC distribution, including Thailand, Brazil, Nigeria, Argentina, Libya and Uruguay. OLPC recently began mass production and plans to have three million units ready in October. These units will go into final testing before mass deployments to low-income children next year. Negroponte is forecasting a 100-million unit peak annual production. The laptop is designed for use with alternative power sources, such as solar panels and an innovative hand-powered generator. It should have a 135-dollar unit cost at initial mass distribution next year, declining to an estimated 50 dollars by 2010. Many other companies are involved in similar projects, whether involving laptops, servers or software. The 21st century promises to be a supremely interesting time. <

### **Inequalities in Net Primary Enrollment/Attendance Rates, Selected DMCs (percent)**

**The ability of nations to quickly adapt their educational systems for changing labor demand trends will largely determine their economic fortunes – and have a significant global productivity impact.** Sources: Estimates compiled from Angel-Urdinola et al. (2006), Deolalikar (2005a), Pakistan Federal Bureau of Statistics (2006), UNICEF (1999, 2000a–d, 2005), World Bank (2004a, 2005, 2006)



# Sun Rises on Solar Energy

The heat is on solar energy these days as concern about global warming and rising oil prices prompts more countries to launch programs to promote solar power. In doing so, they are helping this relatively young industry to boost innovation and achieve growth rates of which other sectors can only dream.



Text: Dominik C. Müller, Equity Sector Research

In less than two hours, enough solar energy reaches the surface of the earth to satisfy the entire energy needs of the world's population for a full year. At least, that's the theory. In practice, solar cells generate not even 0.1 percent of the electricity produced around the globe. The potential is therefore huge, and the political will to promote environmentally friendly power generation is growing steadily.

## Lucrative Incentives for Solar Power

In Europe, it is mainly southern countries such as Spain, Portugal, Italy and Greece that are following the German example in passing legislation that will subsidize each kilowatt-hour (kWh) of electricity that is fed into the national grid from solar installations by up to 0.50 euros for the next 20 years or more. These are considerable incentives that promise operators annual returns of

over 10 percent on their solar installations, depending on location, weather conditions and panel type. These promotional programs are gaining additional momentum thanks to the European Union (EU) Energy Commission's ambitious target of satisfying 21 percent of EU-wide energy consumption from renewable sources by 2010.

The US is also getting serious about the sun. At the state level, California leads the pack, having just made 3 billion US dollars available to support solar installations. The most progressive nation in Asia is South Korea, which promotes the construction of solar energy plants with low-interest loans and guarantees a payment of 0.58 euros per kWh for 15 years.

Meanwhile in Japan, which currently accounts for 17 percent of solar energy installations worldwide, solar power hardly attracts further subsidies. Against a backdrop

of generally high electricity prices, however, demand remains steady, especially as solar plants can be integrated cost-effectively into new-build homes.

## A Blossoming Industry

The industry has responded to the enormous surge in demand with a huge expansion in capacity. At the present time, the global output of solar cells is growing at some 40 percent every year. There are almost weekly reports of companies building new production lines for solar modules or increasing their output of crystalline silicon. As the main raw material for the solar industry, supplies of the latter are becoming tight, and market prices have thus more than doubled within the last two years. As a result, some manufacturers of solar silicon and silicon discs are generating returns of which other companies can only dream.

In the medium to long term, however, the aim of politics and industry alike is to make solar power a competitive form of electricity. In some countries, this should take as little as five years, but should be a reality worldwide within no more than 10. Achieving this target demands an annual reduction of at least 7 percent in the price of solar panels – a rate of reduction that is also a condition of state subsidies.

Players in the solar business are responding to this pressure on prices with technological innovation and by improving operating efficiency. The basic construction of most types of solar cells is simple, so there is no reason they should not become a cheap, mass-market good in the long term. We may well see a drop in prices such as that experienced by the computer chip industry. While the outlook for the sector is rosy, with broad-based consolidation ahead, it is also hard to overestimate the benefits that solar technology provides to society.

### Generating Power Everywhere

The first solar modules of the 1950s achieved an efficiency of just 6 percent. The figure for today's silicon-based cells is over 20 percent, meaning that more than a fifth of the captured sunlight is turned into electrical energy. The current world record is held by special cells for satellite applications, which are over 40 percent efficient. Low-cost solar energy will likely be available everywhere in just a few years' time, with a corresponding shift in the structure of energy generation away from central power plants toward more local installations.

In the future, solar power will not be generated on the roofs of industrial halls or at large-scale solar farms alone. The latest technologies open the door to a whole range of new applications, such as nano-coated cell phones or laptops which recharge their batteries automatically via their active photovoltaic cases and homes that have power-generating windows. Second-generation cells, known as thin-film modules, are already more cost-effective, can be molded into any shape, and are lightweight and therefore easy to integrate into a variety of materials, on roofs and facades and even in textiles. The widespread image of solar installations as bulky eyesores could therefore soon be a thing of the past.

As the worldwide promotion of renewable energies gains in importance, so too does that of lightweight, efficient means of stor-

ing energy. Demand is being driven primarily by two large and fast-growing markets. The first is for hybrid and electrical vehicles which, according to the market research company Freedonia, will expand by up to 50 percent over the next three years. The second is created by the dependency of the manufacturers of a rapidly expanding array of mobile electronic applications on ever more efficient batteries.

### Batteries in the Fast Lane

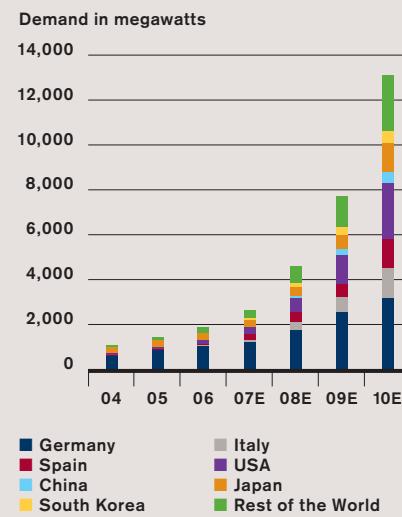
Both markets exhibit a clear trend toward improved, ultralight lithiumion (rechargeable) batteries with a very high energy density and new nano-coated electrodes, which allow them to be recharged very quickly. With these new batteries, electrical vehicles should soon achieve mileages comparable to those of conventional automobiles. What's more, a full recharge should take less than 10 minutes and cost only a fraction of a full tank of liquid fuel. The major auto producers in both Japan and the US have recognized this potential and instructed well-known battery manufacturers to develop such low-cost, high-performance batteries.

