

OCTOBER 2016

LEO

THE FINANCIAL CENTRE'S MAG

RENMINBI

CONNECTING GLOBAL
INVESTORS WITH CHINA



**BREXIT: BUILDING
GOOD BRIDGES**

**THE EU HUB FOR
INTERNATIONAL
FINANCE**

**LUXEMBOURG:
READY FOR TAKE OFF**

Since our last issue a political earthquake named Brexit has shaken the financial world and its real magnitude will only become known with time. What is clear already now is that the wish expressed by the majority of the people in the United Kingdom to leave the European Union is putting those financial institutions that serve the single market out of London in a difficult situation. They are currently facing an uncertainty as regards the future of their present set-up and, as everybody knows, uncertainty doesn't fit well into the world of financial services. A number of them are actively looking at alternatives for the part of their business that is impacted by the possible loss of their EU passporting ability.

Luxembourg in no way rejoices at the prospect of seeing the UK leave the European Union. As I have said time and again, this is a lose-lose proposition where nobody comes out in a better position. Luxembourg has grown over the last decades also thanks to a strong partnership with London's financial industry. We stand ready today to help our partners in London in this situation and work with them to find solutions that allow them to continue serving their European clients as effectively and seamlessly as possible, whether it is in the asset management industry, the banking sector or in insurance. In Fintech, Luxembourg already today serves as a complementary hub to London allowing many payment institutions and other start-ups to serve customers throughout the single market.



NICOLAS MACKEL,
CEO, LUXEMBOURG
FOR FINANCE

While the articles we feature in the present edition on Luxembourg as an EU hub for banks, asset managers and Fintech start-ups take on a new interest in light of Brexit, they shouldn't be seen as a direct reaction to it as they had been planned while we were still comfortably numbed by the erroneous polls. Thus, honi soit qui Brexity pense! The articles on China which are linked to the upcoming mission were also planned in tempore non suspecto. Indeed, Luxembourg's Finance Minister will lead a delegation of some 90 professionals from the financial industry of Luxembourg to Beijing, Shanghai and Shenzhen in the third week of October. This mission will be honored by the presence of HRH Prince Guillaume, Crown Prince of Luxembourg.

All this goes to underline that, in this turmoil, Luxembourg goes about its normal business as a competitive financial centre in Europe and is obviously open for business. Luxembourg has indeed just been confirmed by the latest edition of the Global Financial centre Index as the

Number 2 financial centre in the EU after London and the number one in the Eurozone. As the story on making your career in Luxembourg illustrates, it is an attractive home to international talent.

Finally, to put some distance between our readers and the above-mentioned down-to-earth considerations, we bring to you the fascinating plans Luxembourg is developing to support space mining. These are grand plans, fitting for a Grand Duchy... As the saying goes, you should always shoot for the moon, even if you fail you will still land among the stars.

Enjoy the read.

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GET IN TOUCH ON TWITTER - @LUXFINANCE

QUALITY OF (BUSINESS) LIFE

LUXEMBOURG IS AMONG THE TOP COUNTRIES FOR QUALITY OF LIFE IN THE OECD'S 2016 BETTER LIFE INDEX. IT RANKS ABOVE AVERAGE FOR THE 10 OUT OF 11 INDICATORS, INCLUDING INCOME, WEALTH, SOCIAL CONNECTIONS, JOBS AND WORK-LIFE BALANCE.

2ND

The 20th Global Financial Centre Index, confirms Luxembourg as the leading financial centre of the Eurozone and the second in the EU after London.

**LUXEMBOURG LAUNCHES FIRST GREEN EXCHANGE IN THE WORLD**

“The green market has enormous potential but this needs to be matched by interest from investors. By setting strict standards for green securities, LGX aims to create an environment where the market can prosper.”

ROBERT SCHARFE, CEO OF THE LUXEMBOURG STOCK EXCHANGE

4TH

Luxembourg City is the 4th best European city to live in, just behind Vilnius, Stockholm and Copenhagen, according to the latest Eurostat study. People living in Luxembourg recorded the highest level of satisfaction in relation to the provision of administrative services.

AXA WEALTH EUROPE OPTS FOR LUXEMBOURG

AXA announced the launch of AXA Wealth Europe in Luxembourg which will provide wealthy and internationally mobile clients with customised life insurance products.

12TH

ACCORDING TO THE LATEST 2016 GLOBAL INNOVATION INDEX, LUXEMBOURG RANKS 3RD IN THE OUTPUTS CATEGORY AND 12TH OVERALL. THE GRAND-DUCHY ALSO COMES IN 2ND FOR CREATIVITY OUTPUTS AND ACHIEVES THE TOP POSITION IN THE COMBINED RATIO FOR INNOVATION EFFICIENCY.

WATCH THE VIDEO AND FIND OUT WHY LUXEMBOURG OFFERS AN IDEAL ENVIRONMENT FOR CLIMATE FINANCE





PIERRE GRAMEGNA,
MINISTER OF FINANCE

BREXIT: BUILDING GOOD BRIDGES

“BREXIT MEANS BREXIT,” WAS THE MESSAGE FROM BRITAIN’S NEW PRIME MINISTER THERESA MAY AFTER THE COUNTRY VOTED TO LEAVE THE EUROPEAN UNION ON JUNE 23, A DECISION THAT IS LIKELY TO HAVE HUGE IMPLICATIONS FOR THE FUTURE OF ALL EUROPEAN COUNTRIES. BUT WHAT DOES BREXIT ACTUALLY MEAN FOR LUXEMBOURG? IN AN INTERVIEW WITH LFF, FINANCE MINISTER PIERRE GRAMEGNA OFFERS HIS VIEWS ON THE OPPORTUNITIES AND CHALLENGES FOLLOWING THE REFERENDUM.

“Both sides are in a “wait and see” mode and will need time to do their homework.”

PIERRE GRAMEGNA

LFF: YOU WERE IN LONDON AT THE END OF JULY WITH MINISTER SCHNEIDER. WHAT WAS THE POST-REFERENDUM ATMOSPHERE LIKE?

PG: Before the referendum, there was a lot of uncertainty for investors and the leave vote has prolonged this for another 2½ years at least. It is going to be a tough time for people in business and government.

LFF: WHAT DO YOU THINK WILL HAPPEN NEXT? WHAT WILL BE THE BEST WAY TO BRING BACK THE NECESSARY STABILITY?

PG: First of all, the UK has to trigger article 50 and we have already heard from the government that this will not happen this year, meaning that formal negotiations will have to remain on hold for another few months.

Although there has been some contact, it has been really informal. Neither the UK, nor the other 27 member states have been able to set out their positions, which will take time because this is the first time a country has chosen to leave the European Union.

It has become clear that the UK had no plan B and the government has explained that it will need a few months to spell out its position. Both sides are in a “wait and see” mode and will need time to do their homework.

LFF: TAKING INTO ACCOUNT THAT WE ARE IN A “WAIT AND SEE” MODE, HOW CAN LUXEMBOURG ASSIST FINANCIAL INSTITUTIONS BASED IN LONDON?

PG: As the negotiations will take at least another 2½ years, it means the UK will still be part of the European Union during this time and we should all make the most of this.

This is not going to be easy, because we don’t know what the final outcome of the negotiations is going to be. However, we do know that those companies in Switzerland, which is outside the EU, have solutions to deal with the fact that they do not have full access to the single market. These often include having a substantial presence in Luxembourg to access the single market. Luxembourg thus acts as a European hub for Swiss banks to serve clients’ needs in wealth management, capital markets, treasury and other financial functions.

The EEA countries, Norway, Lichtenstein and Iceland, have their own ways of dealing with EU market access. In return for access, these countries are obliged to implement all the EU’s laws relating to the internal market. They have participation rights, but no voting rights.

Probably Britain wants to choose a third way. A British solution *sui generis*. After all,

its situation is different to Switzerland and the EEA countries, which have never been members.

LFF: THERE IS A LOT OF TALK ABOUT COMPETITION BETWEEN FINANCIAL CENTRES ON THE CONTINENT TO LURE BUSINESS OUT OF LONDON, YET LUXEMBOURG’S MESSAGES SEEM TO BE MORE ACCOMMODATING THAN OTHER FINANCIAL CENTRES. WHY IS THAT?

