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1,000,000 New Patents

By Anne Kim, Ed Gerwin, and Ryan McConaghy

For entrepreneurs who hope to launch the next Google or for start-ups in search of venture capital, earning a patent can spell the difference between getting off the ground and failure. But thousands of potential new American patents—and with them, thousands of potential new jobs—are being blocked by bureaucratic delays. As many as 1.2 million patent applications are languishing at the federal Patent and Trademark Office (USPTO) due to persistent underfunding and staff shortages. The average patent approval process now takes almost three years. A one-time shot in the arm for USPTO of \$500 million can help clear the backlog and launch a new generation of new American businesses.

THE PROBLEM

Backlogs at the federal patent office are stifling job growth.

American entrepreneurs and inventors continue to explore new ideas, even in tough economic times. Although patent filings dipped slightly last year, the 485,500 applications filed in FY 2009 still represent an 18.5% increase from FY 2005.¹

But a growing number of applications are getting bogged down at the patent office, at the cost of new American jobs.

The patent backlog is at a near-historic high.

More than 1.2 million patent applications are sitting in the backlog at USPTO—up from just under 415,000 pending applications ten years ago and more than five times the number of applications pending in FY 1989.²

Not only are more patents waiting to be approved, the approval process itself is also longer. In FY 2009, applications had an average total pendency

(time between application and disposal) of almost three years, an increase of almost 19% from FY 2005.³

Fewer patents means fewer jobs.

The patent backlog is an enormous brake on American job growth. As patent pendency rates climb, it becomes more difficult for job-creating small businesses and start-ups to attract investors. More than 75% of start-up managers report that venture capitalists consider patents when making investment decisions, and whether a business owns a patent can affect whether it attracts investors.⁴

The backlog also undermines a patent's fundamental purpose—protection against theft. USPTO publishes applications 18 months after filing, despite the fact that processing can take three years or more and that the inventor gets no legal protection in the interim. What this means is that an inventor's work is vulnerable to piracy during the "patent pending" period.⁵

As a result, the patent backlog imposes immense economic costs. An extra year of delay in patent processing by the so-called Trilateral Offices (USPTO, the European Patent Office, and the Japanese Patent Office) results in related global economic losses of an estimated \$11.5 billion per year.⁶ On the flip side, a single U.S. patent approval can increase a business's value by \$1 million or more.⁷ Recently, USPTO Director David Kappos expressed concern that by short-circuiting innovation and growth, the patent backlog may be preventing the creation of millions of jobs.⁸

Global competition to patent new innovations is fierce, and the U.S. needs to keep up.

American inventors are also waiting longer for their patents than their Chinese or Indian counterparts, which means Chinese and Indian inventors are getting a head start in the global innovation race.

Pending applications at USPTO constitute more than one-quarter of the global backlog of 4.2 million applications, and the backlog in the United States is growing faster than in other countries.⁹ While pendency rates at USPTO are comparable or better to those in the European Patent Office or the Patent Office of Japan, they far exceed the 15-month wait at the Patent Office of the Republic of Korea¹⁰ or the 25.8 month wait at China's State Intellectual Property Office.¹¹ From 1996 to 2007, USPTO approval rates grew by just 4.2%, compared to a 23.6% growth in approvals for Indian patents and a 32.9% growth in the approval rate in China.¹²

THE SOLUTION

A one-time infusion of \$500 million for the USPTO

The current backlog is largely the result of staff shortages at the USPTO and chronic underfunding. To unclog the backlog at the patent office, Third Way proposes an immediate one-time infusion of \$500 million to the USPTO. This money would help the USPTO fix the manpower shortage that has led to approval delays.

New funding would prop up USPTO's strained budget.

Between FY 1992 and FY 2004, Congress diverted 6.7% of USPTO's fees,* depriving the agency of \$573 million in fees from patent applications and \$168 million in fees from trademark filings.¹³ USPTO's financial standing was further damaged in FY 2009, when fee collections fell \$135.9 million short of the agency's \$2.01 billion budget projection.¹⁴ As a result, USPTO is currently facing a \$200 million budget shortfall and a hiring freeze.¹⁵

However, the FY 2010 spending levels set by Congress will do little to address this shortfall. The FY 2010 budget for USPTO has been set at \$1.887 billion, providing virtually no increase from FY 2009 fee collection levels.¹⁶ The situation was exacerbated at the end of last year when Congress declined to include a provision in the FY 2010 budget that would have allowed the USPTO to make use of an additional \$100 million in fee revenues.¹⁷ While fee collections are expected to recover, USPTO will nonetheless lack the resources to address the patent backlog.¹⁸ Additional funding can compensate for these budget reductions and help the agency cope with the backlog.

Expanding the examiner corps will speed up patent processing.

