Emerging Markets Insight

BY MIRAE ASSET FINANCIAL GROUP Q4 2016

INDIAN EDUCATION Education Education Revolution

Indian classrooms are getting smarter. EdTech companies are rushing to seize the US\$5 billion opportunity.

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PLUS

SPECIAL INTERVIEW ZHU NING Is China Getting Used To The New Normal?

BRAZILIAN BUSINESS It Seems Like a Miracle



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Is the Chinese economy heading for a crash? Or is it getting used to the New Normal? Interview by Esther Oh, Kim Jiyeon

Profile

Zhu Ning Is a Professor of Finance at Shanghal Advanced Institute of Finance (SAIF), a faculty fellow at the Yale University International Center for Finance, and a Special-Term **Professor of Finance** at University of Callfornia, Davis and at Guanghua School of Management. Peking University.

TIME TO ACCEPT ECONOMIC CYCLES WITH GREATER SINCERITY

ZHU NING

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What made you decide to write *China's Guaranteed Bubble?* As a Chinese financial professional, it might not be easy for you to provide in-depth but provocative analysis of China's current economic practices and potential dangers.

First, I have worked closely with a Nobel laureate, Professor Robert Shiller at Yale University, with whom I have learned an alternative way of looking at the macroeconomy and financial system. The true catalysts are my experiences of visiting the IMF in 2013 and working with the Davos World Economic Forum over the past few years, during which I was surprised to realize how little China's economy and financial markets are being understood by the outside world. In addition, I feel that there was a bubble building when I wrote the book in 2014 and tried to use the book to prevent the bubble escalating into systematic financial risks. It took about a year before the

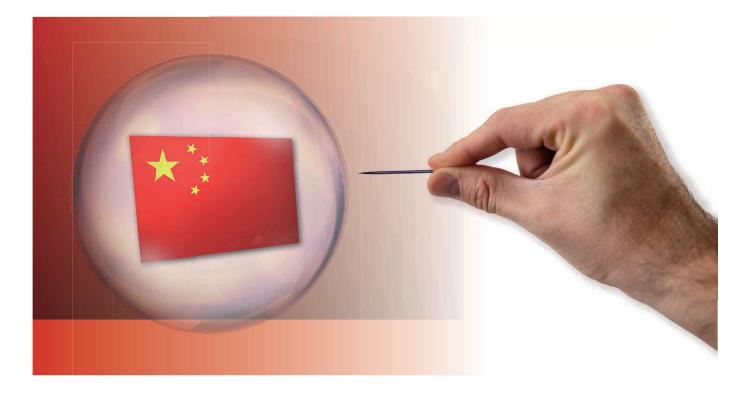
book was finally published, before which Chinese stock market went through its bubble and bust in 2015. Surprisingly, the book was very well received among professionals and government officials.

Your book gave major coverage to the concept of 'implicit guarantees.' Please briefly introduce what implicit guarantees are.

Guarantees are insurance that one party provide to the other in case something unfavorable happens to the other party. Many governments from various countries use different forms of guarantees to boost economic growth or achieve certain policy objectives. Guarantees prove to be particularly important and effective in addressing some "market failure" problems, where the risk of failing is too grand to overcome by simply market force, and government guarantees to share and hedge some risks help make transactions happen and market complete.

Things are a bit different in China in a way that China has gone a long way transitioning from a central planning economy to a market economy. The sheer bulk size of China's state-owned enterprises (SOE) and the opaque nature of many SOE's operation (many still have their own schools, kindergartens, restaurants, and theaters, among many other things), it is often very difficult to separate the enterprise from the state. Therefore, Chinese governments can provide many more guarantees to enterprises when it comes down to sector development and GDP growth.

I listed three main types of guarantees in China: the policy guarantee, the capital guarantee, and the investment guarantee. Policy guarantee means that government use specific policy to provide insurances and incentive for economic growth and investment, such as Mr. Deng Xiaoping's



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claim that "to develop is of paramount importance." The capital guarantee means that the government will provide ample capital to ensure economic growth and investment returns (at least nominal returns). China's M2 increased by about 15 fold in the past 15 years, which is unprecedented even among emerging economies. Such fast growth in capital formation will undoubtedly stimulate further investment and speculation, and economic growth. Thirdly, and more evidently in China during the past few years, are the investment guarantees. These include "explicit" and "implicit" impressions that government give about certain investment areas. The housing market, China's corporate bond market, and the stock market in 2015 all experienced this. Investors in the market believe, or understand, that the government will do everything it can to ensure the rise of the market, or at least to prevent the fall of the market. Such guarantees distort the risk-return trade-off in many finance and economic areas of China.

You pointed out the implicit bubbles adopted by the Chinese government as one of the fundamental causes of many challenges that China is facing today. However, had the government not intervened, and switched to a free market economy from the beginning, would China have accomplished the remarkable economic growth it has shown in the last 30 years? Some argue that South Asian countries such as Thailand and Indonesia have gone through free market failure, losing their chances to grow because they adopted free economy too early.