PG: First of all, Luxembourg does not want to behave as if the UK had already left the EU. The UK is a partner and we need to take full consideration of that. The financial centre of London is also the main partner for the international financial centre in Luxembourg.

We want to continue that cooperation and even develop it in the future, especially in view of a changing legal framework. Luxembourg’s goal is not to take away business from London, but to find ways and means to keep working together, whatever the framework will be in the future.

On the day the UK leaves the EU, London will still be one of the most important financial centres in the world and there will still be good bridges built between it and Luxembourg.

LFF: LUXEMBOURG HAS BEEN DOING BUSINESS WITH LONDON FOR A LONG TIME. WHAT DO THE TWO FINANCIAL CENTRES HAVE IN COMMON?

PG: London and Luxembourg are truly international financial centres, which are set up to attract investors inside and outside the EU. This is a common feature which is evident in the way both our countries have reacted to different initiatives proposed by the EU Commission to regulate the internal EU market and financial services industry. It has been a concern for both of us that whatever is done within the EU must be compatible with non-EU countries.

“Luxembourg’s goal is not to take away business from London, but to find ways and means to keep working together.”

“The capital markets union will broaden and deepen the EU single market for capitals and it would be an incentive for the UK to maintain close links with the EU.”

In certain business areas, both our financial centres are really complementary. In the field of funds, for example, Luxembourg is the location for international fund administration and distribution. While these funds are often managed in London, it is Luxembourg that has the infrastructure, the accounting, or risk management. This division of labour has served us both well.

We need to keep that complementarity even tomorrow. The way we achieve that will depend on the final result of the negotiations.

LFF: WHAT WILL BE THE MAIN CHALLENGES DURING THE NEGOTIATIONS?

PG: As a finance minister, I tend to focus on things related to financial services, but this is just one of many things.

Other factors include security, free movement of labour and people, British citizens living in the EU, EU citizens residing in the UK, the list goes on ...

For financial services though, the key issue will be whether the UK maintains access to the single market or not. Will there be full access (unlikely), partial access (following

negotiations), or no access at all? It is very hard to see a situation where the 27 remaining member states allow the UK to keep 3 out of the 4 freedoms (goods, services and capital) but have restrictions on the free movement of people. Finding the right balance will be challenging.

LFF: DO YOU THINK MANY BANKS OR ASSET MANAGEMENT COMPANIES ARE LIKELY TO LEAVE LONDON?

PG: London has a large and important financial centre and I don't see that changing. Companies based in London will have to adapt and will probably need to expand their presence in the EU. That does not mean they will leave London though - I see it as an optimisation of their presence on the continent rather than a closing down in London to open up shop somewhere else.

LFF: LUXEMBOURG MIGHT LOSE A MARKET-FRIENDLY ALLY ONCE BRITAIN HAS LEFT THE EU. WHAT ARE YOUR VIEWS ON FUTURE FINANCIAL REGULATION IN THE EU?

PG: We need to stay in close contact with the UK on those issues that are close to both our hearts. I think of all the Directives that are part of the capital markets union, which is one of the key projects to make the EU more competitive in terms of financial services. Fortunately, that project has been put on rails already one year ago by the EU Commission and I am very keen that the CMU will be implemented as quickly as possible. As the UK is part of the EU for at least 2.5 more years, I think a large part of the agenda of the capital markets union will be achieved by then.

If we achieve that, we will then have a very interesting point of discussion. What will happen with these common rules once the UK leaves? The capital markets union will broaden and deepen the EU single market for capitals and it would be an incentive for the UK to maintain close links with the EU.

DID YOU KNOW?

WITH 567 BILLION EUR OF ASSETS UNDER MANAGEMENT, UK FUND PROMOTERS REPRESENT A 16.5% MARKET SHARE OF NET ASSETS UNDER MANAGEMENT IN THE LUXEMBOURG FUND INDUSTRY (THE SECOND LARGEST GROUP AFTER US FUND PROMOTERS).

LFF: INDEPENDENTLY FROM BREXIT, WHERE DO YOU SEE THE STRONGEST GROWTH FOR THE LUXEMBOURG FINANCIAL CENTRE IN THE FUTURE?

PG: The strongest growth will be in FinTech and in the fund industry. Both will continue to grow in a major manner in the next few months and years. The assets under management figures in the fund industry have been growing double digits since 2014.

FinTech is a field where Luxembourg has been present historically with leading e-commerce and e-payment companies and we can build on that. Many FinTech companies are looking at Luxembourg from the outside and also players in Luxembourg are very excited about that sector. That's why the government has decided to launch a Luxembourg House of Financial Technology. I am looking forward to inaugurate the LHoFT next year in spring and even before that there will be some soft-launch events.

LR

LUXEMBOURG: THE EU HUB FOR INTERNATIONAL FINANCE

WITH A MARKET THAT EXTENDS FAR BEYOND ITS BORDERS, LUXEMBOURG HAS BECOME A GLOBAL HUB FOR MAJOR INTERNATIONAL FINANCIAL INSTITUTIONS AND START-UPS LOOKING TO SET UP THEIR PAN-EUROPEAN OPERATIONS AND EXPAND THEIR ACTIVITIES ACROSS THE EU AND BEYOND. THE SWISS GLOBAL BANK, CREDIT SUISSE, GLOBAL ASSET MANAGER, SCHRODERS, PAYMENT SERVICE PROVIDER FOR CROWDFUNDING PLATFORMS AND MARKETPLACES, MANGOPAY AND REG-TECH START-UP, 2GEARS EXPLAIN WHY THEY SELECTED LUXEMBOURG AS THEIR EUROPEAN HUB.

Credit Suisse is among twelve Swiss banks who are present in Luxembourg. Other major banks such as Pictet, Mirabaud, Julius Baer and Lombard Odier also use Luxembourg as their EU hub. The decision to choose Luxembourg as the Swiss banks' European hub evolved over time.

“For Credit Suisse as a group, it is essential to have a hub in Europe to approach clients and markets within the EU. We make use of the EU financial services passport which the regulatory and legal framework provides to the bank, to access the EU single market of 28 countries. We chose Luxembourg as the country to operate out of Switzerland, because of the political stability, the infrastructure and also the high level of professionalism of the people on the market,” explains Yves Maas, CEO and Country Head of Credit Suisse Luxembourg.

The decision to choose Luxembourg as the Swiss bank's European hub evolved over time.

“Luxembourg is the second biggest market worldwide for funds, and plays a large role globally, which led to Credit Suisse establishing

private banking activities in Luxembourg, next to the asset management operations which we already had in Luxembourg,” says Maas from the bank's headquarters in Luxembourg's Kirchberg business district.

“The decision for Luxembourg as a hub was based on already delivered IT investments, as well as on the international franchise that we already have in the country. I think that one of the advantages of Luxembourg in comparison to some of the other platforms we have in Europe is that Luxembourg is an international platform. We also feel that Luxembourg, from a legal and regulatory framework point of view has always been very business friendly to accommodate international groups in Luxembourg,” adds Maas.

LEVERAGING ON THE LUXEMBOURG PLATFORM

Credit Suisse is licensed in Luxembourg to operate across the EU, allowing it to leverage on the Luxembourg platform by working through its branch network. Gilles Dard, Head of Private Banking for Credit Suisse in France, Belgium and Luxembourg explains.

“For Credit Suisse as a group, it is essential to have a hub in Europe to approach clients and markets within the EU.”

YVES MAAS

“The European passport gives us a tremendous amount of flexibility as you don't duplicate the work as you have one regulator, which in our case is Luxembourg, which is the chief regulator to which we report all our activities across the EU. The activity of advising clients, or soliciting business is allowed because of this passport. The branch network itself adds from an efficiency perspective to the entire platform, because we use an integrated platform to book our clients and on the other hand we have a model where we are very close to the clients.”

Luxembourg is a politically stable country, with a very low public debt, a AAA rating and a strongly performing economy. This favourable economic climate is important to the bank's clients, whose assets are all centralised in Luxembourg.

“To be able to provide to HNWI and UHNWI clients the possibility to continue to be serviced as they want to be serviced, i.e., locally, but at the same time have their assets ring-fenced and secure in a hub in Luxembourg gives two benefits. It allows them to have the outstanding local servicing and at the same time the enhanced protection of having their assets in Luxembourg, which is proven to be a very



YVES MAAS,
CEO AND COUNTRY HEAD,
CREDIT SUISSE LUXEMBOURG

GILLES DARD,
HEAD OF PRIVATE BANKING
(FRANCE, BELGIUM, LUXEMBOURG),
CREDIT SUISSE



stable and safe place to have your assets long term. Few banks can offer that,” concludes Dard.

