Financing innovation in the developing world

Securitisation of IP rights can be a way to help innovators in the developing world access capital. Innovation can further be promoted by innovating finanicial services themselves

By **Roya Ghafele**

Financing innovation remains a challenging undertaking. While it is not only a societal aspiration, but also an economic requirement, the necessary financial products and institutions to provide the much-needed funding to turn valuable ideas into marketable assets are insufficiently developed. This holds even more true in developing countries, where innovators face the twin challenges of managing the risks associated with doing something different and being unable to tap in a wide range of institutional investors because capital markets are insufficiently developed. Institutional shortcomings may thus be considered a major stumbling block for innovation to occur in the developing world.

One way to overcome this challenge may be to securitise the IP of developing-country innovators and pool it into a bond jointly with IP from developed countries' innovators – an approach that draws upon the idea of IP syndication, as for example expressed in a pending US process patent application, filed by Ms Grota and currently undertaken by Deutsche Bank. Rather than exporting investment to the developing world, the developed world's IP is to be imported to the US and securitised under predictable and functioning market mechanisms. The dividends resulting from the securitisation could then be leveraged to turn ideas into marketable innovations in a developing country. Crucial is the rating, which turns the IP into an instrument Wall Street can work with. An IP exchange can further support the activities of the broker in identifying the IP.

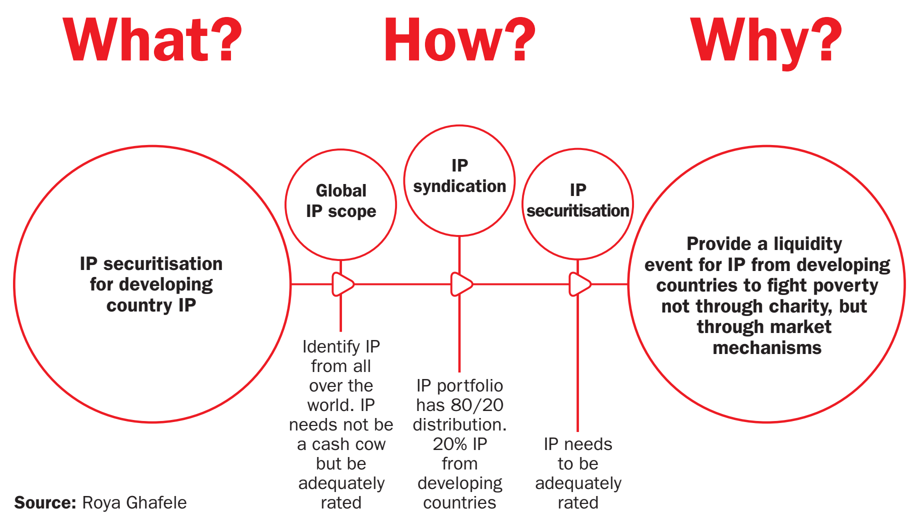
Here is the challenge

Academics such as Tarun Chordia, Lakshmanan Shivakumar and Avanhidar Subrahmanyam have shown in "Liquidity Dynamics Across Small and Large Firms" – an Economic Note prepared in 2004 for the "Banca Monte dei Paschi di Siena" – that liquidity dynamics vary not only by firm size and industry (eg, the services-driven industry finds it harder to access capital than the goods-producing industry), but also by geographical and political context. Innovative firms in mid to low-income countries face significantly more difficulties in getting over the funding hurdle than their counterparts in the developed world.

While in theory an innovator can tap into different sources of funding – be they risk capital, different forms of loan, government grants, tax exemptions or loans provided by intergovernmental development agencies – the choice in developing countries is substantially reduced due to a lack of functioning capital markets at the national level and severe scepticism from international investors. Private equity markets, for example, are virtually absent in most developing countries. Where they are present, they are usually rudimentary. Indeed, according to the OECD, venture capital is concentrated around just five hubs: the US, the UK, Canada, Korea and Israel.

Commercial banks do exist in developing countries. However, they focus on investments that provide lower rates of return (on average around 7%). As a consequence, late-stage firms rather than early-stage companies get funded. Banks offer financial instruments for companies that can already offer some historical evidence of revenue flows. To finance innovation, many banks lack in-house competence and business models that would allow them to grasp the value of IP. This is true in much of the developed world and is

Blueprint for financing the developing world through IP



Source: Roya Ghafele

even more the case in developing countries. This situation may mean that many good ideas are sitting gathering dust.

Turning foreign direct investment upside down

The key to resolving the innovation funding dilemma may be to leverage existing financial instruments and marry them with the concept of intellectual property. If this is to happen, however, a new view of intellectual property – one that is rooted more in the concept of an emerging asset class rather than of IP being a legal right – is required. While the outrage of the anti-globalisation movement is essentially rooted in the latter (ie, patents allegedly increasing the costs of urgently needed medicine, existing IP preventing developing countries from leveraging innovation developed elsewhere), viewing IP as an emerging asset class based on the creative and innovative potential of all the people of the world may change views and bring IP much closer to the aspiration of truly global innovation conducted in an equitable way.

