

## **Patents Pending**

**Insurers no longer enjoy open season on the product innovations of competitors.**

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Imitation no longer is the sincerest form of flattery in the insurance industry. For as long as anyone can remember, carriers have felt free to copy the competition's breakthrough products. But that timeworn approach to saving on product-development costs is turning riskier as growing numbers of innovators seize a competitive advantage by patenting their discoveries.

This development has been fueled by a landmark federal appeals court ruling in 1998, *State Street Bank vs. Signature Financial Group*, which gave the green light to the patenting of business methods. For insurers, this meant that patent protection could extend to new insurance products, and even improvements on existing products. It also meant that competitors could face a patent-infringement case if they tried to market copies of the original.

"One of the natural consequences of that opening up of the world of business methods to patents was that people in the financial community--including in the insurance world--have jumped in, and they've jumped in with both feet," said Steven J. Henry, a shareholder in Wolf, Greenfield & Sacks P.C. and counsel to Signature Financial in the historic case. "We now see insurance companies filing patent applications on insurance contracts and on methods of risk management, methods of underwriting, valuing and so forth."

"It's a growing trend in our industry," agreed Phil Hargrove, vice president of intellectual asset management at General Electric Co.'s Employers Reinsurance Corp. "If you look at the growth in filings on a pure percentage basis, insurance is one of the fastest-growing segments of the patent process. Taking lessons from other industries, the fact that so many patents in insurance are still sitting in a pending status means I don't think we've really seen the brunt of this yet."

From 1996 to 2002, more than 140 U.S. business method patents were issued in insurance--compared with 18 in the preceding four years, said actuary Tom Bakos, president of Tom Bakos Consulting Inc. And from 2001 to the end of 2002 alone, more than 160 insurance patents were applied for, he added.

While many of these patent applications involve new processes in underwriting, collections, claims and risk evaluation, some others cover insurance products themselves. In the latter category, MassMutual Financial Group and Prudential Retirement Inc. are marketing two new products under the heading of "patent pending."

### ***Protecting a Fast Seller***

Massachusetts Mutual Life Insurance Co. applied for a patent for its VUL Guard in May 2003, around the same time it launched this product on the market. Since then, VUL Guard has become one of the fastest-selling new products the company ever has offered and has stabilized the fall in variable universal life sales that MassMutual has experienced since the bear market, the company said.

VUL Guard, described as a "permanent" variable universal life insurance product, provides a no-lapse guaranteed death benefit by investing a minimum required amount in a fixed bucket that

works like a universal life policy. MassMutual sees this new kind of variable life policy as the "next generation of life insurance."

Craig Waddington, vice president and actuary, life product development at MassMutual Financial Group, the marketing designation for parent Massachusetts Mutual, said VUL Guard's uniqueness lies in its combination of guarantees and potential for growth in cash value.

"We really wanted to protect our investment in this product," Waddington said, explaining why MassMutual is pursuing this patent. "You can view this as either offense or defense. The offense is you won't let anybody else copy your product. But there's also a defensive strategy--you don't want someone else to copy yours and then patent it and lock you out of the market, too."

MassMutual continually reviews products and services to determine whether or not it should submit them for patents, Waddington said. "We have a number of patent applications pending, and we plan to file others in the future," he said.

### ***Fortifying a Bridge***

Prudential Retirement, a business of Prudential Financial Inc., has only one patent pending, and this is for its Income Bridge Approach that maximizes Social Security payments to retirees. Basically, it uses defined-contribution or IRA assets to bridge to a higher initial Social Security amount, enabling retirees to benefit from higher cost-of-living increases throughout retirement.

"This is as much a process as it is a product," said Scott Sleyster, executive vice president of the full-service defined-contribution and defined-benefit business of Prudential Retirement. The product in this case is a period-certain annuity that provides steadily increasing income from the day of retirement to the day that Social Security payments start to arrive. Customers select the comprehensive income strategy they prefer, based on scenarios generated by newly developed, proprietary software.

Income Bridge Approach relies on the tendency of many people to take Social Security payments as soon as they are available at age 62 or the traditional age 65, well before the system's maximum payout date of age 70. "In a lot of cases, people haven't really thought hard about the benefits of delaying Social Security or, in fact, the cost in taxes of taking Social Security early and continuing to work, because if you earn enough money, you end up making most of your Social Security income taxable," Sleyster said. "So you can really sub optimize, particularly if you don't need the money right away. If you stay in Social Security for each year that passes up to age 70, you get a delay effect. The longer you wait to take Social Security, then your future adjustments are based on a higher dollar amount."

The difference in annual payments can be significant, Sleyster noted. For example, someone at age 62 who might qualify for \$1,000 a month in Social Security payments would receive an initial benefit of \$12,000 a year. But a person who waits until 65 and 10 months--the federal government's full retirement age--would receive \$17,292 a year. And if the recipient could wait until age 70, the return would be an annual \$26,300, Sleyster said.

"What we've done is created an opportunity for people to use a product to bridge that gap," Sleyster said. "For each period you delay, you get a delay bonus. If you don't desperately need

the money, and if you expect that you or your spouse is likely to be long-lived, delaying the Social Security can be really quite beneficial."

The product, which has been introduced to retirees in defined-contribution plans serviced by Prudential Retirement, also is to be rolled out to the retail market, he said.

This is the first time that Prudential Retirement has applied for a patent for one of its products. In fact, the company is concerned that there may be too much patenting going on, Sleyster said. "Two or three times a year people are in here showing us something where they claim there's been a patent of some type," he said. "In some cases, we look at what people are patenting and it doesn't seem that unique to us."