ESTABLISHING GLOBAL OPERATIONS

“Luxembourg is a gateway to the world, and it's the root of our global distribution network” points out Noel Fessey, CEO of Schroder Investment Management Luxembourg. “Our customers come from all over the world, our investment managers come from all over the world, and so it is a global meeting point; that's one of its strengths.”

Fifteen years ago Schroders Luxembourg was principally engaged in support of Schroders' Luxembourg funds and their international distribution network. Today, it is one of the Schroder Group's foremost global operations hubs.

“As we have developed our technology and capabilities over the years, we have become a hub for many things including shareholder services, data management, global sales reporting, revenue and commission management and transfer pricing, and the head office of Schroders' European branch network. We also provide investment risk services to Schroder companies all over the world. As a result, we have gone from being, a mono-line fund management company looking after Luxembourg domiciled funds, into a multi-line international operations business looking after funds and clients all over the world,” says Fessey.

EXPANDING A HUB IN LUXEMBOURG

Assets under management in Schroders' Luxembourg funds total 100 billion EUR, with more than 300 billion EUR of fund assets worldwide benefiting in some way from services provided from Luxembourg. The hub is continuing to develop its range of services and products, not just around investment funds, but core investment products that are the beating heart of every fund.

“We have become core to achieving many of the group's operational objectives, and we are often the source inside the group of technical innovation,” he says. “We are a great source of quality and sustainability, but we don't take it for granted; we have had to compete to earn our place in the Group, in an exacting international market. Our Group could quite easily have made a choice some years ago to outsource the whole thing. That we haven't is a testament to our people in Schroders Luxembourg and to the talent available in Luxembourg and the Grand Region. They have proven that if you choose to pursue a business here you can succeed.”

Schroders now employs 250 staff in Luxembourg, with half the workforce resident in the Grand Duchy and the others commuting to the city from across the border in Belgium, France and Germany.

“We find Luxembourg an excellent place to do business and a good place to find skilled people. We aim to hire at the higher professional lev-

el, for example, accountants, systems analysts, fund operations professionals, and compliance and risk professionals. The market isn't huge but we can find what we need, when we need it. In terms of infrastructure and the general Luxembourg ecosystem, the community of financial firms here is superb. If I have an issue in my company, I can be pretty sure I have colleagues with similar issues in other companies. I can call them and ask how they are dealing with the issue, and they will share their view with me. That degree of co-operation is very common: it's possible to be open in Luxembourg without giving away your commercial privilege, trade secrets or intellectual property. That leads to a stronger overall community and financial centre.”

BRINGING YOUR FINTECH BUSINESS TO LUXEMBOURG

In 2012, the French company Leetchi.com was looking for a jurisdiction to develop its new payment solution for marketplaces, crowdfunding platforms and the sharing economy, called MANGOPAY. They chose Luxembourg.

“We needed to apply for an e-money issuer license and at that time it wasn't available in France, so we decided to look at opportunities in other European countries. We could have chosen Spain, the UK, Belgium or Luxembourg,” explains French national Romain Mazeris. “For us, choosing Luxembourg was the best option, because it has everything we needed: a solid financial regulator, a banking hub where we could develop a strong network of banking partners, and a perfect geographical position in the heart of Europe which is ideal for developing in all the European markets.”

MANGOPAY was vetted by Luxembourg's regulator, the CSSF, in December 2012 and four months later the company was launched.

“Our volume has been growing very fast. We discuss with the CSSF whenever we want to expand to a new country or create a new product. The regulator is very business oriented, and they want us to succeed in our projects.



“Luxembourg is a gateway to the world, and it's the route of our global distribution network.”

NOEL FESSEY

NOEL FESSEY,
CEO, SCHRODER INVESTMENT
MANAGEMENT LUXEMBOURG



“The regulator is very business orientated, and they want us to succeed in our projects.”

ROMAIN MAZERIES

ROMAIN MAZERIES,
CEO, MANGOPAY

What we love about the CSSF is that they are very reactive. As we are a start-up and not an incumbent institution, time to market is critical to us."

INCUBATORS FOR TECH-SAVVY START-UPS

MANGOPAY is based in Lux Future Lab, a start-up co-working space in the city, set up by BGL BNP Paribas in 2012. It provides facilities, resources and services to local and international entrepreneurs. The company's 60 staff are based in Luxembourg, Paris, London and Berlin.

"We settled the financial, compliance and regulatory team in Luxembourg. We originally thought that Luxembourg would be an expensive city to find an office, but from my experience, it is one of the least expensive cities I know for start-ups. We have large offices and it's very well set up in the centre of the city. I think with all the incubators opening up in Luxembourg, if you are a FinTech or a start-up, you will easily find a low-cost office to start your business."

Last year, MANGOPAY was acquired by French bank Crédit Mutuel Arkéa. As part of the agreement, the bank invested 10 million EUR into the parent company the Leetchi Group to foster international growth.

"The acquisition enabled us to convince some of our biggest clients who were previously very interested in our technology, but who had been thinking we were too small to manage the funds. As a result, in France, Rue du Commerce and La Redoute now use MANGOPAY. The bank gives us valuable expertise regarding processes or AML issues."

Today, over 1,200 platforms use MANGOPAY, which processes payment for more than 12 million users in 26 countries in Europe.

"It was a great success and still is a great success, and it was amazing that Luxembourg welcomed us in this way" Mazerier concludes.

2Gears is a Luxembourg-based start-up, which facilitates regulatory compliance in the investment fund sector. The company employs eleven staff and is based at the Luxembourg accelerator Nyuko.

"Luxembourg is the second biggest fund domicile in the world and world leader in cross-border distribution. You have good technical infrastructure in Luxembourg as well, with multiple Tier IV data centres which makes it a good location to host your data." says Bert Boerman, CEO and Co-founder of 2Gears.

EARLY STAGE INVESTMENT OPPORTUNITIES

The start-up, whose solution Governance.io helps investment fund managers and depositaries to deal with their regulatory oversight duties, has received investments from one of the instruments of the public-law banking institution Société nationale de crédit et d'investissement (SNCI).

"In the early stages, it is difficult to convince investors to come into the company. If you are backed by an organisation which is backed by the state and the largest seven banks in Luxembourg, that gives a lot of confidence to other investors who may need that extra little push."

2Gears launched the product in the Luxembourg market in 2015 and shortly after signed up contracts with a number of institutions since launch.

"As a launch market, Luxembourg is perfect, because we have over 1,500 potential clients alone in Luxembourg, so that's a great market to be in. There are so many funds, fund management companies and other professionals around here, and it's extremely compressed. If I would walk down the road and snap pictures of all the name shields, I would probably find 15 potential prospects. Not forgetting that if you do something really well in this leading fund centre, then it becomes very easy to export that to other countries as well; it's like having a certificate of quality like "Made in Luxembourg."


 A man in a blue suit stands in front of a building with a large black archway. The archway features the 'nyuko' logo in white. The man is smiling and has his hands in his pockets. The building has large glass windows and doors.

nyuko

BERT BOERMAN,
CEO AND CO-FOUNDER, 2GEARS

“Luxembourg is great because you can easily go international from here.”

BERT BOERMAN

The start-ups Governance, Risk and Compliance (GRC) solution helps Fund Management Companies, Depositories and Directors to perform their oversight tasks. 2Gears is now benefiting from access to the EU market, as it begins to roll out its solution across Europe.

GOING INTERNATIONAL FROM LUXEMBOURG

“Luxembourg is great because you can easily go international from here. It’s very easy to deal with clients in Frankfurt or Paris, who are just a few hours away. As we continue to expand, it will be easy to set up a subsidiary in Germany or France and other countries underneath the Luxembourg head office. The regulation in these countries is based on the same EU directives, and is 95% the same as what we have in Luxembourg.”

For Dutch national Boerman, locating his business in Luxembourg is also a lifestyle choice because “time is valuable”.