Indeed, I have discussed in many parts of the world how important such guarantees have been to China's economic growth miracle during the past three decades. There is no doubt about it. We have witnessed many failed attempts when countries try to transi-



The over-capacity problem, increasing debt problem, and deteriorating earning abilities all somewhat reflect the seriousness of the distortion in China's economy nowadays.

tion from a planning economies to a more market-oriented economy. This process is certainly not easy and some countries have managed the transition better than others. For example, Korea is considered one of the more successful examples of the transition. What I try to highlight in the book, nevertheless, is that such changes have to happen at a certain point and China is probably very close to that point if not already past it. The over-capacity problem, increasing debt problem, and deteriorating earning abilities all somewhat reflect the seriousness of the distortion in China's economy nowadays.

You worried that the latest financial innovations and channels such as online MMF and P2P loans can be used to circumvent regulations and trigger unprecedented risks. However, the financial landscape is changing and the financial environment is producing financial innovations. Wouldn't the financial innovation provide China with another chance to grow in the future?

Financial innovations are always a double-edged sword. Innovations such as MMF and P2P are certainly welcome in China, especially given the serious financial repression and distortion that I have mentioned earlier. However, what worries me is that many innovations that should be clearly classified under "shadow banking" and receive some regulatory attention, indeed grew with little regulatory purview. This explains why almost half of the P2P lending platforms vanished since late 2014. Even though the amount may not be large enough to worry the regulators, many





households have been negatively impacted and it casts a shadow on future development of truly healthy financial innovations. The efficacy of the so-called internet financing remains to be seen. Many of the socalled internet financing plans are actually traditional financing under the disguise of internet cover. With such cover and government support, these originally risky and traditional banking business turn into "safe" and "attractive" investment opportunities among investors. The extremely loose monetary policy and rising property prices are now covering up all risks and problems. However, when the tide goes out, we will get to see who has been swimming naked.

Like you mentioned, the enormous impact of the implicit guarantees will be gone someday. If possible, China has to prepare the transition from traditional growth models and find the path to sustainable growth. Can you suggest potential remedies to return China to the path of long-term sustainable growth?

China probably needs do the following

three major reforms.

1. Financial reforms. The interest rates in China are heavily regulated, even after the removal of the official savings rate cap in 2015. SOEs receive far greater and cheaper financing than private enterprises, but generate far lower returns.

Stock market listing requirements keep many good companies off the stock market. Lack of investment and financing channel caused many to speculate in whichever areas that can generate sizable returns (art, ancient furniture, jade and gemstones, tea, and of course, real estate). China has to build more "direct financing" channels, where investors and borrowers meet.

2. SOE reforms. China's SOE reform is a key ingredient and challenge of China's economic transition. SOEs are not merely enterprises, they are supplements to China's governments, especially at the subnational level.

So reforming SOEs will be closely related to financial reforms, and also touch the sensitive subject of employment. Part of the social resources allocated to the SOEs play the role of providing stable and in some cases lucrative employment opportunities to those who are connected to the government and SOEs. This is of course not a very efficient way of allocating resources and has to be reformed.

3. Fiscal and taxation reform. Some argue that the current fiscal system based on the 1994 taxation split reform under premier Zhu Rongji is responsible for local governments' incentive to sell off land at high prices and unwillingness to curb housing prices. How to better align the interests and responsibilities of central and local government, provide the right incentive to encourage entrepreneurship and human capital investment, improve the efficiency and disclosure of fiscal expenditures, and discourage financial and property market speculation, should all be on the agenda of next stage reform.

You suggested, as a solution, the removal of guarantees the government provides to the economy. Specifically what kind of actions can be taken for much-needed reform? The Chinese government may not be willing to risk the fallout from the removal of its implicit guarantees.

Related to the policy, capital, and investment guarantees, I recommend the following.

Regarding policy guarantees, I think the central party leaders have to send clearer signals for the next stage's goal. China Communist Party has been using GDP growth as the primary goal in evaluating and promoting its cadres. It is this GDP growth tournament mentality that gets China into many of its current challenges. So the new leadership has to come up with a new set of evaluation criteria with which the officials will be evaluated against in the new norm. Maximum growth speed should really be removed for many parts of the country by now.



Regarding the capital guarantees, China's monetary supply and total social financing (TSF) has increased too fast for too long, leading to quickly decreasing efficacy of further monetary easing. And the housing market and stock market has been playing the role of additional monetary supply. Asset bubbles and inflations have been giving way to economic growth speed in China's monetary policy decision process, which would eventually lead to a bubble. After all, bubbles are a monetary phenomenon where too much capital chases too little investment-worthy assets.

