

## WHY BATTLING BUGS IS A BOOMING BUSINESS, AND MAY BE GETTING BIGGER

**Climate change and other global trends could lead to more encounters with pests—and rising demand for pest control services.**

August 2018



### ■ KEY TAKEAWAYS

- Demand for pest control services should continue to rise in coming years, especially in the developing world, due to urban population growth, expanding middle classes, stricter health regulations, and global warming.
- Because many homeowners and most businesses afflicted by an infestation will not wait for an improved economy before calling an exterminator, demand does not ordinarily drop meaningfully during recessions.
- With reputations on the line, commercial customers—particularly restaurants and hotels—tend to view pest control as an unavoidable cost of doing business. As a result, some pest control companies have been able to raise prices continually while retaining customers.
- Pest control companies with a large network of service locations have advantages over smaller competitors, including the ability to serve customers more efficiently and an increased likelihood of winning lucrative contracts with large corporate customers.

Our aversion to pests, deeply rooted in all civilizations, is for good reason: they sting and bite, infest our homes, and, if left unchecked, can ruin our crops, weaken our buildings, and even sicken or kill us. In the fourteenth century, lice and fleas, potentially carried by rats, spread the bubonic plague, causing a pandemic so calamitous it wiped out as much as 60% of Europe’s population. Insects and rodents still plague humanity today. Common houseflies do not merely annoy but spread typhoid, cholera, and dysentery. Mosquitos do not just leave itchy bumps but transmit malaria, Zika virus, and a host of other ailments. Termites alone cause around US\$40 billion in property damage each year worldwide.

The need to rid our environments of pests supports about 40,000 companies globally that specialize in removing rodents from restaurants, bedbugs from hotels, and an array of other unwanted critters from our homes and businesses. Their four-, six-, and eight-legged targets are formidable adversaries, not least because they reproduce with astonishing speed: a single housefly can lay 500 eggs in two weeks, a flea 5,000 in two or three months, and a termite queen 35,000 in a day. Four multinational firms—Rollins, ServiceMaster, Rentokil, and Ecolab—control about a third of the global pest control market, with the remaining market share largely divided among regional operators and small, local businesses. About half the pest control market, by sales, is located in North America, with the remaining half split between other developed markets (Europe and the Pacific) and emerging markets (Asia, Latin America, Africa, and the Middle East).

Despite their effectiveness, there is no sign that modern pesticides are putting extermination companies out of business. To the contrary, the pest control industry—which excludes agricultural uses and off-the-shelf products like bug spray—has grown steadily over time in both developed and emerging markets, and there are reasons to believe industry growth will continue for years to come, says Harding Loevner’s Shali Zhu, CFA. One market research firm projects pest control will be a US\$24 billion global industry in 2024, up 50% from US\$16 billion in 2016.<sup>1</sup> Rentokil, in a 2018 report, predicts the industry will grow at an annual rate of 6–8% in emerging markets, 4–6% in North America, and 2–4% in other developed markets over the next five years.<sup>2</sup>

## ■ WHAT’S DRIVING GROWTH

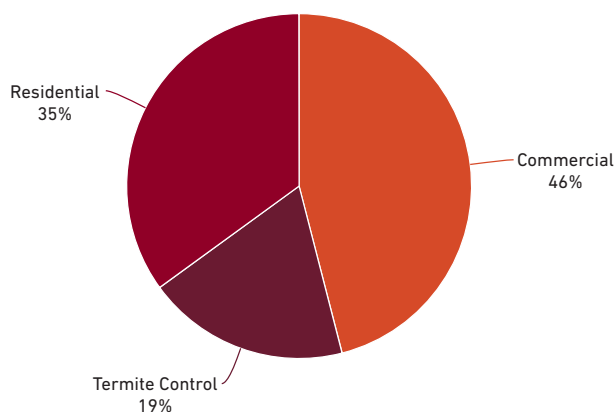
Historically, four long-term, global trends have increased demand for pest control services, Zhu says. These same trends should continue to fuel growth in coming years, albeit to varying degrees in different parts of the world. “While some of these secular demand drivers have begun to slow in developed markets such as Europe and North America, some are still very much at play in emerging markets and others are

<sup>1</sup>“Global Pest Control Market,” Allied Market Research, April 2018; “The Global Pest Control Market is Projected to Grow,” Markets Insider, July 26, 2017.

<sup>2</sup>Rentokil, *The Rentokil Pest Control Report 2018*, May 2018, 18-22.