“We always talk about the business side of it, but if you come to Luxembourg as an entrepreneur from, say, London, then you would experience a completely different way of living. Here, in just five minutes from your home or work you can be in the middle of nature. Try to find that somewhere else; it’s very unlikely in any capital city,” Boerman enthuses. *“I live 15 kilometers outside the city, but it takes me less than 20 minutes to get to work, for me that’s a huge value as well. My time is limited as an entrepreneur, so I don’t want to waste it in traffic and standing still,”* he concludes with a smile.

GM

Make your career in Luxembourg's financial industry

LUXEMBOURG HAS MANY FACES: IT IS ONE OF EUROPE'S LEADING FINANCIAL CENTRES, A EUROPEAN UNION CAPITAL AND A COUNTRY IN WHICH ALMOST HALF OF THE POPULATION ARE FOREIGNERS. COMBINED WITH AN EFFICIENT HEALTH AND SOCIAL SECURITY SYSTEM, ATTRACTIVE SALARIES AND OUTSTANDING NATURAL BEAUTY, LUXEMBOURG IS BOTH A VIBRANT AND A PLEASANT PLACE TO LIVE AND WORK.

The Grand Duchy is a favourite with international expats who vote Luxembourg the world's best location for working abroad.¹ Its central location, quality of life and ranking as the safest capital city in the world² help the Grand Duchy to compete for the global pool of talent, ranking third in the world for competitiveness in this area.³

Over the past 50 years, Luxembourg has built a financial industry that is uniquely specialised in cross-border activities, serving corporate and private clients from the EU and beyond, whose financial interests are multi-jurisdictional. The country has developed specific products and services in a variety of sectors, designed to a high degree of complementarity to other financial centres that predominantly serve domestic markets. Global FinTech players and young dynamic start-ups alike find Luxembourg a great base to develop and market their offerings internationally.

¹ INTERNATIONALS EXPAT SURVEY 2016

² MERCER QUALITY OF LIVING SURVEY 2016

³ WEF GLOBAL COMPETITIVENESS INDEX 2015-2016

“Its culture of cooperation makes Luxembourg a great hub.”

KAVITHA RAMACHANDRAN





KAVITHA RAMACHANDRAN,
SENIOR MANAGER, MAITLAND



ROBERT SOMOGYI,
DIRECTOR OF STRATEGIC
INITIATIVES, CLEARSTREAM

“If you want to pursue a career in the financial centre, you will realise that many global players are represented in Luxembourg.”

ROBERT SOMOGYI

Luxembourg is excitingly multicultural: the country's residents come from over 170 countries and nearly half of the population are foreigners. But communication is surprisingly easy since Luxembourg holds the EU record of the most multilingual country: the average number of languages spoken is a staggering 3.6 tongues per person.⁴ The multi-lingual environment makes it easy for companies to attract international talent and helps overseas employees to settle in, make new friends and feel at home.

Not to be underestimated, the tax regime in Luxembourg is very attractive for employees who receive a larger proportion

of their gross pay than in the majority of European countries. The cost of living in Luxembourg is relatively low, ranking at 66th position, which makes it significantly cheaper than major cities in its proximity such as Zurich (2nd), Geneva (4th), Paris (5th), London (6th), Frankfurt (18th), Brussels (38th) and Amsterdam (56th).⁵

For those willing to refine their education, the Luxembourg School of Finance (LSF) offers its flagship MSc in Banking and Finance and recently added a Master in Wealth Management programme. The House of Training, a merger of several training institutes, offers more than 530 dif-

⁴ EUROBAROMETER

⁵ EIU

ferent, partly certified trainings in all sectors of the Luxembourg economy. You have kids? The English International Baccalaureate (IB) can be obtained at a range of public and private schools. The great advantage is pupils' fluency in at least three languages giving them countless options when choosing third level education.

Luxembourg is a competitive country with a successful economy and a stable political system, the secret of its attraction, however, also lies in its location, which gives access to some 60% of the European Union wealth within a 700 km radius. This makes Luxembourg an excellent business base for companies targeting the single market of 500 million European customers.

Most amenities in the city are within a 20-minute drive, including the international airport. At the same time, nature is abundant, well preserved and never far away in Luxembourg.

If all of this has not already awakened your desire to start your career in Luxembourg, read and listen to what international expats have to tell about their Luxembourg experience.

“There is a positive energy which makes Luxembourg a particularly dynamic country.”

JONATHAN PRINCE

HEAR FROM PEOPLE WHO HAVE CHOSEN TO WORK IN EUROPE'S MOST INTERNATIONAL FINANCIAL CENTRE



GISELLE SOLIS,
WEALTH PLANNER, NORDEA

“I saw in Luxembourg an opportunity to access the world through work and people in one place.”

GISELLE SOLIS



JONATHAN PRINCE,
CO-FOUNDER, DIGICASH

WATCH GLOBAL EXPERTS REVEAL
THE LATEST OPPORTUNITIES ARISING FROM
THE INTERNATIONALISATION OF THE RMB.



RENMINBI

LUXEMBOURG ACTS AS CHINA'S GATEWAY TO EUROPE AND IS ONE OF EUROPE'S LEADING CENTRES FOR INTERNATIONAL RMB BUSINESS. IN EACH OF THE ACTIVITY SECTORS INVOLVED IN RENMINBI BUSINESS, LUXEMBOURG CAN CLAIM TO HOLD THE LEADING POSITION IN EUROPE IN TERMS OF VOLUME.

LUXEMBOURG IS ALSO HOME TO SIX MAJOR CHINESE BANKS WHO HAVE CHOSEN TO ESTABLISH THEIR EUROPEAN HUBS IN LUXEMBOURG. BY LEVERAGING THEIR EUROPEAN PASSPORT IN LUXEMBOURG, THESE BANKS CAN SERVICE THE ENTIRE EU, TAKING ADVANTAGE OF LUXEMBOURG'S EFFICIENT AND PROACTIVE REGULATORY AND BUSINESS ENVIRONMENT.

LEADING PLAYERS IN THE WORLD OF FINANCE SHARE THEIR VIEWS ON THE DIFFERENT WAYS OF ACCESSING THE CHINESE FINANCIAL MARKET AND ON CHINESE INVESTORS' OPTIONS FOR INVESTING ABROAD.



EMPOWERING CHINESE INVESTORS ACROSS THE GLOBE

DO YOU KNOW WHAT ASTON VILLA, MANCHESTER CITY, AND ATHLETICO MADRID HAVE IN COMMON? THEY ALL HAVE CHINESE INVESTORS AND OUTRIGHT CHINESE OWNERS. CHINESE OUTBOUND CAPITAL DOESN'T JUST BUY OR INVEST IN EUROPEAN FOOTBALL. IT FLOWS INTO GERMAN HIGH-TECH, ITALIAN CARS, UK ENERGY, AND LUXEMBOURG AIRLINE PROJECTS. SO HOW BEST TO SERVE THESE CHINESE INVESTORS?

Chinese overseas direct investment (ODI) rose to nearly 120 billion USD last year, as the world's second largest economy sought to acquire foreign technologies, expand markets and diversify energy supplies. The biggest acquisition was state-owned ChemChina's purchase of emblematic Italian tiremaker Pirelli.

“The Chinese investor is looking at the potential of the target and the trend we see at the moment is that state-owned enterprises (SOEs) are primarily looking for resource related or high technology projects to help the Chinese economy to upgrade their technologies. Privately owned enterprises, however are more flexible, so for example in June we saw the Chinese electronics retailer Suning Commerce Group Co Ltd buy nearly 70 % of the Italian soccer club Inter Milan for 270 million EUR. This is the highest-profile takeover so far of a Europe-

“For a fund, it's quite easy to get registered here and we experienced that first hand last year when we set up the first Sino-Europe fund in Luxembourg”

TIECHENG YANG



TIECHENG YANG,
HEAD OF CHINA FINANCIAL
REGULATORY TEAM AND
PARTNER OF FINANCE GROUP,
CLIFFORD CHANCE, BEIJING



KATIA PANICHI,
PARTNER,
ELVINGER HOSS PRUSSEN

an team by a Chinese firm,” says TieCheng Yang, Head of China Financial Regulatory Team and Partner of Finance Group, Clifford Chance, Beijing.

CHINESE INVESTOR APPETITE

In Europe, Chinese activity has been strongest in the UK and Germany, but the maturing Chinese investor is now looking further afield. Matt Moran, Corporate Partner at PwC Luxembourg explains.