Regarding the investment guarantees, governments should play the role of a gate keeper, instead of an active player, in most markets. The CSRC is under the impression that it is responsible for shoring up the stock market and the ministry of housing and construction is under the impression that it is responsible for boosting the housing sector. Too active intervention by the governments will not only disrupt the market's expectation, but create further distortion. Therefore, the government should really have to become more tolerant in the face of losing investors. After all, investors have to learn to make their own judgments and face the consequences of their own decisions. Failures may probably be the most effective way - if not the only way - to teach investors to be careful with their investment decisions and respectful of the market.

The Communist Party of China has acknowledged the market's decisive role in allocating at the 18th central committee, and China is also attempting to reform its bloated state-owned enterprises. Can this be a positive sign implying that government's implicit guarantees are gradually being phased out? Are there any positive signals we can find regarding the removal of implicit guarantees?

Yes, all that has been advocated in the

18th central committee meeting of the China Communist Party is very encouraging. It is the speed of implementation, and sometimes the direction of policy implementation, that make one anxious.

The development of China's corporate bond market, the development of ABS and MBC market, the failure of some P2P and internet financing platform, the default of some corporate bonds issued by SOEs, are all welcome signs that China is trying to

> Failures may be the only possible way for the whole society to learn to be respectful of risks and take restraints.

gradually taper off its implicit guarantee, under the condition of not rattling the market and ensuring systematic stability. If one were to assume that the total risks remain largely steady, then letting certain local debt default and certain local markets to fall not only send the right signal that China's government will gradually taper off its guarantees, but also help let out some steam off the rising bubble. I would like to see how recent default events pan out and whether some investors really have to learn their lessons with suffering losses. It will not be pleasant or rosy. However, failures may be the only possible way for the whole society to learn to be respectful of risks and take restraints.

The government's guarantee problem does not seem unique to China. Leaders from

major economies keep planning to use active fiscal policies to boost economic growth (such as Japan's massive 2016 stimulus package or G-20 Central Bank Governors and Finance Minister Summit meeting last February). What is your opinion on this global trend?

One chapter of the book focused on delineating the guarantees provided by many other countries, in particular developed ones. The recent G-20 meetings have focused primarily on how to put global growth back on track. Before we answer the question of how to reboot the global economy, I feel it is critical that we review how we got here.

The excessive loose monetary policy in reaction to the 1987 stock market crash, 1998-2000 Southeast Asia financial crisis and internet bubble, the 2007-2008 global financial crisis, have probably already pushed traditional and even non-traditional monetary policy to its limit. The long-term growth problem that we are facing now are indeed consequences of various governments' attempts to avoid short-term recession and iron out the wrinkles in economy cycles.

If agree on this assessment, then I think it is about time that government leaders accept economic cycles with greater sincerity, instead of trying more extreme stimulus packages which could result in even greater challenges and risks in the future. Instead of trying to bring the economic growth speed back to their historical average, I think the leaders have to do some serious and difficult soul searching about their own country's politics, about engaging in domestic reforms that would improve quality of life and satisfaction domestically, and improve collaboration internationally. It probably will take some time to get used to, but the "new norm" pretty much means that the global growth will probably get stuck in a medium to low speed for a very long time ahead.

US\$5 BILLION OPPORTUNITY

Wired schools, virtual classrooms, 3-D learning, online tutorials: the scope in India is enormous, and EdTech companies can make a killing. By Suman K. Jhaa



Anay and Tanmay Sharma are siblings pursuing education from upscale institutions.

Preparing for his Class X board examinations next year, Anay's classroom in a tony South Delhi school is smart - the classroom is fitted with audiovisual equipment; the smart board is connected with the server (where anything that a teacher writes is stored for future reference); and additional reference material comes from a software vendor.

Tamnay's classroom in a top-notch management school in Ahmedabad is just as modern. The classroom comes equipped with a rotational three-board system (so teachers can seamlessly shift to the next board after finishing on the first, without having to wipe off the content); multimedia content is projected through smartphones; and antiquated loudspeakers have been replaced with highly effective cordless

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The smart classroom is paving the way for virtual classrooms wherein students can actively participate in the class proceedings from remote locations.

speakers. A virtual screen on which every student (and the teacher) can post content is a recent addition to the classroom.

The Indian classroom is evolving. Indeed, the smart classroom is paving the way for virtual classrooms wherein students can actively participate in the class proceedings from remote locations, or their hostel rooms.

Says Aript Goel, who runs Suncity World School in Gurgaon: "Our classrooms come fitted with the state-of-the-art infrastructure. They are wired to the local-area network. We spend 40 percent of the IT budget on upgrading our classrooms."

Adds Sanjay Yadav, who's the principal of G D Goenka Public school in the capital: "Our classrooms are smart-fitted with latest gadgets including computers. We have interactive blackboards. To supplement our teachers' efforts, we have tied up with ExtraMarks, after experimenting with Educomp."