Many developing countries are increasingly reluctant to be modelled as little more than passive receivers of IP developed elsewhere and actively seek to develop IP-based economies on their own. At the same time, IP viewed as an emerging asset class, rather than as a mere legal mechanism, gives range to a wide spectrum of market mechanisms that could foster innovation and allow it to flourish.

Seen in a proactive, inclusive way, IP can become the currency of the innovation economy. IP makes innovation explicit, ascribes ownership rights and in this way allows for engagement in commercial undertakings underpinned by work that has taken place outside the public domain. Essentially, IP determines the way in which knowledge relations are governed and structured. Like any other asset, IP opens up a variety of transactional options, such as: sale; trade; in or out-licensing; purchase or donation. In this sense the value of IP is determined by four factors:

- The strength and depth of the underlying jurisdiction.
- The capacity of the regulator to assure the implementation of the law.
- The quality of the knowledge system that is to be protected.
- The managerial capacity to maximise IP potential.

From this perspective, developing functioning IP systems around the world becomes a dire need – not to make multinational companies even richer, but to allow innovators wherever they are located to leverage IP as a commercial vehicle.

IP securitisation for dummies

In "IP Backed Securitisation: Blueprint for a New Asset Class", David Edwards describes an asset-backed securitisation as: "A device of structure financing where an entity seeks to pool together its interest in identifiable cash flows over time, transfer the same to investors either with or without the support of further collaterals and thereby achieve the purpose of financing."

The most well-known IP-backed securitisation was the so-called Bowie Bond structured in the late 1990s. Since then, capital markets have increasingly used this mechanism to provide off-book financing for companies owning IP, so generating sustainable cash flows. Strictly speaking, what is secured is not the IP, but the underlying cash flows associated with a specific form of IP. For example, Dunkin Donuts and Domino Pizza leveraged their licensing generating trademarks in a securitisation. Single IP securitisations of single companies are increasingly popular on Wall Street, and while they may do little to help solve the financing gap in developing countries, deals like these have at least helped to establish some sort of IP awareness, a concept still considered esoteric in the financial community.

A securitisation can be a much-needed liquidity event for a company. A securitisation does not generate cash, but simply exchanges the cash flows for an immediate lump sum of cash and transforms an illiquid debt into a security. According to Jeff Leung, in the article "Patent Securitization, Patently Bad Idea?", which published in 2006: "A securitization packages cash flows for higher priced uses at a cost lower than the incremental value added". This means that otherwise unmarketable assets move from a firm's balance sheet in exchange for a long term loan. Through a securitisation, IP assets can be converted into bonds and the proceeds of their market issuance become a long term loan for the assets' owner. The end result of a securitisation is financing, not borrowing money, but selling a stream of cash flows that would otherwise accrue to it. An asset securitisation is the conversion of assets or cash flows into marketable securities. Therefore a securitisation is very different from primary market securitisation, where the borrowing of new capital is the goal. Here, a liquidity event is created for existing assets.

In a securitisation a company pools the right to receive certain future payments and sells that right, called the receivables. The originator, the company that owns the securities, pools the receivables and transfers them to an SPV, a special purpose vehicle, a bankruptcy-remote vehicle, which is created for the sole purpose of the IP-backed securitisation. The SPV issues a debt security pursuant to which security holders receive a fixed payment based on the anticipated cash flow of the receivables and secured by such receivables. The SPV is a pass-through and a pay-through entity.

Because in an IP-based securitisation the assets are sold by the originator to an SPV, the asset transfer can be considered a true sale. The SPV funds the purchase through issuing debt securities, which are collateralised by the IP assets. Rating agencies then rate the pool of IP assets held by the SPV rather than the underlying company. Higher-rated securities are considered more reliable investments and thus are allowed to pay lower interest rates, thus reducing the global cost to acquire funds.

The challenge of demystifying intellectual property securities

Intellectual property securitisation, an investment tool to capitalise on IP by selling expected future income in return for immediate cash, is on its way. Securitisations of trademarks owned by firms such as KCD IP (SEARS), Dominos Pizza and Dunkin Donuts have provided companies with liquidity events of US$1.8 billion and beyond. But despite this silent revolution in the way IP-rich companies are attracting funding, much of the media coverage of these transactions gives rise to the question: to what extent was the IP part of the deals generally understood?