But Prudential became convinced that Income Bridge Approach, which was developed within the company, was one of a kind. "The product development team decided to go talk to a patent attorney, both internally and then externally, to see if what they thought we were doing here was, in fact, unique enough to warrant a patent," Sleyster said. "And the message that came back was that it was."

Since the application process wasn't cumbersome or too costly, the company opted to pursue a patent, Sleyster said. Prudential employees spent about 75 hours on the filing process before obtaining patent-pending status in February 2004. The company won't disclose its expenses in undertaking the project.

### ***Patent Professionals and Product Labs***

It's common for insurers contemplating a patent application to turn to patent attorneys or consultants for guidance. One such expert, Mark Nowotarski, had been a research engineer and scientist at Praxair Inc., a Union Carbide spin-off. During his years there, he obtained 17 patents in the fields of food, electronics and automobile manufacturing, and he became enthusiastic about the entire patent process.

Nowotarski earned his patent agent license and now is president of Markets, Patents & Alliances L.L.C., Stamford, Conn., an intellectual-property consulting firm specializing in patents for business methods. He established his firm in October 2001 and is affiliated with Bakos. Nowotarski regularly files patent applications on behalf of his clients, which include some major insurance companies as well as many independent inventors of new types of insurance products.

In fact, insurance patents are creating a new wave of start-up companies that Nowotarski describes as "insurance development labs," which are inventing and patenting new types of insurance products in response to changing market needs. These labs are responsible for such recently patented and patent pending products as terrorism insurance, 401(k) disability insurance and reversionary annuities, he said. The labs will license their inventions to major carriers, often on an exclusive basis, Nowotarski said.

Very large companies, such as American International Group Inc., GE ERC and Swiss Re, have begun filing for patents and have seen some issued, Nowotarski said. "But those are still the vast minority of patents that have been filed or issued in this whole insurance area," he said. "By our studies, 70% of these patent applications are filed by very small, entrepreneurial start-ups or independent inventors. These are the people who intend to license their patents."

## ***The Road to Patenting***

Obtaining a business-method or product patent can be a long, drawn-out process. In GE ERC's experience, it has taken four to five years from the application's filing to issuance, Hargrove said.

Typically, an inventor will start the process by enlisting the aid of a patent agent or patent attorney. After the inventor describes the product, the agent then drafts a patent application that includes a lengthy description of what the invention is and how it is used. The application also must include a set of numbered sentences called claims, each one describing to what the patent owner has rights.

"They're very difficult to read, very difficult to interpret, but these claims are the real teeth of the patent--if you do what's in the claims, you're infringing that patent," Nowotarski said. "And if the inventor is aware of anything out there that discloses certain features of their invention, he is obligated to tell the patent office about them before his patent issues."

Once the patent application is filed, an examiner at the United States Patent and Trademark Office reads it and performs a search to see whether there's anything else that may indicate duplication. Armed with those results, the examiner either accepts the draft claims or rejects them, telling the patent agent why.

"They're almost always rejected the first time around. That's just the way it goes," Nowotarski said. In the next stage, the patent agent and the inventor respond to the rejection. If they succeed in modifying the claims to make them acceptable to the examiner, the patent is allowed and is issued. "One problem is the huge backlog of applications, particularly in the business-method area, at the U.S. Patent Office," he said. "So it's taking many years to get through." As applicants wait for approval, they can list their inventions as "patent pending."

Nowotarski's interest in insurance patents arose from a chance meeting with an insurance executive who complained that his company would spend considerable time developing a new product, only to find that competitors quickly would copy the original. "I said to him, 'Why don't you patent it?' And he really had no idea that you could protect a new insurance product with a patent," Nowotarski said.

He's not alone. Many in the insurance industry still haven't grasped this concept, Nowotarski added. "Either they give it away or they keep it proprietary," he said of new insurance products and processes. "They're not aware they have this tool and availability."

The patenting message has been slow in getting out, Henry agreed. "There definitely is interest in some quarters, but others don't even know," he said. "They're into wait-and-see-what-happens. Unfortunately, they will be the victims. They will be cut out of market share and they won't have something to trade." In other industries, many patent disputes result in a trade of some sort, such as an exchange of licenses.

Some leading-edge companies already have established patent programs, however, and are investing significant resources in them, "so they anticipate a big benefit from this," he said.

With all the opportunity that patents may promise, there also is a down side: Insurers can be found to have infringed on another carrier's patent, even if it's unintentional and the company has no knowledge that it's doing so. "They can still get sued for infringement and are liable for the

greater of either the patent owners' lost profits, which is difficult to prove, or reasonable royalty," Nowotarski said. "Lawyers spend a lot of time figuring out what this means, but essentially it's what the patent owner could have licensed that technology for, based on the norms of the industry."

Nowotarski, who thinks that insurance patents already are having a profound impact on the industry, expects them to stimulate even more innovation. He's trying to stay ahead of that curve by attending regular meetings of risk managers and noting their concerns. "Whenever anyone talks about problems that no one seems to be able to solve, it tells me that somebody is probably out there trying to solve them, and we may very well see patent applications in that area," he said.

Henry predicts greater differentiation of insurance products, now that a carrier can develop a product and keep it to itself as is true in other industries. "The potential of this is for a great change in some insurance marketplaces where insurance contracts were very much cookie-cutter items, and competition was based principally on premium costs and, to a degree, the solvency of the company," he said.

In Waddington's view, the increase in insurance patents is bound to make the insurance market "a lot more complicated, which may not be a good thing," he said. While the introduction of a greater number of innovative products could aid consumers, it also could reduce competition for a particular product, and prices could rise. "It's a tough one--I struggle with whether patenting is good for the industry or not," he said.

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