New options

State-of-the-art infrastructure, wired schools, virtual classrooms, 3-D learning, after-class online tutorial groups, and e-learning combine together to present today's students options that were not available to the earlier generation.

True, it's the private schools that are leading the way, but some states are also doing their bit. In Gujarat, for instance, thanks to the state government, every block has one school with smart classrooms.

The national picture, however, may leave





"The school system should spend 5-10 percent of the budget on EdTech"

— ASHISH DHAWAN Chairman, Centre for Square Foundation a lot to be desired.

Says T.S.R. Subramanian, who headed the committee on the new education policy and traveled across the country to assess schools: "Wherever the committee saw school in rural areas, there was hardly any technology back-up of any sort."

According to a nation-wide Annual Status of Education Report 2014, the share of government schools with computers in 2010 was 15.8 percent. The figure improved marginally in 2014, to 19.6 percent schools with computers.

But are things changing, especially in urban areas?

According to a recent survey undertaken by the Centre For Square Foundation that covered early adopters of instructional technology for teaching and learning, over 80 percent of all teachers surveyed said they use computers in their schools. They also reported high use of mobile phones, with 68 percent having access to them. Smart board availability in government schools was 12 percent, but increased to 74 percent in high-end (high-fee) schools.

According to leading investor and veteran





"We have technology that ensures that every student is involved"

- ARUN PEREIRA Executive director, Indian School of Business watcher of this space, Gopal Jain: "Less than five percent of government schools have one or more smart classes in their premises."

He further adds: "Less than 10 percent of private schools have one or more smart classes in the school. And, less than one percent of private schools have 100 percent of their classrooms as smart classes."

Subramanian says that Digital India will be a reality in the next three to four years, and will cover over 250,000 gram sabhas, "which provides an unparalleled new opportunity to introduce technology in schools."

Mohandas Pai, who has invested in EdTech start-ups, does some quick math and says: "There are 250,000,000 children in schools up to class 12. One smart classroom can teach 100 children (four classes a day, 25 children in a class). So, we need 2,500,000 classrooms. If we consider

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US\$1,500 as the basic investment to make a classroom smart, we would need US\$3.75 billion to make all our school classrooms smart." This doesn't factor in the need for expansion of schools.

The impact of technology

The expenditure by the center and states on school this year has been US\$90 billion.

Concurring with the gist, Centre for Square Foundation's Ashish Dhawan and Namita Dalmia say that in an ideal world, "the school system should spend 5–0 percent of the budget on EdTech."

Presently, the government (center and states) spends about one percent of the overall school education budget on information and communications technology (ICT).

"Technology has had positive results in K-12 schools where teacher quality is a problem," says Indian School of Business's

professor Deepa Mani.

So there's a huge potential for participation and partnership by the private sector.

Say Dhawan and Dalmia: "There are two distinct opportunities — a) selling to schools and, b) selling directly to parents and students. The business-to-consumer model could be quite promising with the growth of the internet as has been demonstrated by Byju's and MeritNation."

It's not just the smart classroom that has contributed to the smart learning of the Indian student. According to a NSS survey, one out of every four students takes private tuitions, with the number becoming three out of four in metropolitan areas.

According to an ASSOCHAM study, the Indian private education market was US\$11 billion in 2014 and offline tuitions captured 95 percent of the market, growing at a rate of 35 percent a year.

It's in this space that players such as Eduwizards, Vedantu, and Urban Class have made a splash.

"The new and emerging tutoring trend in India is app-based by-the-minute live online tutoring, available 24/7," says Eduwizards's Ashish Sirohi.

EdTech companies

The canvas for smart and modern classrooms has been wider in higher education in India, with greater participation from the private sector.

Real growth in this sector will come when EdTech companies and other public institutions provide e-learning in regional languages. A recent NASSCOM report says that of the almost 800 million smartphones and internet users by 2020, 70 percent would be in rural India and a majority would be using regional languages.

Players like Unacademy, offering free quality video tutorials, are trying to replicate the popular Khan Academy model of free video tutorials here. While massive open online courses (MOOC) and small private online courses (SPOC) do offer an option, it's interesting to see how attempts have been made to reinvent the classroom in higher education space.

Says Bennett University chancellor Vineet Jain: "Technology is revolutionizing the manner in which education is being structured and delivered."

Says Arun Pereira, executive director, Centre for Learning and Management Practice, Indian School of Business, Hyderabad, "We have technology (smartphones, tablets, or laptops) which ensures that every student is involved every time a teacher asks a question. Student responses can be displayed on the classroom screen in real time."

He adds: "Today, we have technology that



"We would need US\$3.75 billion to make all our school classrooms smart"

— MOHANDAS PAI Chairman, Manipal Global Education "Technology enables the possibility of running sessions even when the participants are physically not present."

provides teachers with specific knowledge of students who have completed a homework reading or watched a video assignment, before they arrive in class. This technology enables the teacher to embed questions inside a homework reading (or inside a video assignment)."