These clean technologies will certainly become part of our daily lives. The question is – to what extent? While the long-term winners on the industrial side have yet to be identified, the social beneficiaries are clear. Future generations will thank us for setting our sights on solar energy. <

### Growing Demand

**Estimate of new solar panel installations worldwide: just under half of all new photovoltaic systems are being installed in Europe, with the US and Asia accounting for a quarter each.**

Source: Credit Suisse



**New Materials Mean Better Cells:** the Nobel Prize-winning invention of **conductive polymers** paved the way for organic solar cells that can be produced from cheap, flexible plastic and wound around structures or even painted on. Their low resistance to ultraviolet (UV) light and relatively low efficiency have so far proved to be drawbacks, although US scientists recently achieved an efficiency of 5.2 percent.

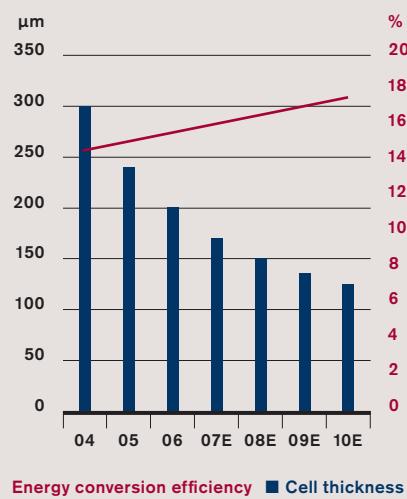
What's more, in the future ultra-thin **nanotechnology-based structures** from new types of materials should make it possible to produce windows which can generate electricity.

**Artificial photosynthesis** is another exciting development. Here, light is used first to ionize organic molecules before the electrical charge that this generates is passed to a cathode or anode.

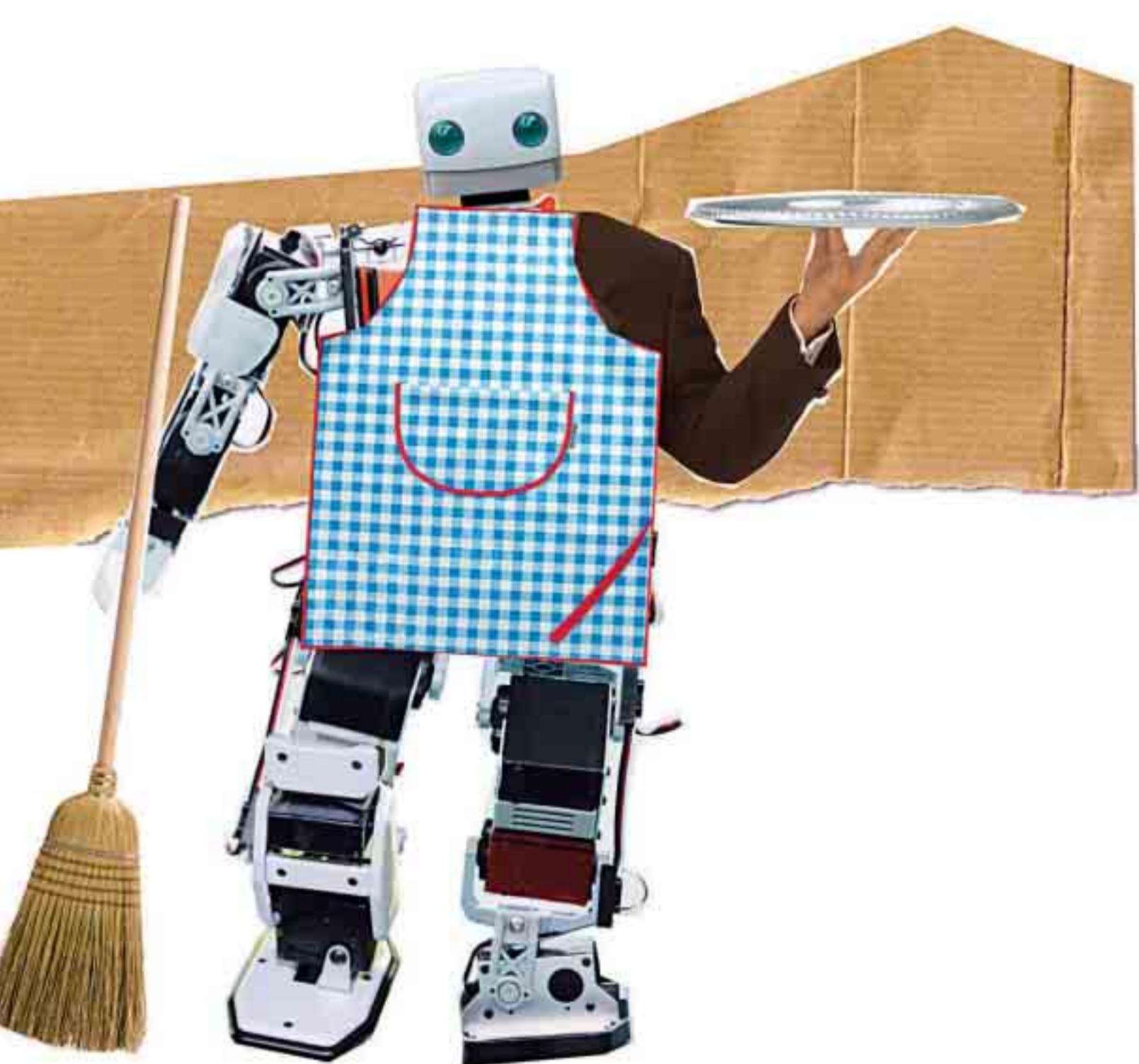
### Anticipated Cost Savings

**Measures to reduce the cost of silicon-based solar cells: raw materials consumption per cell is to be reduced by approximately 12 percent per year while efficiency is increased.**

Source: European Photovoltaic Industry Association



# Robots Lend a Hand in Japan



**It is no wonder Japan has been called “the robot kingdom.” Of the world’s at least 923,000 industrial robots, about 4 in 10 are in Japan. Now Japanese interest is turning to so-called service robots, which could play a crucial role in looking after the nation’s aging population.**

Text: Tony McNicol

Japan has a deep-seated infatuation with mechanical friends, whether it is with the heroes of manga (comic books) and anime (animation), hard-working industrial robots, or the public relations humanoids of major Japanese corporations.