"The New Alchemies at Sears", stated the *Business Week* headline above its coverage of that company's billion-dollar plus brand securitisation which took place during the spring of 2007. In the same way, J Bizouati says in his article "From Donuts to Dollars", written about the US$1.7 billion securitisation of Dunkin's Brands in 2006 for *Investment Dealers' Digest*, "that the esoteric component of the deal is the intellectual property". Further press articles on the issue primarily revolve around fundamental definitions and preliminary overviews – frequently these pieces express surprise at the nature of the deal and always contain a reference to the increasing importance of the knowledge-based economy, as well as a mention of the Bowie Bonds issued in the late 1990s.

Words such as "alchemy" or "esoteric" are associated with the domain of magic, mystery and other unexplainable phenomena beyond the power of human beings, and clearly stand in strong contrast to rational decision making on how to maximise revenues from all of a company's assets. This is not to discredit any of these journals, articles or authors; on the contrary, they have done a great job in explaining how financing innovation may be improved by innovating financial markets themselves. Yet if property rights are defined as a social construct, it looks like there is a long way to go before the informed investment community can recognise IP for what it is: an emerging asset class.

Intellectual property is a property right over a creative and innovative expression and, like any other form of property right, allows the owner to engage in entrepreneurial activities. This helps to make knowledge economically functional and managerially controllable.

To investors looking for long-term returns, IP is increasingly appealing. "While most assets currently under management are 10 years or under, the useful life of a patent may be 12 years, that of trademarks indefinite, renewable every 10 years, copyright roughly a century and trade secrets indefinite," says Cameron Gray of IP merchant banc Ocean Tomo. Under these premises, IP allows for investors to hedge against risk while giving creators – be they in design (copyright or design rights), branding (trademarks), technology (patents) or the performing arts (related rights) – the opportunity to turn a new idea or invention into an innovation and engage in a multitude of commercial interactions, just as other kinds of property rights do. This falls squarely within the paradigms developed on entrepreneurship and innovation by key scholars such as F Knight or J Schumpeter, as early as the 1940s.

Clearly, accounting has not been of help so far. Each IP-backed securitisation is considered "off-book financing", reflecting accounting's ambiguous approach to intellectual property. For example, internally generated and acquired IP is treated differently in statutory company accounts, so the same IP can appear in the books as being worth a fortune or nothing at all. According to US GAAP, acquired IP is valued at its acquisition cost and subsequently amortised over a maximum period of 40 years, while exactly the same type of IP will appear as an immediate expense if internally generated. Other inconsistencies relate to the concept of goodwill, which before the introduction of IFAS 141 and 142 was the only way to talk about IP on the balance sheet. Yet goodwill describes IP in residual terms, which is the price a market player is ready to pay in excess of the value of a firm's tangible assets. Because goodwill is such a vague term, encompassing anything that justifies a higher price for a company, it is very difficult to compare the goodwill of different companies, let alone explicitly state the value added of IP.

But the reasons why IP has not been financially leveraged to its full extent go deeper than problems around accounting. Instead, the lack of awareness of IP as an emerging asset class reveals the blind spot of a primarily modernist, engineering-driven investment culture. One would think that the Black Scholes model, a Nobel Prize-winning concept for valuing IP as an option, would lend sufficient credibility to the valuation of intellectual property and make the challenge of overcoming the innovator's funding dilemma an issue primarily of interest to historians. Clearly, what is needed is more than mathematics. Instead, we need an investment culture that deals with IP in the same natural way as it does with machinery and other tangible stuff.

In the long run, approaches to financing innovation, such as IP-backed securitisations, can be found by providing interdisciplinary training on IP at universities, so to build up future executives that look at IP from the business, legal and technical perspective. But even in the short term, there is no need to call for Merlin the magician to do the alchemy. Being serious about ensuring diversity in the workforce, promoting employees to turn fresh ideas into practice and hiring not only lawyers to deal with IP may well do the job.

If, for example, the cost of capital is Libor plus 150 basic points, the rating would be BB.

IP-backed securitisation from the developing world's perspective

Innovators in developing countries have few options to raise money. An IP-backed securitisation may be a relatively inexpensive way for at least some of them to change this state of affairs. More than just promising the potential to lower the costs of capital, an IP securitisation can make the otherwise inaccessible capital necessary for innovation available by allowing firms that are not investment gradable companies to access capital directly through the market. A securitisation increases their liquidity instantly as future income would be immediately available; it would also enable the originator to produce securities with a high credit rating at a low interest rate. This transformation would also allow entities to recognise immediately the value of these assets.

For those providing the funds, these types of deal could provide significantly higher yields and would give them the opportunity to act as socially responsible investors, while at the same time taking educated risks. The built-in mechanisms of a securitisation allow risks typically associated with developing countries to be significantly reduced. The originator completely transfers the risk of non-payment of the securitised asset to the SPV, which shifts the focus from the financially precarious firm to the SPV. By the same token, rating agencies do not rate the underlying companies, but only the assets pooled in the SPV, which may provide more adequate credit ratings.