“The leisure sector is very popular because Chinese investors believe they can bring a captive Chinese tourist market into leisure assets in Europe and elsewhere. We also see the Chinese very active in clean-tech, in environmental, water safety, food safety activities, and chemical businesses. Chinese players are also starting to show interest in the insurance sector here, to set up bases in Europe and get further access to capital, either in Europe or in North America, so the sectors are very broad. For example, we have seen Fosun take over Fidelidade in Portugal, and we have seen Chinese insurance group Angbang acquire Dutch insurer Vivat.”

In 2014, the China Insurance Regulatory Commission (CIRC) changed the investment rules for Chinese insurers, permitting them, subject to approval, to invest up to 15% of their reserves overseas. The acquisition of the Clifford Chance building in London by China Life is one of many so-called “trophy assets” that have been acquired by insurers since the regulations changed.

“It’s more difficult to buy a company than buy an asset like a building, so what you have seen, is the SOE players buying assets, sometimes trophy assets, with strong covenants like the Clifford Chance building in London,” points out Moran. *“I think strategically China, is trying to make sure that there is a diversification in the assets of its insurers because that*

is ultimately going to pay for the welfare of its citizens going forward, so it’s a sensible move by the Chinese authorities to encourage this diversification.”

THE SCHEMES AVAILABLE FOR OVERSEAS INVESTMENTS

China is further loosening capital controls, allowing individuals to invest directly in overseas assets, enabling Chinese individuals to buy overseas stocks, bonds and real estate directly rather than through government-approved mutual funds.

Katia Panichi, Partner at Elvinger Hoss Prussen in Luxembourg outlines which schemes are currently available for overseas investments.

“The QDII is available to Chinese institutional investors, who can invest in foreign financial securities and bonds. The RQDDI, is similar to QDII, but allows investments in overseas financial products denominated in RMB. Then you have the QDIE which is available to mainland Chinese investors and allows them to tap into a wider range of asset classes compared to the QDII scheme. QDLP is available to limited partnerships that invest overseas. For those schemes, you must also have authorisations from the Chinese authorities, but that has changed over the years from a list of positive approvals that the Chinese needed to receive, to a much simpler approval system.”

The big question now is whether capital restrictions will be tightened because of the slowing down of the economy in China and potential knock-on impact on the domestic economy.

“With the markets falling in China, the authorities in China have become a little bit more wary, and they are trying to limit capital outflows by individuals. I think it really depends on how markets are going to evolve.”

My opinion is that they will have to open up slowly and also probably increase the amount of capital individuals can take abroad,” says Katia Panichi.

HOW LUXEMBOURG CAN SERVE OVERSEAS INVESTORS

Luxembourg acts as China’s gateway to Europe and is one of Europe’s leading centres for international RMB business. Subsequently, increasing numbers of Chinese assets managers are choosing Luxembourg as the domicile for their funds in Europe.

“Luxembourg geographically speaking is in the centre of Europe, and politically it is neutral, so it is seen as being friendly to Chinese investors. You can also set up a company and do your reporting and filing in English which is very valuable for Chinese investors,” says Tie Cheng Yang. “Luxembourg is also famous for its investment management industry, so I think a lot of Chinese financial institutions have set up asset management firms or they have set up their European hubs in Luxembourg. For a fund, it’s quite easy to get registered here and we experienced that first hand last year when we set up the first Sino-Europe fund in Luxembourg.”

Luxembourg offers a range of structures to Chinese investors, which are flexible and accommodate the needs of various investors. Katia Panichi explains.

“Luxembourg’s extensive tax treaty network allows us to structure investments in a most efficient way. We have the Soparfi which can be used to do various acquisitions, or you could set up funds. We also have vehicles in Luxembourg that are appropriate for joint ventures. Another way which is less known is bank financing. Luxembourg is actually a very lender friendly environment, and lenders will benefit from a robust regime regarding financial collateral

arrangements which has been tested in court. Last but not least, the Luxembourg Stock Exchange is a means of connecting the Chinese companies to investors to find an alternative way of financing the acquisitions, as well as for general capital working purposes.”

THE ROLE OF THE SIX LARGEST CHINESE BANKS

Building a "green" financial system is one of China’s national strategies and the six largest Chinese banks, who have their continental European hub in Luxembourg, are already targeting environmental sectors in their lending practices. In July, Bank of China listed a pioneering 2.8 billion USD Green Bond programme at the Luxembourg Stock Exchange, further deepening the cultural link to investors and companies from China.

“The six Chinese banks in Luxembourg are becoming more active in providing capital, to both European and Chinese businesses, looking to acquire assets. Over recent quarters we see that these banks are more and more working to source middle market deals in Europe, from their hubs in Luxembourg and around Europe and bring those back to Chinese investors. So the banks act as an access point to deal flow to enable outbound direct investment from China into Europe, and I think they will play an increasingly important role in supporting Chinese investors going forward,” concludes Matt Moran.

GM



MATT MORAN,
CORPORATE PARTNER, PWC

“The six Chinese banks in Luxembourg are becoming more active in providing capital, to both European and Chinese businesses, looking to acquire assets. They are working to source middle market deals in Europe, and bringing those back to Chinese investors.”

MATT MORAN

TONY WANG,
GENERAL MANAGER,
GLOBAL MARKETS,
BANK OF CHINA,
HONG KONG



An investors guide to accessing the Chinese market

OVER THE COURSE OF THE LAST YEARS, CHINA HAS SET UP MULTIPLE CHANNELS TO ATTRACT FOREIGN INVESTORS INTO ITS CAPITAL MARKET. OUT OF THE RANGE OF POTENTIAL ACCESS TOOLS INTO THE CHINESE MARKET - SHANGHAI HK STOCK CONNECT, MUTUAL RECOGNITION, RQFII OR QFII QUOTAS - WHICH CHANNEL SHOULD FOREIGN INVESTORS CHOOSE?

China started to open up its capital markets to the outside world in 2002 by setting up the Qualified Foreign Institutional Investor (QFII) program for international investors. It allows, on a selective basis, global institutional investors to invest in its RMB-denominated capital market.

“The program helps international investors to enjoy the growth of China and also help them to better understand China,” says Tony Wang, General Manager, Global Markets, Bank of China, Hong Kong. “The total quota for QFII is something like 8.5 billion USD, which means that if you have foreign currencies, you can just transfer it to China, open up the account and then convert it into RMB. Then you are free to invest in the Chinese stock market, as well as in the China interbank bond markets. You can also invest in those stock funds or bank funds or mix funds that are approved by the Chinese Securities Regulatory Commission (CSRC) as well as investing in the stock index funds which covers the majority of the capital markets in China.”

In 2011, the Chinese Securities Regulatory Commission (CSRC) further facilitated investment by launching the RQFII program. It aims to widen investment channels for overseas yuan funds on the Chinese mainland, allowing qualified investors to invest yuan-based funds raised in Hong Kong and in other markets in the mainland securities market within a permitted quota.

“The Chinese government officials are trying to make it more open, and user-friendly for international investors and RQFII helps foreigners take advantage of the development of the overseas RMB market,” adds Tony Wang.

THE ROLE OF STOCK CONNECT IN THE INTERNATIONALISATION OF THE RMB

If RQFII and QFII channels are not to your liking, then there is also Stock Connect, a program through which an investor, without CSRC approval, can directly access the Asia market. Evan Goldstein, Managing Director, and Global Head of RMB Solutions, Deutsche Bank, based in Hong Kong explains.

“This is a venture between the Hong Kong Exchange and the Shanghai Stock Exchange, and perhaps later this year, the Shenzhen Exchange, to provide access to specific A Shares. It has a mechanism, a closed loop where a foreign investor, through a Hong Kong broker, can then access directly the A-share market. Now the in-

teresting thing about that is, it has opened up who can access the market on the institutional side, and so hedge funds can also have access to the A-share market, whereas for RQFII and QFII, most would agree that they have less access if at all to this market, so Stock Connect is providing some unique opportunities.”

HOW INVESTORS COMBINE THE USE OF DIFFERENT SCHEMES

The various schemes and channels to invest in China have evolved over time, enabling investors to use multiple access points, thus guaranteeing a certain size of access to the onshore market through the quota scheme.