### THE BUSINESS OF BATTLING BUGS

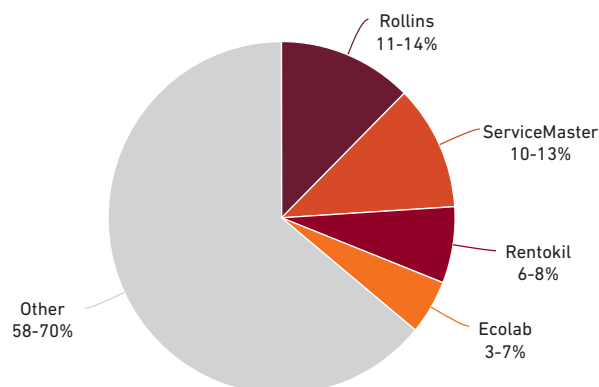
Global Pest Control Industry, by Service



SOURCE: RENTOKIL, 2018

### THE BIG FOUR BUG KILLERS

Global Market Share in the Pest Control Industry



SOURCE: COMPANY FILINGS (2016) AND HARDING LOEVNER ANALYST ESTIMATES

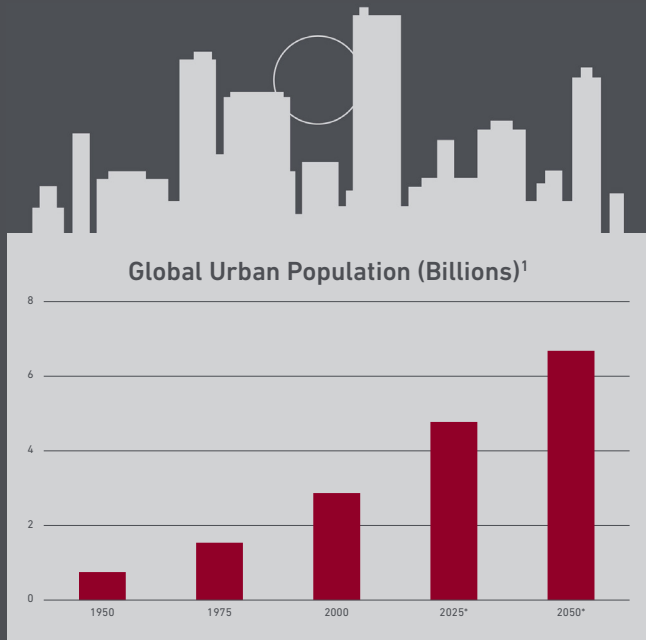
just beginning to take effect in some frontier market countries, providing a long runway for global growth,” says Zhu.

The first driver of demand is urban population growth. Dense urban environments create ideal conditions for pests such as cockroaches and rodents to thrive. As urban populations increase, more people generally come into contact with more pests, leading to more calls to exterminators. In many developing countries, particularly in Asia and Latin America, migration from the countryside to the city has led to a rapid rise in the urban population. China, for example, has added close to 400 million people to its urban population since 2000 and is now one of the world’s fastest-growing pest control markets. Though the majority of Africa’s population remains rural, urbanization is accelerating faster there than on any other continent, which should support a growing need for pest control for years to come. While rural-to-urban migration has slowed to a trickle in most industrialized economies, urban populations in some places, such as the South and West of the US, continue to expand through a combination of immigration, natural increase, and domestic migration to cities with greater economic opportunity.

# 4 Trends Driving Demand for Pest Control

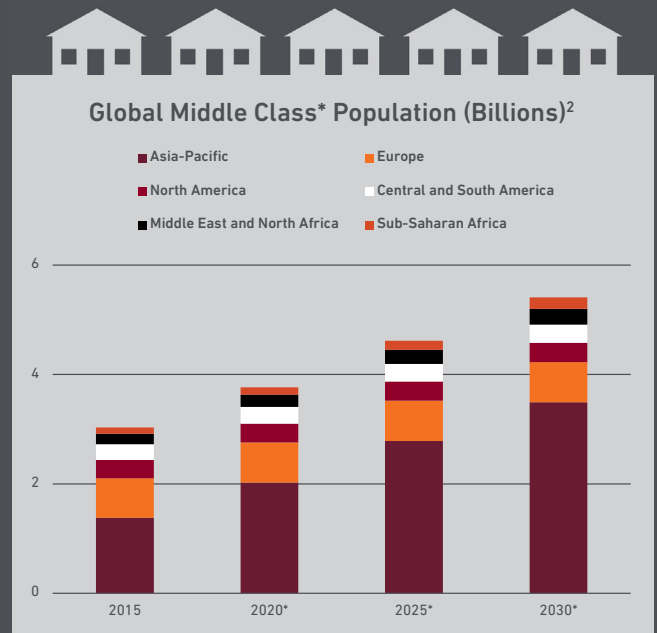
## Urban Population Growth

Urban environments are ideal breeding grounds for many pests. As cities grow, people encounter more pests.