Currently, all eyes are on the service-robot sector. This broad category includes underwater, medical, cleaning, security, fishing, forestry, caregiving, entertainment and pet robots. At present, such robots only make up a small percent of the overall robot market, but expectations for the sector are high. An example is the 2007 International Robot Exhibition due to open this November in Tokyo. Service robots are expected to account for more than a third of exhibits. Basically, the category includes any robot for use outside the factory, but the Paris-based International Federation of Robotics identifies two main types: professional-use robots and private-use robots. Of the former, they estimate that 31,600 were in operation at the end of 2005, the most numerous being underwater robots at 18 percent, cleaning robots at 17 percent, and defense and security robots following at 16 percent.

By comparison, private-use service robots are more numerous and much cheaper. Of the 2.9 million such robots accounted for by the International Federation of Robotics (IFR), more than half (1.8 million) were vacuum-cleaning robots like the popular Roomba robot made by the iRobot Corporation in the US. There were also 1 million entertainment and toy and 79,000 lawnmower robots. “Service robots are in the early stage,” says Marc-Antoine Haudenschild, a Credit Suisse Global Research Equity Strategist for Japan. “It is difficult and more expensive to build sensitive, highly intelligent machines, however, the market for service robots with minimal intelligence is doing well.” He notes that the IFR predicts professional service

robots to more than double by 2009, and personal-use service robots to reach 5.6 million by 2008.

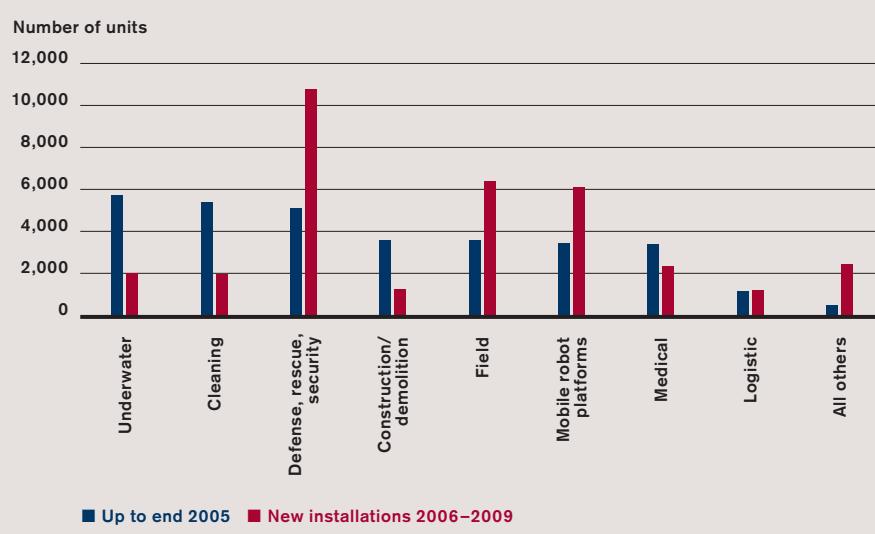
The most numerous, and certainly the most high-profile, service robots in Japan are for entertainment. Ever since 2000 when Honda amazed the world with its walking humanoid Asimo, other Japanese companies have been fast on their heels. Notable examples include Mitsubishi’s lemon yellow home helper Wakamaru, Toyota’s trumpet-playing humanoid, and Murata Manufacturing’s bicycle-riding robot. Although such impressive PR robots are too expensive to sell, Japan also has popular home entertainment robots. The best known to date is Sony’s robot pooch Aibo, which was produced between 1999 and 2006. Humanoids have been a hit too. Since 2004, Tokyo-based Kondo Kagaku Co., Ltd., have sold several thousand of their walking robot kits, which cost about 795 dollars. Owners build and

maintain the robots themselves, often entering them in Japan’s popular “robocon” soccer and fighting competitions. This October, toy-maker Takaratomy will try to draw new robot fans with the Omnidot 17μ: The i-SOBOT, at about 275 dollars, is much cheaper than previous home humanoids.

Less charismatic robots are also toiling behind the scenes. Service robot development is strong in “hard, mechanical” areas, says Shoichi Hamada, General Manager of the Technical Department at the Japan Robot Association (JRA). Japanese construction companies have been using robots since the 1980s, including construction machines adapted for unmanned use and robots to transport materials at building sites. From 1997 to 2002, the Ministry of Economy, Trade and Industry funded a five-year project to produce a humanoid robot for industrial use. The final 154-centimeter, 58-kilogram prototype, HRP-2, had 30 joints, >

### Service Robots for Professional Use

**At the end of 2005, 31,600 service robots were installed for professional use. Underwater systems were the most popular and accounted for 18 percent of the total.** Source: IFR Statistical Department, 2005 World Robotics Executive Summary



could walk on uneven ground and stand from a prone position.

### Robots as Caregivers?

Another potential role for service robots is dealing with Japan's imminent demographic crisis. A low birthrate and unrivalled longevity mean the number of elderly Japanese will increase dramatically over the coming decades. In the absence of mass immigration (which Japan has been keen to avoid) a severe shortage of caregivers seems inevitable. Some people believe robots are the answer. Takanori Shibata, a senior research scientist at the National Institute of Advanced Industrial Science and Technology, says that robot caregivers can be divided into physical service and mental service robots. The former are designed to help with tasks such as washing or carrying elderly people, although given the limitations of current technology, not to mention safety concerns, they are still quite a long way from commercialization.

Mental service robots on the other hand are already here. One of the best known is Paro, an interactive robot seal designed by Shibata himself. The sophisticated robot can remember its name and change its behavior depending on how it is treated. It has been extensively tested in homes for elderly people and in hospitals. In 2002 the Guinness Book of Records named Paro as "the world's most therapeutic robot." The robot reminds patients of the pets or children they once cared for, says Shibata. "Paro is a kind of

trigger to provoke something in the mind of the owner," he suggests. About 1,000 of the robots, which cost about 3,000 dollars, have been produced since 2004. Overseas sales will begin shortly.

Aside from a few limited markets the service robot industry is still in its infancy. One problem is that service robots have considerable technological hurdles to overcome before they are put to practical use. According to the Japan Robot Association, the government is supporting fundamental service robot technology research, such as advanced vision, sound and movement systems. Robot intelligence will be crucial too. "The reason that industrial robots have been so successful is that environments have been constructed to suit them," says Hamada, "but that's not going to work (for service robots) in ordinary environments." Scientists need to develop robots that can work anywhere, he says, even the haphazard changing layout of the average home or office.