A \$500 million infusion of funding can help the USPTO make a serious commitment to expanding and strengthening its examiner corps. According to one study, if USPTO had used \$503 million of the funds that were diverted from its budget between FY 1992 and FY 2004, it would have been able to consistently hire more examiners, reduce total pendency by five months, and process 416,203 more applications.¹⁹ While the USPTO has announced a goal of

* Unlike most government agencies, which are funded through Congressional appropriations, operations at the USPTO are funded by collecting user fees from customers in relation to the processing of applications, patent maintenance, and other activities. However, the amount of the USPTO budget is still determined by budget authority caps put in place as part of the appropriations process. In years when USPTO's fee collections exceed the budget authority provided in the appropriations process, the additional fee revenue may be diverted to support other government programs. For more information on the USPTO funding system, please consult Wendy H. Schacht, "U.S. Patent and Trademark Office Appropriations Process: A Brief Explanation," RS20906, Congressional Research Service, May 27, 2009, available at http://www.ipmall.fplc.edu/hosted_resources/crs/RS20906_090527.pdf.

hiring 1,000 new examiners in FY 2011 and FY 2012,²⁰ the lack of funding may make these benchmarks difficult to meet.

Moreover, patent examiners historically have some of the highest turnover rates of any government employees. Between FY 1992 and FY 2004, five examiners left for every ten that were hired. In two of those years, the examiner corps experienced net losses in their ranks.²¹ Last year the office added fewer than 600 examiners for a net addition of only 80.²²

New patents means new jobs.

More money for more examiners and more patents will ultimately allow the United States to create jobs, increase its exports and buoy the economy.

Patent-protected intellectual property directly fuels economic growth in high impact industries like pharmaceuticals, information technology, communications equipment, semiconductors, and medical devices. Over half of our nation's exports depend on intellectual property protection, up from less than 10% 50 years ago.²³ Experts estimate that three-quarters of the nation's post-World War II growth rate has been driven by technological advances.²⁴

Patents also play a significant role in creating high-paying jobs and personal wealth. States with businesses and individuals that hold an above-average number of patents may have as much as a 3% higher per capita personal income.²⁵ Internationally, 75% of the differences in income among countries can be attributed to innovation-related factors.²⁶

All told, America's intellectual property is worth more than \$5 trillion, and innovation-intensive industries employ more than 18 million people.²⁷ Needless delays at the patent office should not block America's ability to compete in an increasingly competitive global environment. A well-funded and smoothly functioning patent office can ensure that America maximizes its chief assets—the innovation and creativity of its people and businesses.

THE ROLLOUT

Ideas for launching and publicizing \$500 million for the USPTO

- **Hold a press conference** with a local business that relies on patents for growth.
- **Hold a press conference** with an inventor or small business facing delays in obtaining a patent.
- **Release a report** detailing the impacts of the patent backlog on the local economy.

CRITIQUES & RESPONSES

\$500 million for the USPTO

It's too expensive.

Providing \$500 million in supplemental funding to start clearing away the patent backlog is one of the most cost-effective actions government can take to create jobs and boost the recovery. By restoring a significant portion of what Congress has previously diverted from USPTO finances, it will be possible to provide small businesses and innovators with the support and patent protection they need to unlock billions of dollars in potential innovation and growth.

Hasn't this already been proposed in the President's budget request or as part of patent reform proposals?

The President's FY 2011 budget increases funding for the USPTO to approximately \$2.3 billion, including a 15% surcharge on certain applications that will provide resources to reduce the backlog and speed up the patent process.²⁸ This surcharge is expected to raise an additional \$224 million to help the USPTO deal with the backlog.²⁹ The surcharge and other existing patent reform proposals are positive, long-term steps toward providing the office with more resources and operational improvements. However, proceeds from the surcharge and improvements from reform will not be available until next year at the earliest, and the patent crisis needs to be addressed now.

After years of diverting USPTO fees, Congress should step up to the plate and provide the USPTO with the resources it needs to give the green light to innovators, entrepreneurs, and investors.

This won't solve the whole problem.

It's not supposed to. There are a number of issues, such as long-term funding to international cooperation, which must be solved before USPTO can operate at maximum efficiency. Although it won't completely eliminate the backlog unless these other issues are addressed, alleviating the examiner shortage is a necessary part of the solution that we can make progress on immediately with demonstrable benefits for our economy.