## Middle Class Growth

As middle classes expand globally, more people can afford to hire exterminators when the need arises.



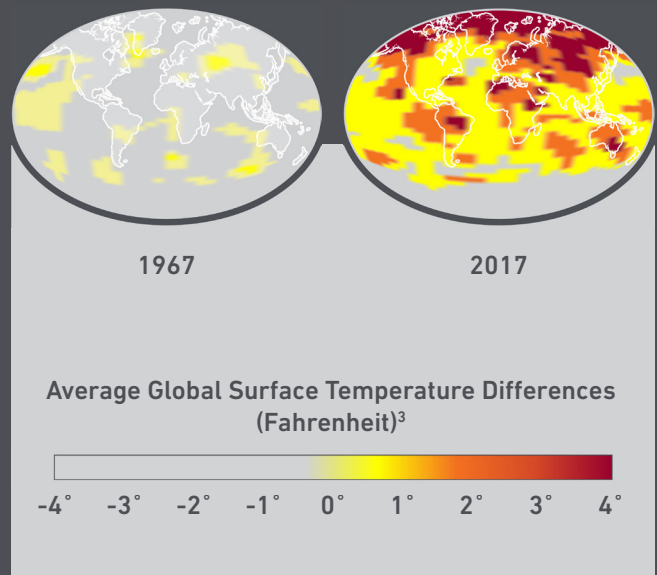
## Stricter Health Regulations

Regulations that require certain businesses to be pest-free are increasing, especially in developing countries.



## Global Warming

A warmer planet creates conditions for many pests to thrive, which will result in more infestations.



<sup>1</sup> SOURCE: UNDESA (2025 AND 2050 ESTIMATES BASED ON 2018 PROJECTIONS); <sup>2</sup> SOURCE: BROOKINGS INSTITUTION, 2017. \*MIDDLE CLASS DEFINED AS HOUSEHOLDS WITH PER CAPITA INCOME OF US\$11-110 PER PERSON PER DAY (2011 PPP); <sup>3</sup> DATA SOURCE: NASA/GISS, CREDIT: NASA SCIENTIFIC VISUALIZATION STUDIO.



**“As average temperatures continue to rise as a result of global warming, pest infestations are projected to increase globally.”**

Second, as education and incomes rise, people both expect and are able to afford more hygienic living conditions—including occasional pest control treatments to keep them that way. Though middle class growth in developed countries has slowed (and may even be receding) after a dramatic rise during the twentieth century, the middle class continues to expand rapidly throughout most of the developing world. Rising living standards should boost demand for pest control services in countries like Nigeria, Indonesia, and India.

Stricter health regulations are the third driver of pest control demand. “Regulations within the food and beverage, hospitality, and health care sectors have been increasing in both developed and developing countries, though they tend to be increasing in scope at a faster rate in emerging and frontier markets,” says Zhu. Globalization is also contributing to a rise and synchronization of health and safety regulations, particularly in globally connected industries such as food processing. Governments have an interest in ensuring domestic companies are not excluded from global supply chains for failing to meet minimum hygiene standards. In some cases, stricter regulations are built into trade agreements. For example, the European Union has introduced legislation requiring food business operators to take adequate measures—including pest control treatments—to ensure non-contamination.

Finally, warmer temperatures lead to an increase in insect and other pest populations.<sup>3</sup> As average temperatures continue to rise as a result of global warming, pest infestations are projected to increase globally. Rentokil says the public health impact of mosquitos and demand for their control are currently rising, in part, for that reason.

## ■ INDUSTRY DYNAMICS

Despite robust demand for their services, pest control companies face a number of hurdles. For one, it is not especially difficult for aspiring exterminators to start a pest control business and compete with local firms. In the US, for example, startup costs—including insurance, supplies, and basic equipment—can be as low as US\$10,000, compared with upward of US\$100,000 to open a new restaurant. Though licenses are normally required for all pest control operators, they tend not to be particularly difficult to obtain. Moreover, most extermination services rely on pesticides produced by a small number of large chemical companies. Since pest control operators—especially smaller ones—tend to order pesticides in moderate quantities compared with large agricultural buyers, they have limited power to negotiate lower prices.

<sup>3</sup>Black, Judy, “Impact of Climate Change on Pest Populations,” Food Safety Tech, May 14, 2018.