Credit Suisse analyst Haudenschild agrees. "A main drawback of robots is their inability to convey tactile sensations and emotions when interacting with human beings," he says. "Although robots are adept at accurate repetition, they have limited powers of judgment when different movements must be performed randomly."

### People Want Emotional Robots

Perhaps the answer is a highly advanced kind of robot intelligence known as "kansei," literally "emotion or feeling." Kansei functions enable robots to recognize and convey emotion – something that could be invaluable for service robots working and living alongside humans. "People don't react logically, they react emotionally – robots need to be able to adapt to that," says Shuji Hashimoto, a researcher into kansei technologies and Director of the Humanoid Robotics Institute at Waseda University. Kansei robots could use vision systems to monitor human expressions, gestures and body language. Voice sensors could pick up on intonation as well as individual words and sentences. Robots could sense human emotion through wearable sensors that monitor pulse rate and perspiration.

Scientists at Meiji University in Tokyo have already created a robot that can respond with "feeling" to human speech. When the aptly named Kansei hears a word it searches the Internet to find common associations. The robot then matches the re-

sults to emotional categories and generates one of 36 expressions on its polyurethane face.

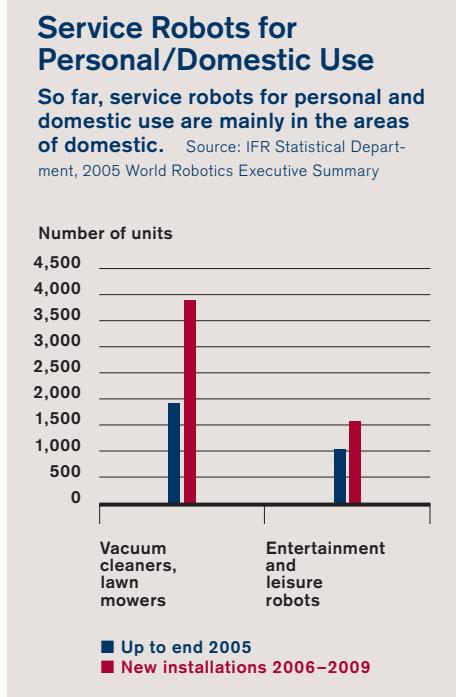
"We believe that artificial consciousness is necessary," says Junichi Takeno, a professor at the university's Laboratory of Robot and Science. "Robots will understand others and be self-aware." Takeno says that kansei technology may one day give care-giving robots a more friendly face.

It is still too early to say when the service robot industry will really get into its stride, or which country will be at its lead. And, of course, it may not even be Japan. Overall the industrial robot superpower is surprisingly behind in service robot research. The Japan Robot Association reported in 2000 that Japan is internationally competitive in only three service robot areas: industrial robots, construction robots and entertainment robots.

Research into medical robots has been hampered by inflexible safety regulations that prohibit robot surgeons like those already operating in the US. Nor can Japan compete with NASA on space robots. Military robotics research, which takes a huge bite of European and US robot research funds, is out of the question for pacifist Japan. Ironically, the earthquake-prone nation even lags in rescue robots.

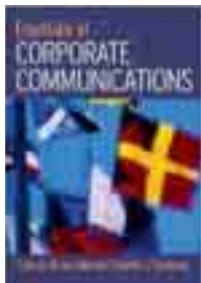
According to Shoichi Hamada from the JRA, government and industry are reluctant to assist research for a limited and unproven market. "Japan isn't very good at manufacturing the kind of robots that won't make a profit," he admits. Although, he adds, that might soon change when service robots start to make a profit. "After all, service robotics is a young and heuristic field; someone could produce a great application for service robots tomorrow. It could be an entertainment robot, a companion robot, a commercial cleaning robot, a robot car, or something else entirely."

While we wait to find out, one thing is certain: Japan is looking forward to the robot boom. With its leading industrial robot sector, unrivaled electronics expertise and robot-loving population, the nation will be well placed to catch up quick. A 2004 Ministry of Economy, Trade and Industry (METI) white paper on the future of the Japanese economy predicts that the Japanese robot market will grow to 15.8 billion dollars in 2010 and to 54.5 billion dollars in 2025. By then, it is predicted that three quarters of the market will be for service robots. <



## Essentials of Corporate Communication

A Helpful Overview of the Main Theoretical Models



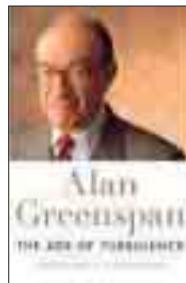
By **Cees van Riel**  
and **Charles J. Fombrun**  
Hardback edition  
306 pages  
ISBN 0-415-32826-8

Commercially driven organizations are convinced of the necessity to publicly announce the nature of their activities and mission, addressing at least the financial world, but in most cases also the media, the labor market, the public affairs domain, and most of all their clients and employees. However, the willingness to communicate does not always entail the ability to do so – and the sixty-four thousand dollar question is: how? How does a company effectively communicate with its internal and external audiences? How should a company create and manage a positive reputation?

Here's where Cees van Riel's and Charles J. Fombrun's book comes in. "Essentials of Corporate Communication" addresses topical and important areas of communication – identity, identification, reputation and corporate branding. The 11 chapters give an overview of the main theoretical models from around the world and meld them into one integrated framework. They also provide a framework to implement the most successful reputation management style and suggest a structure to be used when teaching the basics of corporate communication at higher levels of education in business schools and executive reputation management programs. As leading experts in the field, the authors draw on original examples and vignettes from a variety of US, European and Asian companies with a proven record of successful communication. All in all, the book is a well-structured, lively and engaging contribution to the current state of affairs in the corporate communication field, providing its readers with a research-based toolbox to be used for effective corporate communications. **ba**