The decoupling of the IP from the underlying businesses diminishes risks associated with the corporation itself. Rather than having to buy into an entire corporation and fully grasp its business model so to assess risk, the investor only speculates in a specific niche of technology or other form of innovation. The decoupling of the IP assets from their original market and firm-specific context also makes these assets much easier to grasp and more accessible to investors. Ultimately, it provides them with a wider range of investment choices – which is yet another way to spread the risk.

Overcoming potential weaknesses in the model

A successful IP securitisation depends on the spread, quality and accurate assessment of its underlying assets. But levels of IP awareness are low and methods for valuing IP are not yet standardised. While a range of methods for rating IP do exist and are applied in day-to-day business, none has so far been recognised by a government agency.

Although it may not seem intuitively correct, the best IP for a securitisation is not the best rated IP (ie, AAA), but the most accurately rated IP. Say a Chinese IP portfolio gets correctly rated as triple DDD; this still allows financial markets to trade (ie, call/put options, junk bonds etc). For that matter, it is not important if the value of a patent portfolio typically follows a 10/90 distribution, meaning that the value of the portfolio is primarily driven by the top 10%, whereas 90% of the portfolio does not generate direct cash flows. As long as that situation gets properly reflected through a rating it can form the basis of financial activities.

An adequate due diligence – evaluating the legal, technical and commercial side of IP – is costly, particularly because rating agencies and appraisers do not have a long history in this field. Major weaknesses could evolve, therefore, around the management of costs: agency costs; information costs; transaction costs; and costs associated with educating buyers and sellers (after all, the concept is not new only to major investment banks, but also to borrowing firms). The absence of adequately developed insurance products for IP accentuates the situation.

Opportunities

Capital markets thrive on innovation and are willing to exploit even the smallest potential growth increments, even more so if it can help rebalance prevailing asymmetries. All investment banks are looking for the next big thing. Even if investors have only an incremental benefit over alternatives, this type of financial instrument stands a strong chance of success.

At the same time, concerns about inequities at the global level increasingly form part of the discourse of major banks. Looking at the recruitment material of JP Morgan Chase & Co, for example, a significant part is spent on the firm's efforts to help fight poverty. However, so far this has not been linked to the bank's business model, but is rather an activity on the side. IP-backed securitisation may offer a win-win situation and fill the gaps that public institutions can not address, provided there is a willingness to explore more sophisticated asset classes than credit cards and auto receivables.

The US sub-prime mortgage crisis has shown that there is a dire need for adequate ratings and in-depth due diligence. For the time being, significant costs are involved in providing both and a deal below US$100 million will probably not attract much attention. IP securitisation calls for the role of brokerage to scope the IP and to ensure that the liquidity created for developing countries' IP is correctly made available to innovators in developing countries.

Leaving IP unleveraged is counterproductive. While private sector initiatives may well help to advance the internationalisation of innovation, government initiatives or tax benefits for IP-based brokerage may well help to bring the concept to a more widely successful level. In the US the Gini Mae initiative helped to make housing available to a large range of the population. What is needed now is some sort of organisation that takes a similar role for the creation of the knowledge-based economy.

Perhaps an international taskforce can help to foster IP-backed innovation at the worldwide level: not only for the benefit of developing country innovators and the satisfaction of doing good, but for the sake of

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innovation itself. Without a truly wide range of creativity embedded in the most diverse cultural settings, the project of innovation in itself is doomed to fail.

A step towards global equity

The most unexpected asset classes have served as a basis for asset-backed securitisations. Swiss Re California's earthquake bonds or Hollywood's movie exchange clearly shows that there is no limitation for emerging asset classes, no matter how awkward they may seem at first sight. The biggest challenge is not to securitise IP, but to overcome inertia and the overall lack of awareness of IP as a driving business factor. A study recently conducted by the Said School of Business at the University of Oxford showed that 75% of British companies lack IP awareness. Clearly, the survey would have delivered different results if the firms had observed liquidity from their IP.

Is it not a major challenge for responsible citizens and corporations to ensure that innovation succeeds in counteracting prevailing gaps rather than widening them? The universal declaration of human rights considers equal access to property rights a fundamental human right. By the same token, authors such as Hernando de Soto have repeatedly stressed the fact that fully developed property rights are necessary in order to foster capital markets in the developing world. Leveraging IP-backed securities as a tool to promote equitable innovation means not only realising the goals of inclusion and equitable access to resources, as expressed in the universal declaration of human rights, but also financing global innovation by bringing innovation to the financial sector itself.

Clearly, an IP-backed securitisation is just one way to enable innovators around the world to access funding. But surely it is worth exploring as a means to demonstrate that IP is not a hindrance to global development and instead can be a powerful tool to counteract existing imbalances between developing and developed countries.