Credit: Praxis Eco Pest Control, Licence: CC BY 2.0

Yet pest control companies benefit from the fact that people with serious pest problems have few effective options but to call an exterminator. Do-it-yourself solutions like bug sprays, roach motels, and mousetraps are readily available in stores and offer consumers a cheaper alternative to hiring a professional service. However, they are only suitable for minor problems, can be time-consuming, and sometimes fail. What's more, the cleanup is not for the faint of heart.

**“I wouldn't go so far as to call the pest control industry recession-proof, but it's certainly recession-resistant.”**

Some pests, such as bedbugs and termites, are especially difficult for amateurs to eradicate without professional help. Others, such as wasps, spiders, scorpions, and snakes, can be too dangerous or frightening for a DIY job. Those contending with certain infestations, then, are reliant on pest control companies. As a result, some pest control companies have been able to raise prices continually while maintaining high customer-retention rates, especially where local competition is not particularly fierce.

Some otherwise environmentally conscious customers might even forgo their green values when invaded by pests, according to Zhu. “Truly eco-friendly pest control treatments may not be as effective as traditional pesticide treatments. So if preventative measures don't work and eco-friendly pest control treatments aren't available or prove ineffective, I'd imag-

ine many of these customers would prioritize effective pest removal over their environmental concerns.”

Preventing pest infestations—or mitigating them after the fact—is particularly important for restaurants, hotels, and hospitals. Not only can regulators impose heavy fines or shut down businesses that violate health ordinances, customers who encounter a bug-infested business may shame them on social media. “In the age of customer review apps such as Yelp, businesses are well-aware that a customer report or, worse, photo of a pest infestation can be shared around the internet within minutes and potentially damage their brand,” says Zhu. With reputations at stake, businesses in the food and beverage, hospitality, and health care sectors are especially inclined to hire a pest control company promptly when faced with an infestation. In fact, many commercial customers schedule routine treatments to prevent potential infestations, providing pest control companies with a recurring revenue stream.

### **“Four of the 100 largest pest control companies in the US were acquired in May 2018 alone.”**

One of the most distinctive characteristics of the industry is its cockroach-like resilience during economic downturns. Many homeowners and most businesses afflicted by an infestation will call an exterminator without waiting for an improved economy, so business does not ordinarily drop by a meaningful amount during recessions. Rollins—the parent company of Orkin in the US—has grown its revenues and operating profits every year since 1998, even during the 2008-2009 financial crisis. “I wouldn’t go so far as to call the pest control industry recession-proof, but it’s certainly recession-resistant,” says Zhu.

### **■ ADVANTAGES OF SCALE**

The companies best positioned to thrive in this environment are those with access to sufficient capital to acquire or open new locations. Operating an extensive branch network confers a number of competitive advantages, including the opportunity to generate greater brand recognition through cost-effective advertising and the ability to operate with lower average costs due to economies of scale. In recent years, consolidation has been intense in North America, which is still home to about half the world’s pest control companies. In fact, four of the 100 largest pest control companies in the US were acquired in May 2018 alone, two of them by US-based Terminix, and one each by European firms Rentokil and Anticimex.

When strategizing the best way to build out a network of branches, large pest control companies can prioritize regional breadth or depth, either of which carries distinct advantages,

says Zhu. Companies with wide networks that span across one or multiple countries have an edge when competing to serve large corporate customers with broad footprints. “Rather than entering into multiple contracts with various local mom-and-pops, national or multinational corporations may prefer contracting with larger pest control companies that can provide consistent high-quality service across their various locations as it can help maintain and protect their brand and reputation,” says Zhu. Rentokil, for example, which operates pest control businesses in over 70 countries throughout the Americas, Europe, the Middle East, Africa, and Asia Pacific, derives 80% of its pest control revenues from commercial services.<sup>4</sup>

Companies that build dense networks within particular cities or regions can achieve high logistical efficiency, minimizing the unproductive time it takes their crews to get from one job to the next. “Service route efficiency is an important factor when it comes to profitability,” Zhu says. Rollins, for example, which already has a concentrated presence in North America, continues to add branches to its existing service areas in the region. By doing so, the company has been able to increase its service route efficiency over time, which has led to measurable cost savings for the firm.

Despite modern pesticides and the efforts of tens of thousands of companies, pest control remains a Sisyphean task. “It’s easy to kill bugs, but it’s much harder to keep them from coming back,” Zhu says. For the foreseeable future, the bedbugs will continue to bite—and demand for professional pest control services should continue to grow.

### **■ CONTRIBUTORS**

Associate Analyst Shali Zhu, CFA contributed research and viewpoints to this article.

### **■ DISCLOSURES**

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<sup>4</sup>Rentokil, *The Rentokil Pest Control Report 2018*, May 2018, 3.