## The Age of Turbulence

Adventures in a New World



By **Alan Greenspan**  
Hardback edition  
531 pages  
ISBN 978-1-59420-131-8

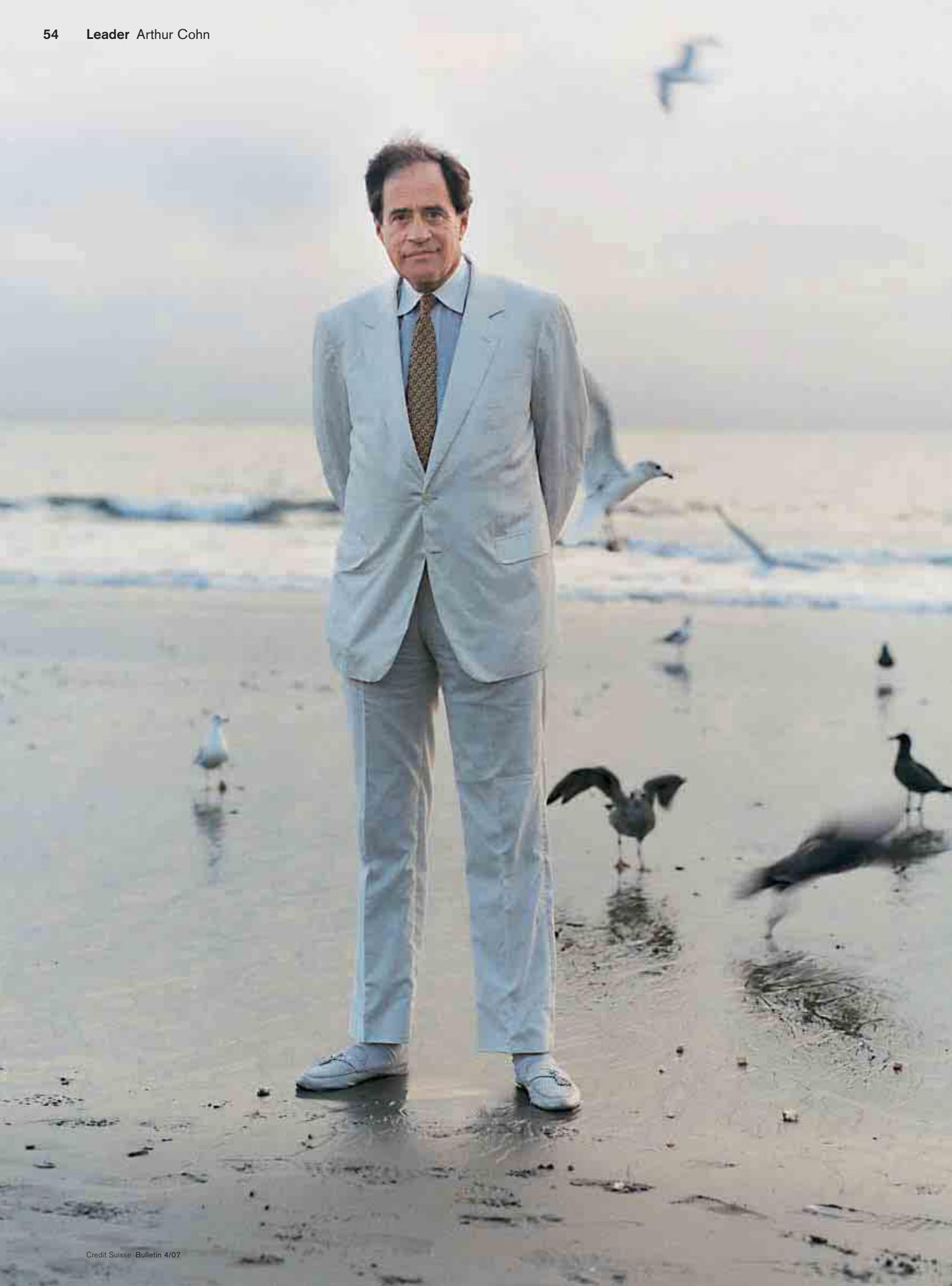
Alan Greenspan was chairman of the US Federal Reserve for 20 years, from 1987 through to 2006, so it is no wonder that the economic advisor has much to say in his autobiography, which is like three books in one: his memoir, his career and his view on the world economy today. He begins by giving insight into his youth in New York, when, after graduating from Juilliard in the '40s, he was balancing a career as jazz clarinetist and studying his economics books whenever he got the chance. After graduating from New York University in the late '40s and early '50s, economics was Greenspan's lifeblood. "My early training was to immerse myself in extensive detail in the workings of some small part of the world and to infer from that detail the way that segment of the world behaves. That is the process I have applied throughout my career," he explains.

Greenspan goes on to explain his take on the global economy, explaining the dynamics that drive world events, and provides an in-depth tour of each of the major countries and regions of the world, and where globalization is likely to lead them. Although the material is complex, it is expressed in a way that is understandable and interesting even for a general readership. He also goes into detail about his years as chairman of the Fed. Though he's always been a Republican, Greenspan, who has worked with six presidents over the years, states he was most impressed with Bill Clinton, saying that he had a "consistent, disciplined focus on long-term economic growth." He goes on to criticize the current Republican officeholders and the turn he believes the party has taken. This book is ideal for readers interested in a good biography, the global economy or politics. **mb**

The books reviewed can be ordered from [www.buch.ch](http://www.buch.ch).

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# “If You Stop Dreaming, You Stop Living”

Interview: Andreas Schiendorfer

**Arthur Cohn is one of Switzerland's best-known ambassadors. And not only in the film world. His principles seem basic; but through them he has seen success in his consistent pursuit of them. This independent film producer has never stopped dreaming and therefore has retained the openness of a child.**

**Bulletin: Your last film “Les Choristes” (The Chorus) was a major hit. It was nominated for an Oscar and seen by over nine million cinema-goers in France alone. When can we expect to see your next film?**

Arthur Cohn: The international release of “The Yellow Handkerchief” takes place in early 2008. It was shot in New Orleans in the summer and is currently being edited and finished in New York. In addition to Maria Bello, the cast of this romantic love story – based on a short story by Peter Hamill – includes Academy Award winner William Hurt and two newcomers, Kristen Stewart and Eddie Redmayne. Chris Menges has won two Oscars for his cinematography, and his camerawork in the film is unique. For me the film has an important message: Never give up!

**Apropos Oscars: You have won them for six of your films. What does this honor mean to you?**

An Oscar is simply the highest award in the world of film. It's enormously significant for two reasons. First, it confirms that you have

chosen a certain topic because you have something important to say. Something that draws people's attention to the understanding of everything that life can mean. Beyond this, by awarding a film an Oscar, the Academy – with well over 5,000 members – brings the film to the attention of the public. Steven Spielberg's “Schindler's List” only became a hit movie after the Oscars. For me in particular, who has never chosen mainstream topics, the Oscars are very important. Today, “Il Giardino dei Finzi-Contini” (“The Garden of the Finzi-Contini”) ranks as one of the 100 best films of all time. Initially, however, 31 distributors turned it down.