Says IIM-Bangalore's professor P. D. Jose, chairperson, MOOCs Initiatives: "Our classrooms are state of the art with live-video conferencing facilities. This means that we can 'virtually' bring in management experts or business leaders from across the world into our classroom. Our faculty can also record their live sessions and make it available to students through the learning management system (LMS) used in the campus. In terms of hardware we use white boards, digital boards, and are now experimenting with light boards also."

Adds IIM-Bangalore dean administration G. Shainesh: "Technology enables the possibility of running sessions even when the participants are physically not present."

Around 30–40 percent of the institute's IT budget is spent on classrooms.

Shiv Nadar University vice-chancellor Rupamanjari Ghosh says, "Our in-house LMS (blackboard) integrates webinars, discussion forums, quizzes, wikis, quick polls, and open-book exams on a single interface."

Nirma University's Anup Singh says that the university also uses blogs for teacherstudent interactions, besides using social media tools like Twitter for educational needs.



IIT-Delhi's M. Balakrishnan says that flipped learning and flipped classrooms are the latest rage in IITs and several campuses across the country. Pioneer in this field Jon Bergmann says he is not surprised that flipped learning (a new teaching approach) is getting popular in India, because "it's the future of learning."

Window of opportunity

IIM-Ahmedabad's Anil Gupta says that US\$15–22,000 may have to be spent for a smart classroom in a university or institution.

If, however, one were to go by AICTE chairman Anil Sahasrabuddhe's estimates — US\$7,500 to make a smart classroom a sum of US\$1.8 billion would be needed to make at least five smart classrooms in the existing 35,000 colleges and 12,000 standalone institutes. Considering that public expenditure on higher education in the



"Our classrooms are state of the art with live video conferencing facilities"

- P.D. JOSE Professor, IIM Bangalore & chairperson, MOOCs Initiatives As a new generation of Indians takes to education in wired classrooms, smart learning is set to gain currency.

country is a paltry 0.6 percent of gross domestic product, the private sector has a big role to play.

Tanmay is lucky that he's getting worldclass education in an Indian classroom. Anay doesn't consider that as his good fortune — he considers it as his fundamental right.

As a new generation of Indians takes to education in wired classrooms, smart learning is set to gain currency. Clearly there's a huge window of opportunity for the private sector to expand, educate, and make money.

IT SEEMS LIKE A MIRACLE

In the midst of Brazil's worst recession in history, a number of small and medium businesses are finding ways to grow. See how they've done it.

By Naiara Bertão

PRIDE

GROWTH: 176 percent* INDUSTRY: Real Estate Development REVENUE: US\$2.5 million *Average revenue growth between 2013 and 2015

Common sense says that smaller businesses are more vulnerable to an economic crisis. Whereas large companies find all kinds of help when in need (banks, fearing a large default, help them; so do vendors; and customers usually remain loyal to the leading brands) smaller businesses are on their own. But even though the Brazilian recession has forced thousands of small retailers to shut down, pushed the franchise mortality rate to a record high, and killed off small manufacturers, plenty of entrepreneurs are still smiling and succeeding.

In a partnership with EXAME, Deloitte has mapped the 100 top-growing small and medium businesses in Brazil since 2006. Such companies account for one-third of the country's GDP and employ more than half of its formal workforce: if SMBs are doing well, the country does well. Those companies have seen their revenue increase by an average of 27 percent per year, from 2013 to 2015. Among the top 10, their annual growth varied between 60 percent to almost 180 percent. "In general, smaller businesses have less financial strength to face a crisis; those that succeeded did more with fewer resources," explains Heloisa Helena Montes, Deloitte partner in charge of this survey. This year, Deloitte has split the ranking based on the size of the business. Among those who profited up to US\$30 million, the top growing was Pride, a real estate developer from Paraná: their revenue hiked an average of 176 percent per year, from 2013 to 2015. In the group with revenue from US\$30.6 million to US\$9.2

million, the winner was Hahntel, from Santa Catarina. They assemble production lines to manufacturers and grew 95 percent per year. Another real estate developer, MPD Engenharia, from São Paulo, was the top ranked among the enterprises with revenue from US\$30.6 million to US\$138 million, with a 66 percent annual growth rate.

It seems like a miracle but it's not. According to Deloitte, 75 percent of the businesses with the largest growth rate in the last two years have invested in technology, 83 percent have purchased new machinery and equipment, and 83 percent have launched new products and services. "Attack is the best form of defense," says Júnior Durski, owner of the restaurant chain Madero, ranked 14th: their revenue increased by an average of 55 percent per year, from 2013 to 2015, jumping to US\$52 million. In the next pages you'll find lessons from the small businesses that succeeded during the crisis as we explore the main factors that explain their good results in the last two years.