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ENDNOTES

- 1 U.S. Patent and Trademark Office, "Performance and Accountability Report Fiscal Year 2009," Available at: <http://www.uspto.gov/about/stratplan/ar/2009/2009annualreport.pdf>.
- 2 Ibid.
- 3 In FY09 total average pendency was 34.6 months, and in FY05 total average pendency was 29.1 months. Ibid.
- 4 Arti Rai, Stuart Graham, and Mark Doms, "Unleashing Innovation, Promoting Economic Growth and Producing High-Paying Jobs," U.S. Department of Commerce, April 13, 2010, Available at: http://www.patentsmatter.com/issue/pdfs/20100420_doms_graham_rai.pdf.
- 5 John Schmid and Ben Poston, "Patent Backlog Clogs Recovery," Milwaukee Journal Sentinel, August 15, 2009, Available at: <http://www.jsonline.com/business/53319162.html>.
- 6 London Economics, "Economic Study on Patent Backlogs and a System of Mutual Recognition," January 2010, Available at: <http://www.ipo.gov.uk/p-backlog-report.pdf>.
- 7 Mark Blaxill and Ralph Eckardt, "The Invisible Edge: Taking Your Strategy to the Next Level Using Intellectual Property," Portfolio, 2009.
- 8 John Schmid, "Backlog of Patents Still Stifling Potential Jobs, Director Says," Milwaukee Journal Sentinel, May 3, 2010, Available at: <http://www.jsonline.com/business/92732189.html>.
- 9 World Intellectual Property Organization, "World Intellectual Property Indicators 2009," September 2009, Available at: http://www.wipo.int/export/sites/www/ipstats/en/statistics/patents/pdf/wipo_pub_941.pdf.
- 10 Ibid.
- 11 State Intellectual Property Office of the People's Republic of China, "Annual Report 2008," Available at: http://www.sipo.gov.cn/sipo_English/laws/annualreports/AnnualReport2008/.
- 12 London Economics.
- 13 Thomas H. Stanton, Marilu Goodyear, Bernard Ross, Daniel L. Skoler, and Charles Van Horn, "U.S. Patent and Trademark Office: Transforming to Meet the Challenges of the 21st Century," National Academy of Public Administration, August 2005, Available at: http://www.aipla.org/Content/ContentGroups/Issues_and_Advocacy/Comments2/Patent_and_Trademark_Office/20055/U_S_Patent_and_Trademark_Office_Transforming_to_Meet_the_Challenges_of_the_21st_Century.htm.
- 14 U.S. Patent and Trademark Office, "Performance and Accountability Report Fiscal Year 2009."
- 15 Terry Carter, "A Patent on Problems," ABA Journal, March 1, 2010, Available at: http://www.abajournal.com/magazine/article/a_patent_on_problems/.
- 16 Matt Osenga, "Kappos on PTO Budget Situation," Inventive Step, January 22, 2010, Available at: <http://inventivestep.net/2010/01/22/kappos-on-pto-budget-situation/>.
- 17 John Schmid, "Congress Deals Funding Blow to Patent Office," Milwaukee Journal Sentinel, December 29, 2009, Available at: <http://www.jsonline.com/business/80244907.html>.
- 18 Dennis Crouch, "Director Kappos on USPTO's (Lack of) Funding," Patently-O Blog, January 21, 2010, Available at: <http://www.patentlyo.com/patent/2010/01/director-kappos-on-the-usptos-lack-of-funding.html>.
- 19 Stanton, et al.

- 20 U.S. Patent and Trademark Office, "Under Secretary of Commerce David Kappos Announces President Obama's FY 2011 Budget Request for the USPTO," Press Release, February 1, 2010, Available at: http://www.uspto.gov/news/pr/2010/10_07.jsp.
- 21 Stanton, et al.
- 22 U.S. Patent and Trademark Office, "Utility, Plant, and Reissue Examiner Staffing: FY09 Examiner Staffing by Quarter," December 30, 2009, Available at: <http://www.uspto.gov/patents/stats/examstaffing.jsp>.
- 23 Testimony of Robert D. Atkinson, President, Information Technology and Innovation Foundation, United States Senate Committee on Finance hearing, "Combating Unfair Practices in the Innovation Economy," May 22, 2008, Available at: <http://archive.itif.org/index.php?id=148>.
- 24 Rai, Graham, and Doms.
- 25 Paul W. Bauer, Mark E. Schweitzer, and Scott Shane, "State Growth Empirics: The Long-Run Determinants of State Income Growth," Federal Reserve Bank of Cleveland, May 2006, Available at: <http://www.clevelandfed.org/Research/Workpaper/2006/wp0606.pdf>.
- 26 Rai, Graham, and Doms.
- 27 U.S. Chamber of Commerce, "Protecting Intellectual Property," Available at: <http://www.uschamber.com/IP.htm>.
- 28 White House Office of Management and Budget, "The Appendix, Budget of the United States Government, Fiscal Year 2011—Department of Commerce," Available at: <http://www.whitehouse.gov/omb/budget/fy2011/assets/com.pdf>.
- 29 U.S. Patent and Trademark Office, "Under Secretary of Commerce David Kappos Announces President Obama's FY 2011 Budget Request for the USPTO."