“If you have a QFII quota as a large institutional investor, guaranteeing you a certain size of the onshore market through the quota scheme, you might consider going for Stock Connect as well because that is a different channel without a specific entry level quota, which gives you some additional flexibility. Also, if you have invested through RQFI, and you have only gone the equity route for example, through the RQFI channel, accessing the Inter-bank bond market through the CIBM access route would allow you to get fixed income exposure without having to worry about eroding your RQFI quota,” adds Evan Goldstein.

Luxembourg investment funds have traditionally been exposed to the Chinese Asian market through the different schemes and channels. Marc-André Bechet, Director Legal

& Tax at the Association of the Luxembourg Fund Industry (ALFI) outlines what combinations are possible for UCTIS funds.

“The two schemes, Stock Connect and RQFII, are typically used in parallel by UCITS funds because they are different in the way they operate. Asset managers like to have the flexibility of using one and the other scheme depending on market conditions. While other funds, like alternative investment funds, are more likely to use the QFII schemes which give access to other kinds of asset classes. QFII has been used in the past by asset managers, but it does not fit into the UCITS world, even though we have recently seen changes in February which could open the door to a greater use of QFII. These changes will eliminate the need for licence holders to seek individual approval for investment quotas and the granting of an initial quota of up to 5 billion USD and no less than 200 million USD. This will give asset managers more freedom to access China’s markets.”

HOW WILL MUTUAL RECOGNITION FIT INTO THE RANGE OF SCHEMES

The Mutual Recognition of Funds (MRF) scheme has made steady progress since the first approvals were granted in December 2015. It opens a new channel for foreign asset-management firms to tap household savings of about 8 trillion USD. This enables Chinese asset-management firms to sell their products to offshore investors while giving their foreign counterparts direct access to the Chinese market.

“Mutual recognition is a scheme which provides for funds between Hong Kong and mainland China to be sold on a cross-border basis. It’s a one by one approval of funds by local regulators and entirely different to the UCTIS round which is a scheme which provides for a very prescriptive environment for European funds. Mutual Recognition will eventually en-



MARC-ANDRÉ BECHET,
DIRECTOR LEGAL & TAX, ALFI

able investors to benefit from greater access to other types of funds. In parallel UCITS will continue to be distributed in Hong Kong and Asian countries, and we hope that eventually, UCITS will get access to the mainland Chinese market,” says Marc-André Bechet.

ADVANTAGES OF SETTING UP RQFII IN LUXEMBOURG

Since the launch of the RQFII scheme in 2011, asset managers have used this channel to the Chinese bond and equity markets in the structuring of their products to offer direct China exposure to their clients. Luxembourg was the first European jurisdiction to authorise the use of an RQFII quota in the context of a UCITS fund back in

2013. Two years later, the People’s Bank of China granted Luxembourg a 50 billion RMB RQFII quota.

“Luxembourg has a very long history of fund management and it has a very deep talent pool whereby a fund manager and an institution can access the ancillary services required to access the China market. It also has a depth of legal and accounting expertise that is used to dealing with the Chinese market. Having said that, I think that what is most important is the familiarity with the onshore market whether it is in equities or fixed income,” says Evan Goldstein. *“The fact that the RQFII scheme has been awarded to Luxembourg is not only testament to the relationship between Luxembourg and China, but also a recognition of the*



EVAN GOLDSTEIN,
MANAGING DIRECTOR, AND GLOBAL
HEAD OF RMB SOLUTIONS, DEUTSCHE
BANK, HONG KONG

amount of knowledge accumulated, which a new fund or an existing fund can tap into and benefit from when accessing the market for the first time or considering issuing new funds.”

Luxembourg UCITS are marketed in up to 70 different countries, so setting up a UCITS which invests in China and Asia through RQFII gives access to not only an asset class but to an investor base which is extremely large and beneficial regarding distribution.

“Luxembourg RQFII quota means that international investors who are based in Luxembourg will develop a real interest and understanding of that market,” says Tony Wang. “I think it will further help to strengthen the financial cooperation between China and Luxembourg and also it can help the development of Luxembourg as a major financial centre. In the past, Luxembourg has served more to the international investor rather than the Chinese investors but now you can see more and more Dim Sum Bonds or Chinese bonds issued by Chinese corporates listed in Luxembourg. This helps the Chinese corporates or issuers to do international financing, and I believe after you create the exposure to the Chinese assets then there will be a natural demand for the derivative instruments to hedge the risk of the RMB assets, then they will further diversify or enrich the product portfolio in Luxembourg and China.”

GM

CONNECTING GLOBAL INVESTORS WITH CHINA

FIND OUT WHY LUXEMBOURG IS A LEADING
INTERNATIONAL RENMINBI HUB

MAIN GLOBAL DOMICILE OF INVESTMENT FUNDS INVESTING INTO MAINLAND CHINA

Luxembourg funds account for:

23% of global assets

68% of European assets invested
in Mainland China

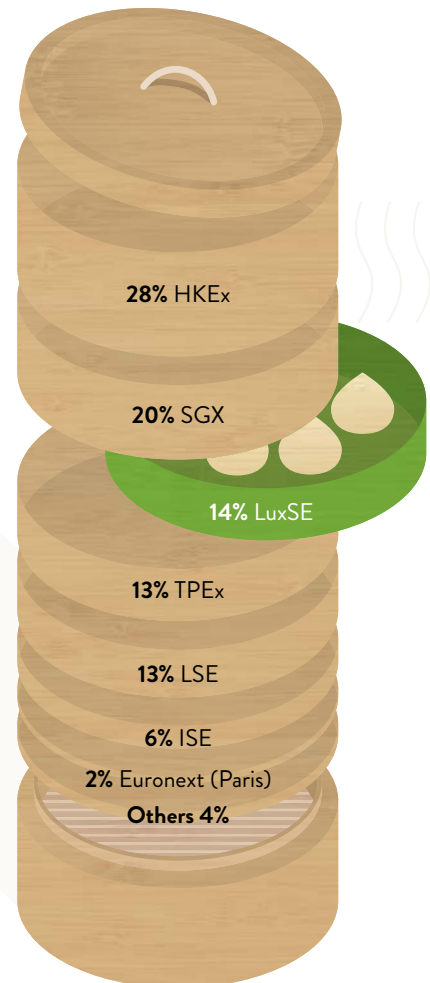
CHINA'S GATEWAY TO EUROPE

6 Chinese banks are using their
Luxembourg hub for cross-border
RMB activities throughout Europe

LARGEST LISTING CENTRE FOR
DIM SUM BONDS OUTSIDE ASIA

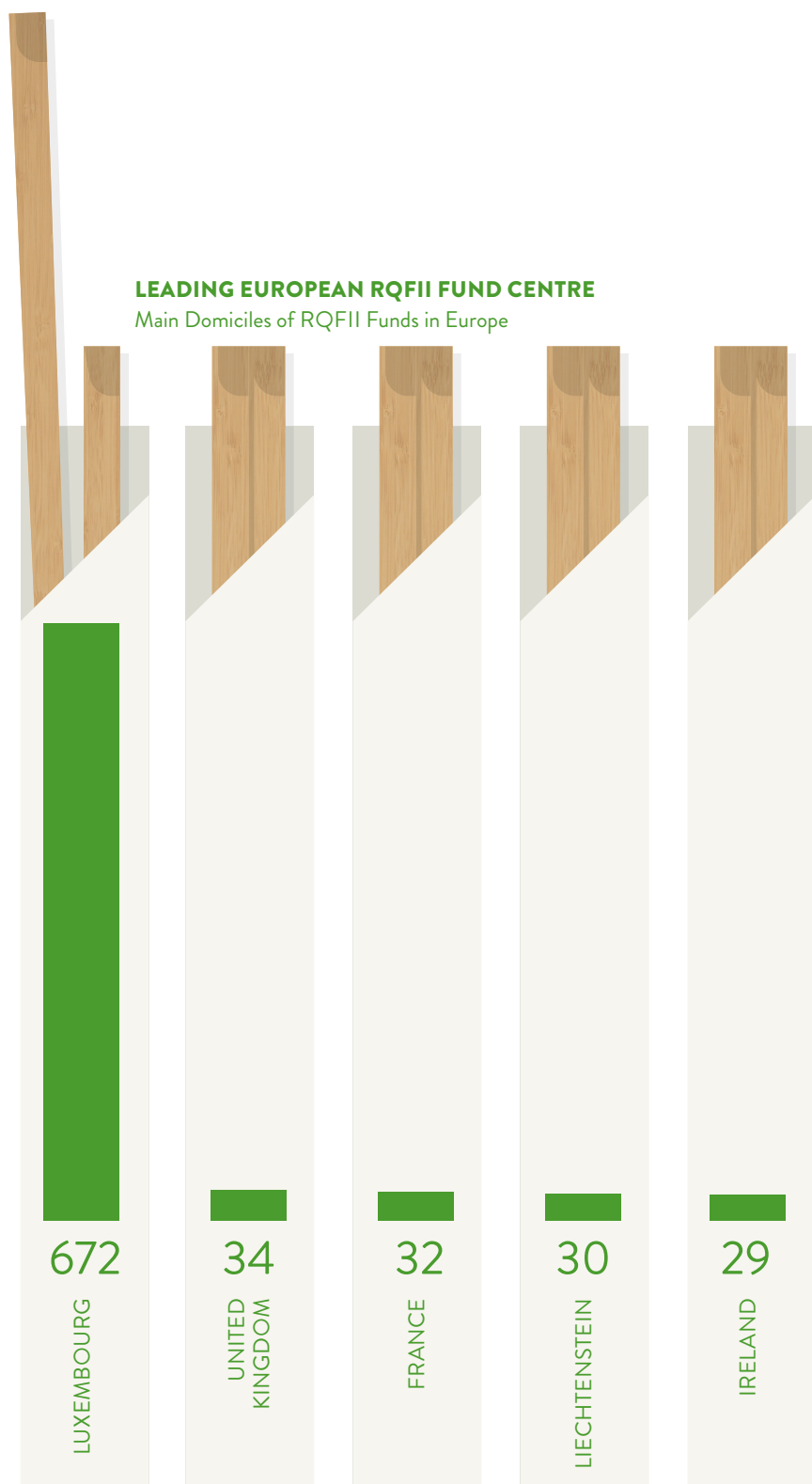
The number of Dim Sum bonds listed on Luxembourg
Stock Exchange has almost tripled in less than four years.

GLOBAL MARKET SHARE IN DIM SUM BONDS (Primary Listing Venues July 2016)



LEADING EUROPEAN RQFII FUND CENTRE

Main Domiciles of RQFII Funds in Europe



RMB PIONEER

2011:

Volkswagen launched first European RMB denominated bond at LuxSE

2013:

Luxembourg regulator authorities first RQFII UCITS fund

2014:

- British Columbia issues first foreign government RMB bond - listing at LuxSE
- CSSF confirms acceptance of investments into CIBM as fulfilling requirements of UCITS for regulated markets
- Listing of first RMB bond by a Mainland China company in the Eurozone on LuxSE (BoC's "Schengen" Bond)
- Designation of ICBC as RMB clearing bank in Luxembourg
- CSSF authorises first Luxembourg UCITS to trade through Shanghai-Hong Kong Stock Connect for regulated markets

2015:

- 50bn RMB RQFII quota granted to Luxembourg
- First global use of CIPS for yuan clearing transaction from China to Luxembourg



FREDERIC BAKER,
COO, DEEP SPACE
INDUSTRIES EUROPE

LUXEMBOURG: READY FOR TAKE OFF

EARLIER THIS YEAR, THE LUXEMBOURG GOVERNMENT ANNOUNCED GROUNDBREAKING PLANS TO DEVELOP THE UTILISATION OF SPACE RESOURCES, SUCH AS THE MINING OF ASTEROIDS OR OTHER CELESTIAL BODIES. AS PART OF THIS, THE GRAND DUCHY AIMS TO BECOME THE FIRST EUROPEAN COUNTRY TO SET OUT A FORMAL LEGAL FRAMEWORK, WHICH ENSURES THAT PRIVATE OPERATORS WORKING IN SPACE CAN BE CONFIDENT ABOUT THEIR RIGHTS TO THE RESOURCES THEY EXTRACT.

LUXEMBOURG ALSO ENTERED INTO PARTNERSHIPS WITH TWO LEADING AMERICAN COMPANIES, PLANETARY RESOURCES AND DEEP SPACE INDUSTRIES. ALTHOUGH BOTH COMPANIES WERE ONLY CREATED A FEW YEARS AGO, THEIR FOUNDERS AND PARTNERS HAVE BEEN WORKING ON UNIQUE SPACE PROJECTS AND THE TECHNOLOGY NEEDED FOR ASTEROID MINING FOR SEVERAL DECADES.

THE BIG IDEA

“Asteroid mining is not what people think,” says Chris Lewicki, President and CEO of Planetary Resources, the former flight director of the Spirit and Opportunity Mars exploration rovers, who also landed the Phoenix Mars lander. “It is not about bringing stuff back to Earth. It is about being able to use the resources and materials in space when we get there.”

“Imagine that you need to travel somewhere, but there are no gas stations along the way and you have to bring all the fuel you need with you. In outer space, the problem is even worse. We have not been able to reach Mars yet because we are trapped at the bottom of Earth’s gravity well which is so deep that escaping the first 300 km takes more energy than the next 300 million kilometres.”

According to Planetary Resources, it takes 50 kg of propellant to deliver just 1 kg to the Low Earth Orbit (LEO). Just 4 kg more would get you the next 35,000 km, and the next 2 kg would give you the last 300 million kilometres to anywhere in the solar

system. But those 4 additional kg’s to the Geostationary orbit each need 50 kg to get to LEO first, and these two to anywhere else, each need 4 kg, which each need 50...

Fortunately, mining asteroids can provide a fuel source 1,000 times more efficient than the ‘bring-everything-with-you’ approach. Rockets work most efficiently on hydrogen and oxygen, which is just electrolysed water and which exists in infinite quantities on asteroids.

“If we fly out of the gravity well and can source in space for space we can avoid this exponential problem,” adds Lewicki. “If we don’t figure out how to do this, we will be on planet Earth for the rest of our days. And I would like to think we can do more than that.”

WHY ASTEROIDS?

When people think of asteroids, they often think of objects deep in space and in faraway places like Mars and Jupiter. However, over the past 30 years, scientists have discovered more than 14,000 asteroids near

“The country boasts a vibrant high-tech industry, making it the perfect place to ‘push the envelope’ in the commercial space sector.”

FREDERIC BAKER

Earth. They orbit the Sun just like the Earth does, but do not have gravity, unlike the Moon. When Neil Armstrong landed on the Moon in 1969, he needed again a big rocket to climb out the Moon's gravity, a problem you do not get with asteroids.

"With an asteroid you can come and go very easily. Once you get into orbit, asteroids are the next easiest place to go. They are easier to reach than the Moon, even if the Moon is right there. You could compare it with standing at the base of Everest. You can go 1 km up the mountain, 1 km down the valley or 1 km across the valley. It's the same distance, but very different challenges. That is the difference between the Moon and asteroids," explains Lewicki.

GRAVITATING TOWARDS LUXEMBOURG

What attracts companies such as Planetary Resources and Deep Space Industries to come to Luxembourg?

"Luxembourg has a great track record with exciting and progressive projects" says Frederic Baker, COO of Deep Space Industries Europe. *"Most people know the country for its finance sector, but Luxembourg also has a deep background in space. The country boasts a vibrant high-tech industry, making it the perfect place to 'push the envelope' in the commercial space sector."*

Both Planetary Resources and Deep Space Industries are in the process of hiring staff and are set to tap into the pool of talented workers available in Luxembourg.

"There is a great breadth and depth of talent, knowledge and business acumen in Luxembourg," adds Baker. *"We are actively seeking to hire several engineers and business professionals in the area and are excited by the top-level talent we have encountered so far."*

Chris Lewicki says he was attracted to the Grand Duchy by the story of SES, the satellite services provider, which the Luxembourg government has helped nurture.



"It's not a matter of if, but when space mining will happen."

MATHIAS LINK

MATHIAS LINK,
POLICY OFFICER FOR SPACE
AFFAIRS AT THE LUXEMBOURG
MINISTRY OF ECONOMY

"We are used to it today, but in the 80s it was a very bold thing for Luxembourg to do. People did not use satellites in those days and did not broadcast media the same way. We see a lot of opportunity in Luxembourg and in Europe; there is a lot of research and development here, in addition to what we do in the U.S."