MUNDO EQUIPAMENTOS

GROWTH: 69 percent INDUSTRY: Equipment to real estate developers REVENUE: US\$3.4 million



Spend little even when things are going well

Cost cutting was one of the main actions

adopted by small and medium businesses to face the current crisis: 88 percent said they set goals to decrease costs in the last two years. But the companies that really made money during this period were those who always had their costs under control, such as Pride, who saw their revenue reach US\$2.5 million.

Established in 2011, Pride sells apartments through Minha Casa, Minha Vida, a government-funded social housing program. Some large developers worked with this program but gave up. Since the margins are tight, only those who can really control their costs and deliver on time to get paid quickly manage to profit.

"We knew that low costs were critical for our survival, so we pay a lot of attention to that," says Leonardo de Souza, one of their owners. He says the company didn't even have an office in the beginning. "We worked in our cars, visiting plots and making phone calls from our mobiles."

Today, Pride has eight employees squeezed into a commercial room in Curitiba. "When everyone is talking on the phone is impossible to hear anything," he says. In addition to controlling their administrative costs, the owners have never disputed to buy a piece of land or hire vendors their motto is to research and bargain. Thanks to that, the average price for a Pride apartment is US\$38,000, whereas their competitors charge US\$44,000.

Another company obsessed with controlling their costs is Mundo Equipamentos – they rent lifts, cranes, and other types of equipment to real estate developers. They grew 69 percent per year between 2013 and 2015. Its five owners are former employees of Ambev, a beverage company famous for their aggressive policies on cost cutting, and have chosen to adjust some of the brewing company practices and adopt them at their new company. They have weekly meetings to discuss the volume of the costs in 13 "cost fronts," such as telephone, printing, and personnel. Each one of these

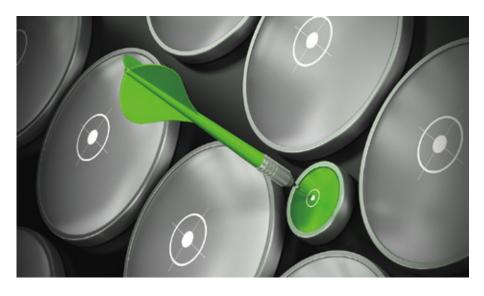
fronts has performance goals and is headed by a professional in charge of making suggestions on how to spend less. One of the suggestions that came out of these fronts was reorganizing logistics. Today, the same group of employees supervises different services such as the assembling and disassembling of equipment and maintenance. In the past the teams were specialized and therefore had to move longer distances between construction sites. With this change, their car fleet shrank from 21 to 11. Another suggestion was to set a maximum amount to be reimbursed for fuel: US\$1.00 per liter. Whoever pays more should bear the difference. "We only pay more if the employee fills the car up with up to 10 liters to get to a cheaper gas station," explains Flávio Esteves, one of the owners. He said that this change decreased fuel costs by 15 percent. Established in 2011, the company is still paying loans its founders took to buy the first pieces of equipment and they haven't profited. They plan on ending 2018 in the black.

NANOVETORES

GROWTH: 175 percent **INDUSTRY:** Biotechnology **REVENUE:** US\$2.8 million

Find market niches with no competitors

A way to continue selling even when the economy is not helping is to work in very specific industries, where you'll find fewer competitors. This is the main feature of Nanovetores, a company specializing in producing capsules of active ingredients mainly used in the cosmetics and textile industries. In 2013, Nanovetores developed, for clothing brand Malwee, a type of fabric that moisturizes the skin and, according to them, also fight cellulite. The company was A way to continue selling even when the economy is not helping is to work in very specific industries, where you'll find fewer competitors.



established in 2009 by Betina Ramos Zanetti, a chemist, and her husband, Ricardo Ramos, a business manager. Betina developed new ways of encapsulating active ingredients, enabling them to be used more effectively in different industries. "It's not easy to sell innovation. Everyone thinks it's cool but few people are willing to pay for it. Our approach is to show you can improve your results," Ramos says. Today, Nanovetores profits US\$2.8 million, sells to 25 countries, and has grown 175 percent per year.

Companies operating in more crowded industries have to work it out. Hahntel, which assembles production lines for manufacturers, nearly doubled its size last year. In 2013, the company mapped the industries that continued investing in automation and created more modern lines for the pharmaceutical industry and luxury automakers. They imported Brazil's first "collaborative robot." Working alongside employees, the robot did things such as tightening bolts and loading and unloading material. To keep this pace, Hahntel will need to find investors and use their capital to import 4,000 of these rental robots by 2020.

"Not every company can afford to spend US\$129,000 for this type of equipment, but can afford to pay US\$2,450 to rent one," explains Joseph Rizzo Hahn Son, the founder.

