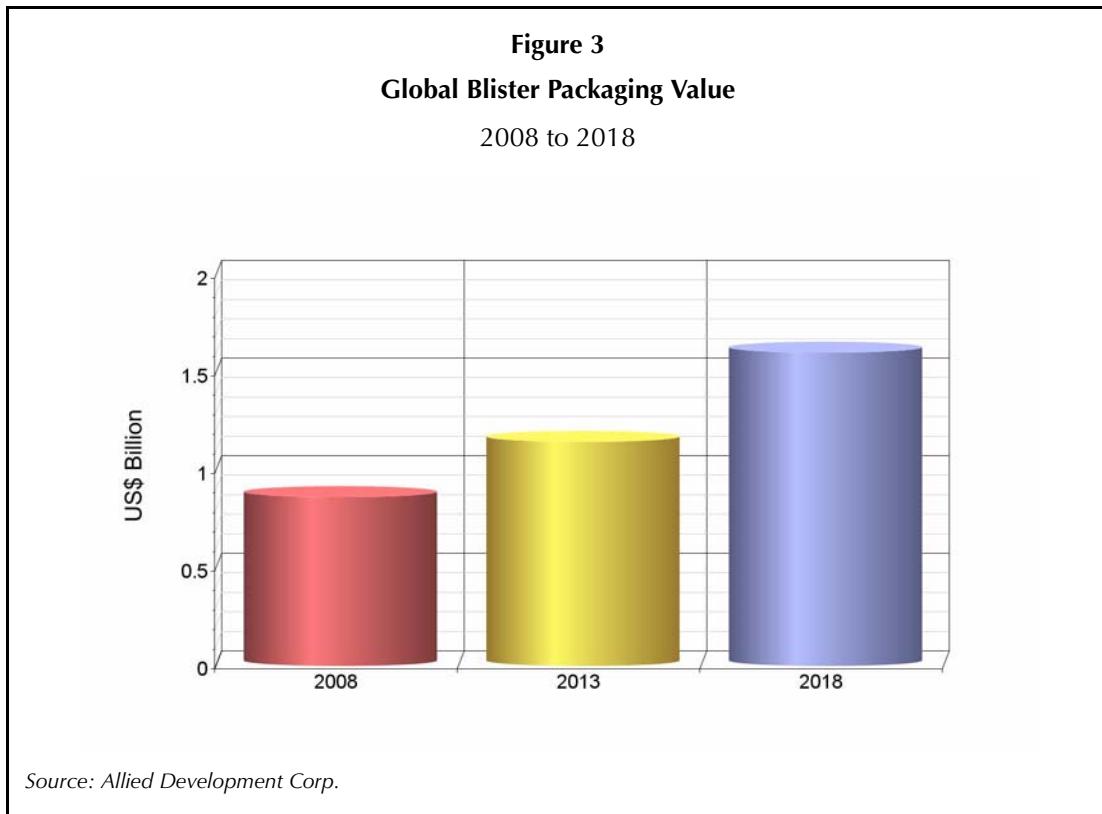


## D. Market projections

The key market statistics and projections are examined in the following paragraphs. Figure 3 provides global blister pack value.



### 1. Global volume (units) segmented by end-use

Figure 4 provides global blister pack consumption, segmented by end-use and measured in units.

## D. Primary packaging processes and equipment

The focus of the study now shifts to the blister packaging process and corresponding equipment.

### 1. Blister pack equipment

Figure 28 pictures a blister pack machine.

**Figure 28**  
**Blister Pack Machine**



Source: Uhlmann Pac-Systeme GmbH & Co. KG

The key operational advantages of blister packaging equipment include:

- a process that utilizes rollstock films rather than more expensive finished packaging
- equipment that can control the speed of the packaging process

## B. Macroeconomic factors

The effects of the macroeconomic environment must be evaluated for every market. To begin, we examining select macroeconomic metrics including current dollar GDP, pharmaceutical industry revenues, and number of prescriptions. Table 25 provides the quantitative values for these factors in select geographic regions from 2010 to 2014.