**You have produced a number of films that the experts had previously advised against. What makes you so certain that your vision is the right one?**

You always have to believe in the subject matter of the film you are working on. I believe that certain content has a universal message; if the film tells a story that appeals to people in a lot of countries, and not just a local audience, then I feel that I'm on

solid ground. But it's not only a question of money. Every filmmaker finds it fascinating and enriching to see his productions not only in his own country or in Europe, but everywhere around the world. A few years ago I was in Venezuela, and while strolling through Caracas, I discovered by chance one of my films that I had made in Basel playing in a small movie theater. That was a very special feeling.

**You once made some critical remarks about filmmaking in Switzerland today.**

**What exactly bothers you about it?**

My reservations always refer only to the choice of topic or audience, which I think is too narrow. It cannot be the function of such a powerful medium to produce films that are of interest solely between Lake Constance and the “Röschtrigaben” (the cultural border between German- and French-speaking Switzerland). Switzerland has a long tradition of filmmaking. Think of Lazar Wechsler and his legendary company Praesens-Film! Fredi Murer is another person I greatly admire. There are a lot of talented people around >



**As a law student Arthur Cohn worked as a journalist. At the beginning of the 1960s he entered the film business as a screenwriter and received an Oscar for the very first film he produced – about the lives of the indigenous population of New Guinea. Since then he has produced about 20 films, for which he has received numerous awards. These include honorary doctorates from the Universities of Boston, New York, and Basel, a star on Hollywood's Walk of Fame, and the Commandeur de l'Ordre des Arts et des Lettres, the highest honor that France can award a foreigner. He has won Oscars for six of his films, and another two were nominated. His films have also garnered Golden Globes and awards at the film festivals in Venice and Berlin. The mayors of Los Angeles and Shanghai have both declared an "Arthur Cohn Day." We interviewed Arthur Cohn on the occasion of the Credit Suisse leisure convention in Lucerne.**

today as well, both in front of the camera and behind it. Let's hope that more of them begin to discover universal topics again.

**What does the material need to have to attract your interest – and thus that of a worldwide audience?**

The subject matter must be new. I wouldn't make just a crime thriller or a western; there are thousands of those. My films tell stories that have never been told before. In that way they inform and enrich audiences. Before "The Garden of the Finzi-Contini" no one had shot a film like that, and Steven Spielberg told me that he would never have made "Schindler's List" if he hadn't seen my film years before. And the stories behind "Central do Brasil" (Central Station) and "Two Bits," starring Al Pacino, were novel when the films first appeared in movie theaters. And they are still unique today. As an independent producer – I don't have a company or studio behind me – I must produce films whose subject matter alone is enough to make them unique.

**What message would you like to convey to your audience?**

The stories I tell are not only new and unknown, but also realistic. I show life as it is – and in this way I can enrich the lives of the people in the audience. If the audience sees a realistic world, the story line means something very different in their lives than when the scenes are impossible to believe. Therefore, there are no special effects in my films and no imaginary computer-animated creatures.

**You always allow yourself a lot of time for filming. Is this another factor in your success?**

Yes, of course. Time pressure always impairs the quality of a film. So I always allow myself enough time for each phase of the film, from the screenplay to the premiere. For some projects, such as the filming of Paul Gallico's bestseller "The Foolish Immortals," more than a dozen screenplays have been written. But none of them are good enough yet.

**Is it a question of perfection?**

There is no such thing as absolute perfection. But when I look back, I never want to feel remorse that I could have done something better.

**When is a film a work of art?**

A work of art has many elements, and the audience also has to see it as such. Let me elaborate a bit on what I said before: The screenplay is crucial. Not even the best director can turn a poor screenplay into a

good film, but a mediocre director can't ruin a good screenplay either. Then there is the cutting and editing. The film's rhythm is of the utmost importance. For this reason I insist on the final cut in all my films, for example, the right to decide the final version in the cutting room.

**You once said that you had retained a childlike quality. Do you have a different way of looking at the world?**

Well, if I have retained a childlike quality, this is above all a certain openness in my approach to life. I am open to many people and their ideas and don't simply say "no" if I'm not familiar with something. All of us see the world with the eyes of a child if we see and hear something unusual. And in my profession I am often confronted with unusual things. Of course, this openness must be complemented by very reliable, precise work.

**You are an example to many people.**

**Do you have any examples of your own?**

I benefit enormously from good friends whom I can exchange ideas with. Meryl Streep, Liv Ullmann, Jodie Foster, Al Pacino, Jack Nicholson, and Kirk and Michael Douglas ... In particular I should like to mention Vittorio De Sica, with whom I made numerous films, including the aforementioned "The Garden of the Finzi-Contini." Until his early death in 1974, he was my mentor and even today he is still my role model. I also owe my parents a great deal. They gave me roots and they gave me wings: the traditional values of family background and the openness to new things.

**Although you tend to not to reveal much about your private life, how would you describe your relationship to Switzerland?**

Switzerland, and specifically the city of Basel, is my home. It is small, but not small-minded. Otherwise we wouldn't have a presence all over the world. As for the rest, I don't think people are really interested in whether I drink my coffee black or with cream. I would like to be appreciated because of my work. In my films I've been able to make my visions visible and accessible to all. They are my life and a fundamental part of my biography.

**Would you please sum up your films – and thus your life – in one short answer?**

If you stop dreaming, you stop living. We can make a lot of these dreams come true if we want to. <

# And the Oscar Goes to ...

**The history of the Oscar would make a gripping film. And Arthur Cohn would have an important part – stretching over more than 40 years.**

In February 2008, the Academy Awards of Merit, known to everyone as the Oscars, will be awarded for the 80th time. About one billion people will view this spectacle.

This was not the case on May 16, 1929. An award presented in the context of a private dinner interests nobody, especially if the names of the 12 winners have already been made known in a newspaper announcement. This changed in 1941, when the Academy started to keep the names of the winners in a sealed envelope like buried treasure – and, even more dramatically, in 1953, when the presentation of the awards was broadcast on television for the first time. There are various versions of the story of how the Oscar got its name. For example, on seeing the statue, the librarian of the Academy, Margaret Herrick, is said to have exclaimed: "It looks just like my uncle Oscar!"