MADERO

GROWTH: 55 percent INDUSTRY: Food REVENUE: US\$52 million

Seek credit outside banks

One of the most difficult things for small businesses, in any scenario, is to get funds. The situation gets trickier during a recession, when banks — the traditional source of loans — start to lend less and charge much more for them. To try to escape this, a growing number of SMBs have sought alter-

Linx has raised US\$162 million, bought three competitors, and had its revenue increase by 52 percent since December 2013.



A MORE DIFFICULT YEAR

The revenue of the 100 top-growing small and medium businesses in Brazil increased less than in the past, according to a Deloitte survey.

These companies' revenue increased almost 27 percent.1)

(the figures for each year show the average growth in their revenue in the two previous years)



native sources of funding. Those who find them can't complain. In late 2014, the software manufacturer Zenvia sold a minority stake to DLM fund, from São Paulo, and to BNDESPar, BNDES (Brazilian Bank for Economic and Social Development) investment division. They raised US\$21.8 million in this transaction, an amount they would never get from banks at a time interests are increasing. With strength to launch new products, revenue hiked 65 percent to US\$77 million.

Madero restaurant chain issued debt securities. They raised US\$24.5 million and used part of it to build a plant in Ponta Grossa — before that they used to rent three plants. "One advantage is that we don't have to worry about paying interest or the debt before May 2017," says Júnior Durski, the company's founder. They have hired Itaú BBA to sell a minority stake. In order to grow through acquisitions, software manufacturers Linx and Senior Solution

Deloitte survey) Appreciation of U.S. dollar

SMBs FACE



THE BIGGEST OBSTACLES

(percent from the total interviewed for

Raise in clients' delinquency



Increase in the cost of attracting resources



went public in early 2013 — when investors were still interested at new companies at Bovespa (São Paulo Stock Exchange). Linx has raised US\$162 million, bought three competitors and had its revenue increase by 52 percent since December 2013; Senior collected US\$17 million, also bought three companies, and started to make 47 percent more.



SYNDICATION / VIETNAM NEWS

FIRMS FISH FOR STAKE IN THE SAUCE MARKET

The fish sauce market is witnessing increasingly fierce competition among many famous brand names that use both industrial and traditional methods like Unilever, Masan Consumer, Phu Quoc, and Phan Thiet.

By Thien Ly

Vietnamese Food

Seasoning is an essential item on a Vietnam-ese family's dining table, and with demand for it increasing by the day, the industry is growing at 25–32 percent a year, according to Nielsen Vietnam.

Among seasonings, fish sauce is considered to have the greatest potential, with consumption increasing year after year: 15,434 tons in 2005, 75,000 tons in 2016, and an expected 98,770 tons in 2022.

According to a study by Kantar World panel, 95 percent of Vietnamese families use fish sauce in their meals and per capita consumption is around 4 liters a year.

Not surprisingly, more and more players have been entering the market.

The competition first intensified when two major brands, Unilever's Knorr Phu Quoc and Masan Consumer's Chinsu, made an entry. Until then most of the sauces in the market were made in the traditional method and on a small scale. In 2002 Knorr, a German brand owned by the Anglo-Dutch company Unilever, built a bottling plant on Phu Quoc Island and has since been selling Phu Quoc fish sauce made by local producers and bottled on the island under its own Knorr brand.

The brand's entry into the market was backed by a marketing campaign with slick television advertisements inviting Vietnamese consumers to "taste the legend." Unilever was the pioneer in making fish sauce on an industrial production line.

In 2007 Masan Consumer began to sell bottled fish sauce products, soon overtak-

With demand increasing by the day, the sauce industry is growing at 25–32 percent a year.

ing Knorr Phu Quoc to reach the number one position, and the battle of the fish sauces began in earnest.

Masan built a series of large modern fish sauce plants in Binh Duong and Nghe An, and a cellar for giant, wooden barrels containing fermenting anchovies.

Masan's Chinsu and Nam Ngu fish sauces, made on an industrial scale, have rapidly become popular and now account for nearly 70 percent market share, also thanks to the company's big advertising budgets and low prices. Masan has been followed into the market by many other brands also producing industrially. In 2009 the Ngoc Nghia Group, a company that manufactured packaging for food products, decided to enter the fish sauce industry by buying a stake in the Hong Phu Food Joint Stock Company and beginning to produce the Kabin and Thai Long brands of sauce.

Not wanting to be left out, noodles and



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Many of the traditional producers have reverted to selling their pure fish sauce to industrial producers, who then make and sell products under their own brands.

vermicelli giant Acecook entered the market in early 2010 with its De Nhat brand of fish sauce.

The rapid development of industrially produced fish sauces was mostly at the expense of traditionally made products.

According to Euromonitor data, Vietnam's

fish sauce market was worth US\$502 million in 2015, of which industrial production accounted for 76 percent.