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**Table 25**  
**Macroeconomic Influences – Short Term**  
(billion)

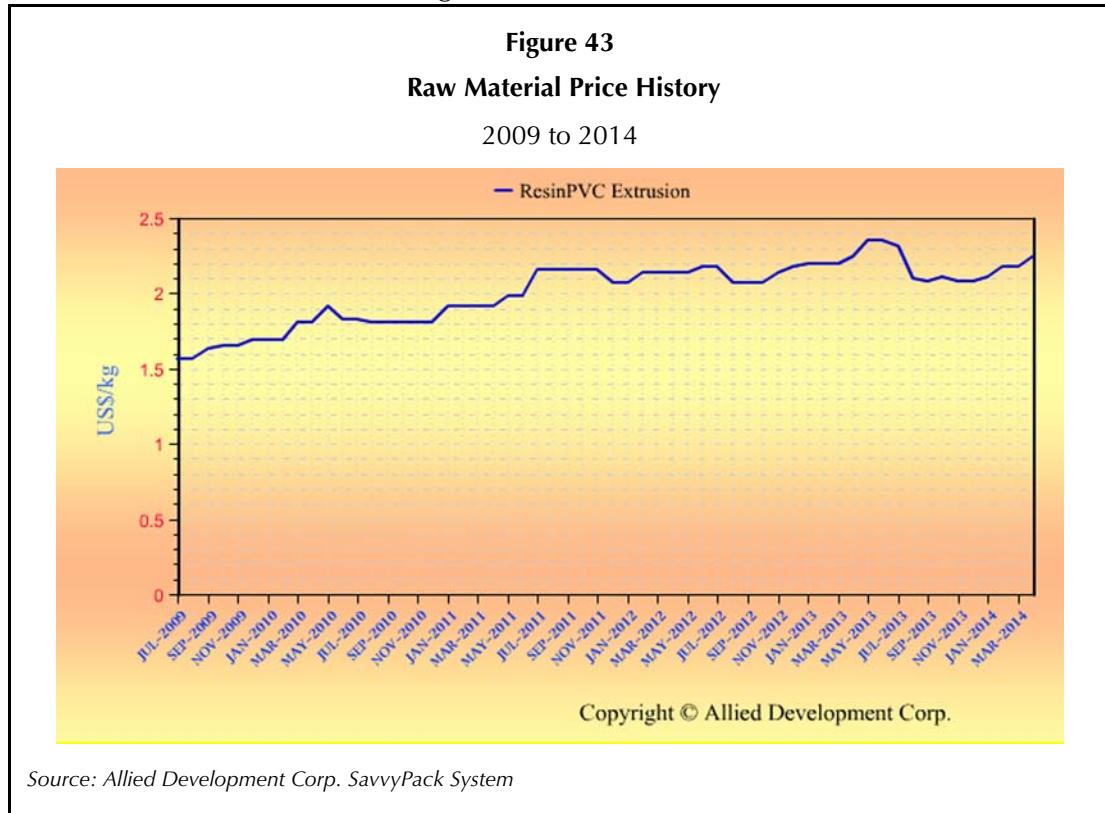
METRIC	2010	2011	2012	2013	2014
<b>GLOBAL</b>					
GDP (trillion)	\$64.0	\$70.8	\$72.2	\$73.5	\$76.9
AGR		10.6%	2.0%	1.7%	4.7%
Drug Industry Revenue	\$842.6	\$889.4	\$936.9	\$959.0	\$1,001.2
AGR		5.6%	5.3%	2.4%	4.4%
Prescriptions (number)	14.44	15.15	15.69	16.31	17.12
AGR		4.9%	3.6%	4.0%	5.0%
<b>NORTH AMERICA</b>					
GDP (trillion)	\$17.6	\$18.5	\$19.2	\$19.9	\$20.7
AGR		4.9%	4.2%	3.3%	4.2%
Drug Industry Revenue	\$318.0	\$337.2	\$335.3	\$332.4	\$337.3
AGR		6.1%	-0.6%	-0.9%	1.5%
Prescriptions (number)	4.00	4.03	4.08	4.13	4.19
AGR		0.8%	1.2%	1.4%	1.3%

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Source: International Monetary Fund, IMS Health, and Allied Development Corp.

After the late 2008 collapse of the global financial system and the resulting major decline in global GDP in 2009, global GDP rebounded through 2011 (10.6% from 2010 through 2011) but then slowed down significantly through 2012 and 2013 (Table 25). Global drug industry revenue growth slowed

forming web raw material cost. Figure 43 provides the price history in North America of one grade of PVC resin.



The price history in Figure 43 shows that PVC resin pricing has gradually increased in the 2009/2014 time period, compared to its drop in late 2008 (not pictured), due to the financial crisis. While price volatility is certain, we expect PVC resin prices to continue to show moderate appreciation through 2018.

Considering product mix, market supply and demand, and manufacturing cost, we project value growth of 7.1% per year between 2013 and 2018, compared to 6.0% per year for area. We believe that changing product mix will continue to drive value growth faster than volume growth in the future. Supply and demand and raw material price inflation will also add to value growth, but as less important factors.