Over the course of the decades, there has been many an injustice. Orson Welles' masterpiece "Citizen Kane" (1941), for instance, now regarded as the best American film ever made, failed to win an Oscar. And Sergio Leone's classic "Once Upon a Time in America" (1984) was not even nominated. Alfred Hitchcock, on the other hand, was nominated six times, but all he ever received was the honorary Oscar, the Irving G. Thalberg Memorial Award, in 1967.

All in all, though, the Oscar is an extremely reliable yardstick of artistic achievement in the preceding year, as it is awarded by members of the Academy of Motion Picture Arts and Sciences (AMPAS), currently numbering 5,773, under their president, producer Sid Ganis, and two vice presidents, actor Tom Hanks and the producer Bob Rehme. There is, in a manner of speaking, no loser in this award ceremony. In fact, the original formula "And the winner is ..." was changed in 1989 to "And the Oscar goes to ..." That said, some who never win an Oscar may feel they are to some extent losers, such as Peter O'Toole (8 nominations) and Richard Burton (7). The same holds for Steven Spielberg's "The Color Purple" (11 nominations in 1986), Herbert Ross's "The Turning Point" (11/1978), and Martin Scorsese's "Gangs of New York" (10/2002).

However, there are lots of winners – in particular the Walt Disney studio, which has been nominated no fewer than 64 times and won 26 Oscars. Some Oscars also went to films that Mickey Mouse's creator produced himself. The most-honored woman is Edith Head, a costume designer who won eight Oscars between 1950 and 1974. Arthur Cohn is also up there among the leaders as the most successful independent film producer, receiving awards for six films (see box). Other Swiss winners before him were the Praesens film "Zurich" and the 1944 drama "Marie Louise" directed by Leopold Lindtberg, which won an Oscar for its screenplay by Richard Schweizer. In 1982, Markus Imhof's "The Boat Is Full" lost out to Istvan Szabo's "Mephisto," but in 1991 Xavier Koller's "Journey of Hope" (produced by Peter-Christian Fueter and Alfi Sinniger) won the Oscar for the Best Foreign Language Film.

The most successful films in the history of the Academy Awards are "Ben Hur" (1960), "Titanic" (1998), and "The Lord of the Rings: The Return of the King" (2004), each of which won 11 awards, followed by "Gone with the Wind," the 1939 classic, which won 10 Oscars (from a record 15 nominations). The complete "Lord of the Rings" trilogy received 30 nominations and won 17 Oscars.

The most-nominated actress is Meryl Streep with 14 nominations and two Oscars; Katherine Hepburn, on the other hand, won the greatest number of Academy Awards with 12 nominations and four Oscars. Among the men, Jack Nicholson leads with 12 nominations and three Oscars. To date, George Bernard Shaw is the only person who has had the honor of receiving both a Nobel Prize in 1925 and an Academy Award in 1938.

There are about 30 categories in total, of which the following five are regarded as the most important: best picture, best direction, best actor, best actress, and best screenplay (either original or adapted). Three films have won in all five categories: "It Happened One Night" (1934), "One Flew Over the Cuckoo's Nest" (1975), and "Silence of the Lambs" (1991). Perhaps the same phenomenon will happen again in 2008. schi



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|--|---|------------------|
| <b>2004</b>                            | <b>The Chorus</b>                           |                  |
| <i>(Les Choristes)</i>                 |   |                  |
| <b>2001</b>                            | <b>Behind the Sun</b>                       |                  |
| <i>(Abril Despedaçado)</i>             |   |                  |
| <b>1999</b>                            | <b>One Day in September</b>                 |                  |
| <b>1998</b>                            | <b>Central Station</b>                      |                  |
| <i>(Central do Brasil)</i>             |   |                  |
| <b>1996</b>                            | <b>White Lies</b>                           |                  |
| <b>1995</b>                            | <b>Two Bits</b>                             |                  |
| <b>1991</b>                            | <b>American Dream</b>                       |                  |
| <b>1984</b>                            | <b>Dangerous Moves</b>                      |                  |
| <b>1979</b>                            | <b>Adoption</b> ( <i>L' Adoption</i> )      |                  |
| <b>1978</b>                            | <b>Black and White in Color</b>             |                  |
| <i>(Noirs et blancs en couleur)</i>    |   |                  |
| <b>1973</b>                            | <b>A Brief Vacation</b>                     |                  |
| <i>(Una breve vacanza)</i>             |   |                  |
| <b>1972</b>                            | <b>We'll Call Him Andre</b>                 |                  |
| <i>(Lo chiameremo Andrea)</i>          |   |                  |
| <b>1970</b>                            | <b>The Garden of the Finzi-Contini</b>      |                  |
| <i>(Il giardino dei Finzi-Contini)</i> |   |                  |
| <b>1970</b>                            | <b>Sunflower</b> ( <i>I Girasoli</i> )      |                  |
| <b>1968</b>                            | <b>A Place for Lovers</b> ( <i>Amanti</i> ) |                  |
| <b>1967</b>                            | <b>Woman Times Seven</b>                    |                  |
| <b>1964</b>                            | <b>Paris Secret</b>                         |                  |
| <b>1961</b>                            | <b>The Sky Above, the Mud Below</b>         |                  |
| <i>(Le ciel et la boue)</i>            |   |                  |
| <b>won an Oscar</b>                    |   | <b>nominated</b> |

## @propos

### Infected?

Are you one of those people who plug in a USB stick and press ctrl S every 200 characters or so? What's even worse: Are you overcome by feelings of relief afterward? – Don't worry, you're not alone.

Although this kind of behavior could technically be classified as a pathological disorder of a possible obsessive-compulsive nature, most personal computer (PC) users really don't care. They go on conscientiously performing saves. It could be argued that saving is like breathing: It's something we do automatically. If irregularities occur, there may be consequences – rhythmic disturbances of this kind (in breathing or in save operations) can lead to data loss or a complete system crash. From a physiological point of view this could ultimately mean "the end," from a work point of view "merely"

overtime galore. Twitchy-fingered people know that for a fact. At this point, anyone who has ever lost documents full of painstakingly generated content because a nasty virus has eaten its way through their computer will nod in recognition and press ctrl S again on their PC. That's how bad things get.