Mathias Link, Policy Officer for Space Affairs at the Luxembourg Ministry of Economy, says Luxembourg has a rich history when it comes to space activities.

"The space industry in Luxembourg has existed for more than 30 years and is highly diversified. We are active in the ground segment, but also in the actual systems and technologies flying in space, as well as in downstream services. We became an ESA member state in 2005 and our sector has rapidly evolved since then. Even if the SpaceResources.lu initiative sounds more futuristic and long-term, it is fully in line with the policy we have been following for many years."

About 4 years ago, the Luxembourg government initiated the first contacts on the subject with the NASA Ames Centre in Silicon Valley.

"Since our announcement earlier this year, we have been contacted by a large number of companies that are very interested in the project and ask how they can participate in the initiative" continues Link.

Luxembourg's intention is to create an overall framework for space resource utilisation activities that is attractive to entrepreneurs and investors. The intention is not to run large publicly funded projects.

Frederic Baker says this framework is important for his company. *"The recent political developments (with the passing of the Space Act in the US and upcoming legislation in Luxembourg and elsewhere) has provided Deep Space Industries with a solid regulatory framework allowing us to move forward with confidence."*

PROSPECTOR X

Luxembourg is Deep Space Industries' partner on an upcoming spacecraft program called Prospector X. The Prospector-X spacecraft will be built in Luxembourg where Deep Space Industries' new European headquarters are.

"Prospector-X will be launched into Low Earth Orbit in 2017 to test asteroid mining technologies, such as our water-based propulsion system, deep space avionics, and the optical navigation system that is being developed jointly with the University of Luxembourg's SnT. Some of these key enabling technologies will be instrumental to the success of first deep space resource exploration missions in the near future" explains Baker.

NOT ONLY IN SPACE

Although both companies have an ambitious long-term vision to develop their resources for mining asteroids, they are also developing technology that can be used in other areas.

"The same sensors that we use on an asteroid can also detect the water cycle in agriculture, natural resource management," explains Lewicki.

"What is interesting is that both companies don't only have the long-term vision of asteroid mining, but they also have plans in the very short and mid-term to generate revenue. That is exactly what we want to see and the type of companies we wish to attract," adds Link.

While Planetary Resources' short - and mid-term is in the area of Earth observation – Deep Space is developing technology for the small satellite market, including technologies that can be integrated into the increasingly popular CubeSat platform, a type of miniaturized satellite that is being used more and more for space research.

MAKING OFF-EARTH MINING A REALITY

"Many of the biggest challenges, such as developing good partners, raising initial funding, and developing a productive regulatory conversation internationally, are already behind us" explains Baker.

There are, however, many challenges on the horizon. These include technological, geological, financing, regulatory, and market risks. The greatest market risks are inherent to the infrastructure needed to make use of space resources. This is why Deep Space Industries is actively developing a portfolio of technologies, such as water-based thrusters. These and other Deep Space Industries technologies have proven markets and uses now, and will be resupplied by space resources in the future. This strategy is instrumental to the company's 'ecosystem' approach to catalysing the development of a significant market for future asteroid-derived products and services.

"We have an audacious mission, but we have many practical steps along the way toward that vision. Our ability to generate revenue serving

near-term very large global markets that you can only do from space is a very attractive prospect" adds Lewicki. *"We are still raising private investment. In a lot of cases we are not doing anything new. We provide information and insight about the risk of a particular project. Just as the traditional mining industry looks at what project to invest in next, our target happens to be in space."*

Asteroid mining is part of "New Space", which is mainly driven by start-ups of Silicon Valley. Companies – even those that are not specialised in asteroid mining – notice that Luxembourg is a country with a growing influence in this area.

"Right now it's rather difficult for a normal venture capital fund to invest in something as long-term as space mining," concludes Link. *"Their strategy is more on the short- or mid-term. But we are totally convinced that the interest will increase. It's not a matter of if, but when space mining will happen. While the investment opportunities are currently still limited, we see that the appetite is growing. In the next years, more will come up."*

LR



CHRIS LEWICKI,
PRESIDENT AND CEO,
PLANETARY RESOURCES

"If we don't figure out how to do this, we will be on planet earth for the rest of our days. And I would like to think we can do more than that."

CHRIS LEWICKI

UPCOMING EVENTS

2016 **25-28.10** **LUXEMBOURG, CHINA'S PARTNER IN EUROPE**



Luxembourg for Finance will organise a mission to China, headed by HRH Prince Guillaume, Crown Prince of Luxembourg, and led by HE Pierre Gramegna, Minister of Finance of the Grand Duchy of Luxembourg.

Seminars will be held in Beijing (25 October 2016) Shanghai (27 October 2016) and Shenzhen (28 October 2016).

Join our seminars in China where key experts will present cross-border solutions for Chinese investors and asset managers.

2016 **01.12** **PARIS 2016**

Luxembourg for Finance will be back in Paris with representatives from across Luxembourg's financial centre. The group led by HE Pierre Gramegna will take part in a seminar which will give insights into all aspects of the Luxembourg financial centre with a particular focus on how Climate Finance is set to develop further to the COP21 agreement. As a leading international financial centre, Luxembourg offers the right environment with the tools and expertise to finance innovative projects to fight climate change and mitigate its effects.



2016 **14-18.11** **19TH EURO FINANCE WEEK**

Luxembourg for Finance will be present at the 19th Euro Finance Week in Frankfurt/Main. As country of honour, Luxembourg will host a "Luxembourg Forum" on the opening day, 14 November 2016 in the presence of HE Pierre Gramegna. Topics covered will range from the Capital Markets Union to implications of the digital age for the financial industry.

LFF will also showcase the Luxembourg financial centre with a booth.

Coming soon

2017 **12.02** **DUBAI**

Luxembourg for Finance will head to Dubai with a financial delegation led by HE Pierre Gramegna. Be part of our delegation and showcase Luxembourg's know-how in Islamic finance.

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EVENTS PROGRAMME.



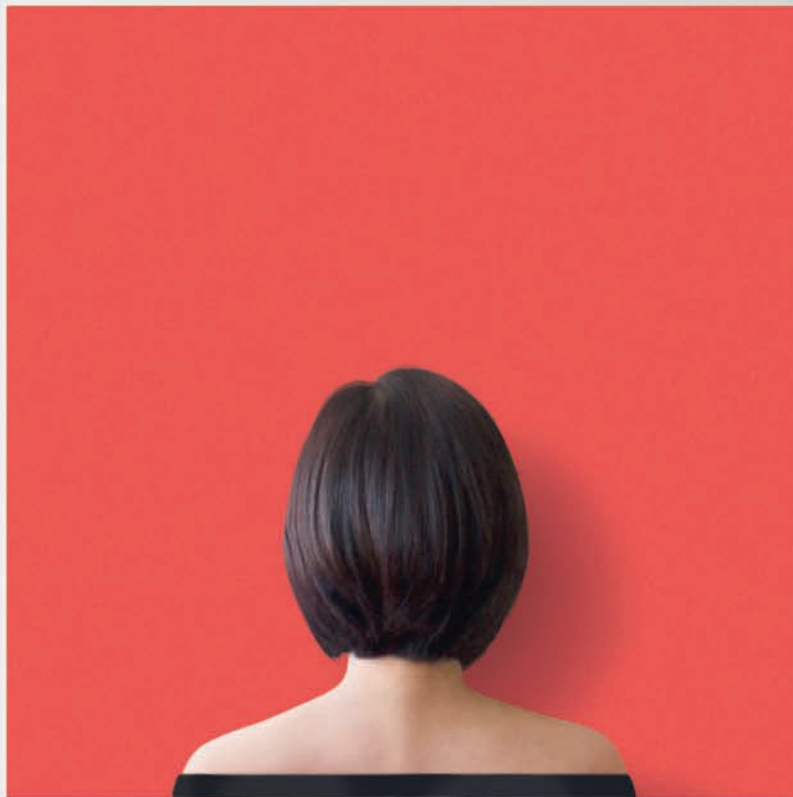
IMPRESSUM

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**THE NEXT EDITION OF LEO, THE FINANCIAL CENTRE'S MAG WILL BE PUBLISHED
IN DECEMBER 2016 WITH A SPECIAL FOCUS ON CLIMATE FINANCE.**

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