Many of the traditional producers have reverted to selling their pure fish sauce to industrial producers, who then make and sell products under their own brands. Le Cam Thuy, deputy director of Cam Van Fish Sauce based in Nha Trang, said the reason the fish sauce market is enticing to investors is the high potential profitability.

"If produced industrially, one liter of pure fish sauce can be made into several liters with an aromatic flavor that consumers will like." Yet, not all entrants have actually managed to make profits.

Ngoc Nghia Company, for instance, has spent considerably on marketing to promote its products and has a 3 percent share of the market. But it also has accumulated losses of nearly US\$35.55 million.

Despite having a massive distribution network and a famous brand name, Acecook was unable to sustain its fish sauce business, and in 2013 had to sell De Nhat to Nam Phuong Viet Nam Company, which renamed it Barona.

Changing tastes

The question is, why have industrially produced fish sauces taken over from traditional ones even though the latter have been successful for centuries?

Many analysts attribute this to consumers' changing tastes.

To answer this guestion in detail, however, we must know the differences between what is in industrial fish sauce and what is in traditional fish sauce. Many people assume traditional fish sauce is made using only fresh fish (mainly anchovy) mixed with salt and put in a traditional wooden barrel, while its industrial cousin has additives. But Pham Ngoc Dung, former chairman of the HCM City Fish Sauce Producers Club, who has 38 years' experience in the industry, said there are no pure fish sauces sold in the market now, though many companies claim so. "Firstly, the price of pure fish sauce is so high that not many consumers can afford them: one ton of fish can give a maximum of 200 liters of pure fish sauce."

Thus, Pham says, the price of pure fish sauce is five to seven times higher than

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sauce processed with additives, and the income of most consumers is still very modest.

Secondly, most fish sauce brands including Phu Quoc, Phan Thiet and Nha Trang — have to use additives to make their products palatable since pure fish sauce is often very rough and salty.

"All fish sauces are produced with fish, salt, and additives, but some are produced in traditional conditions and others in modern industrial conditions," Pham says. Producers must know what chemicals can be used and how much to ensure not only good taste but also consumers' health, because nowadays people pay a lot of attention to eating healthily and are focused on food safety. Bui Huy Nhich, head of Masan Fish Sauce Laboratory, says, "To make good fish sauce, it is very important to have fresh fish, mainly anchovies, since they often give high amino acids. The fish for production at Masan is caught from the sea near the barrel house. To ensure freshness, the fish is salted immediately after being caught."

Before being put into barrels, fresh anchovies must pass through some rigorous checks for other fish, salinity, freshness, and dryness to ensure top quality.

"The salt used for aromatizing the fish is also very important. Masan often uses salt from Ba Ria-Vung Tau Province since it does not have acridity of calcium, bitterness of potassium, or hotness of magnesium."

Invest in technology

Thanks to such rigorous screening, a taste that is not as salty as pure fish sauce, and lower prices than its competition, Masan has quickly conquered the market despite entering later than many others.

Le Thi Nga of the company says, "Masan built the cellar for producing pure fish sauce in 2008, and it can contain 448 barrels with a combined capacity of 10,000 tons of fish.

"This capacity allows it to supply 15 per-



To ensure freshness, the fish is salted immediately after being caught.

cent of the pure fish sauce required for processing Chinsu and Nam Ngu fish sauces sold in the market."

The remainder is bought from major fish sauce production establishments nationwide such as Phu Quoc, Kien Giang, Nha Trang, and Phan Thiet, and that accounts for 60 percent of their output.

"All pure fish sauce Masan buys from other manufacturers is carefully checked with modern equipment before being used for processing for bottled fish sauce."

Faced with the rapid growth in popularity of industrially produced fish sauces, traditional manufacturers have also increased investment in production technologies to improve the quality and polish the image of their products. Lien Thanh Fish Sauce Company, which is more than 100 years old, has spent a considerable amount to modernize its production lines, rebuild distribution networks, and improve packaging.

Vo Van Dai, chairman of Dien Chau Van Phan Fisheries Company, says that "Knowing that many people still prefer pure fish sauces, we continue to produce them.

"However, we combine traditional and advanced methods to produce our fish sauce to ensure quality but also reduce labor and operation costs, making it affordable for many consumers.

"The result is that we are able to achieve annual growth of 20–25 percent, and produce 1.5 million liters now."

Bui Thi Sach, chairwoman of Thanh Phat Fisheries Joint Stock Company, which produces the Nam Phan brand of fish sauce, says, "To ensure product quality, we check four samples of our fish sauce every three months and spend millions to examine each sample."

Le Quoc An, director of Ca Na Nol Fish Sauce Company, says that in addition to regularly improving product quality his company now has to spend double on better packaging to make the company's products more eye-catching and replace plastic bottles with glass bottles to protect the aroma.

As a result, sales have grown by around 20 percent a year.