But it wasn't always that way. There was a time when a virus still meant something medical. The word itself may never have heralded anything good, but it certainly had nothing to do with IT crashes. The "pre-viral" age ended exactly 25 years ago (which, in a way, makes this year an anniversary year). In 1982, Richard Skrenta, a 15-year-old high school student in Pittsburgh, US, programmed the first boot sector virus for the Apple II, the Elk Cloner.

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He didn't act out of malice, but simply wanted to play a practical joke – albeit poor one – on his fellow students. Unlike today's viruses, the Elk Cloner wasn't meant to cause serious damage: When an infected floppy disk was inserted the Elk Cloner simply caused the screen to go black following a failed reboot attempt, and then displayed Skrenta's poem with the title "Elk Cloner: The program with a personality."

It's just a pity that what was once the creative outcome of one young guy killing time later became the inspiration for the destructive schemes of many others. The financial damage presently caused by viruses and worms runs into the billions. And, let's not forget all of the borderline obsessives and compulsives frantically pressing ctrl S that are another lasting result.

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### Online Forum: Sustainable Investments

Times change. And that's the way it should be. Changing trends – whether economic, ecological, demographic or societal – always emerge particularly strongly in the business world. Just a few years ago, for example, green funds were reputed to be bad performers, with the result that only a small number of particularly determined investor groups showed any interest in the first sustainable investments. These were investors who gave clear priority to "the good cause" of social responsibility over financial attractiveness.

But things have changed slightly in recent years. Thanks to well thought-out, broadly diversified investment concepts, the risks associated with sustainable investments have now been largely minimized. Accordingly, the range of products has, in the meantime, taken on impressive dimensions.

However, the fact that today's society has embarked on a process of rethinking is of almost greater consequence in this context. People have generally become more aware of the scar-

In the forum, experts answer your questions on the subject of sustainable investments.



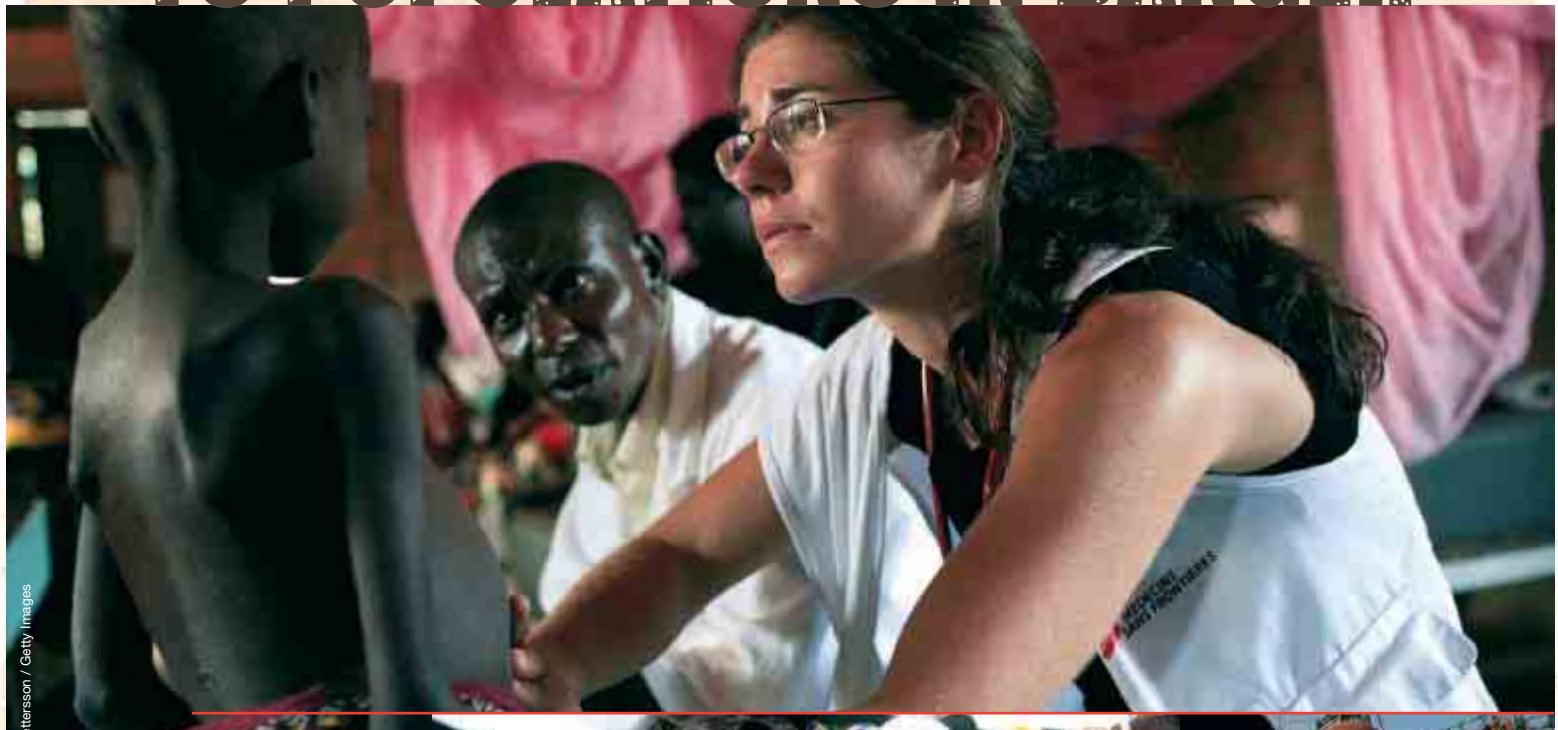
city of global resources. Today's investors thus want to know exactly what areas they are putting their money into, so that they can act in a responsible manner. Sustainable investments are therefore attracting the interest of companies, fund managers, and investors alike. That's why In Focus, the online magazine of Credit Suisse, is dedicating its next forum to the topic of sustainable investments.

The procedure is simple: Just submit your question at [www.credit-suisse.com/responsibility/en](http://www.credit-suisse.com/responsibility/en). Following a short time delay, the questions will be answered by proven experts in the field. You will be notified by e-mail as soon as the reply to your question has been received. At the same time, the question and answer will be published on the Internet (without mention of your e-mail address).

The forum starts on October 29, 2007, and will remain online for three weeks. mar

**Find out more at [www.credit-suisse.com/responsibility/en](http://www.credit-suisse.com/responsibility/en)**

# EMERGENCIES MEDICAL ASSISTANCE TO POPULATIONS IN DANGER



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