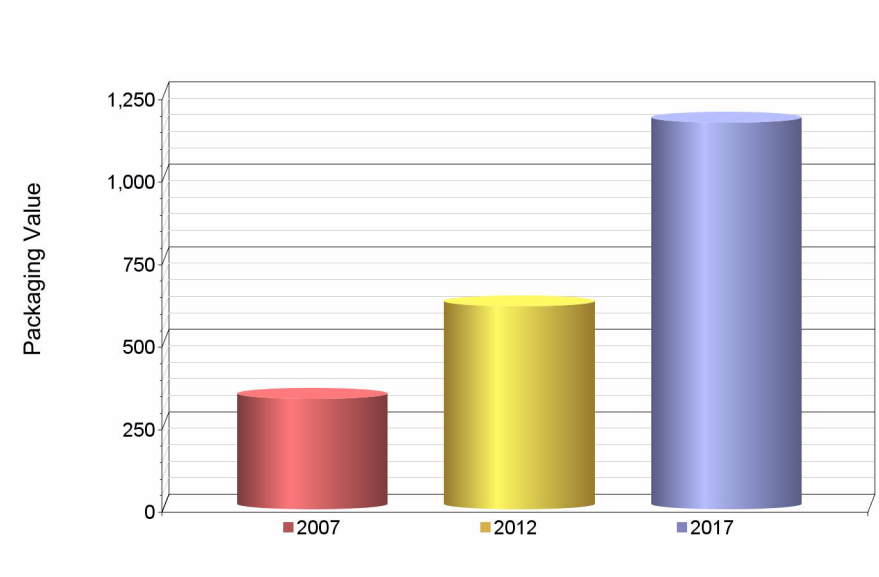
Figure 2 provides stick pouch value from 2007 to 2017.

Figure 2

Global Stick Pouch Market Value

(US$million)



Source: Allied Development Corp.

Stick pouch market value increased by US$281 million in the 2007 to 2012 time period to US$615 million (Figure 2). This increase equates to growth of 13.0% per year, slightly more than the volume growth rate of 11.2% per year (Figure 1).

We forecast an increase in stick pouch market value of US$558 million in the 2012 to 2017 time period to US$1.2 billion. This increase equates to growth of 13.8% per year, slightly more the volume growth rate of 12.2% per year.

We segmented the stick pouch industry into its major end-use categories, which are dry food, wet food, dry healthcare, wet healthcare, and other applications. Food and healthcare are logically segmented by dry and wet products, due to the differences in the products themselves, and the fact that

Figure 20
Micro Tablets

Source: Merz Verpackungmaschinen GmbH

2. Filling rate

In the packaging industry, filling rate is always an important consideration. For stick pouch machinery, the primary means of increasing the filling rate is through the use of a greater number of lanes on a single machine. As stated previously, stick pouch machines are available from Sanko Machinery Co. Ltd. of Japan with up to 26 lanes per machine for dry products. Figure 21 shows Sanko's FC1000 machine. The frame has 26 lane capability, but in this picture the stick pouch machine is configured for 18 lanes.

Figure 30

Child-resistant Stick Pouch

Source: Constantia Flexibles GmbH

Laser-scored tear notches can provide more precise and accurate tear notches compared to those achieved through mechanical processes. Film can be purchased with tear notches laser scored at the film manufacturer, or the form/fill/seal company can purchase laser-score equipment and mount it on the stick pouch machine just after the unwind area and before form/fill/seal. The notch is laser scored in the transverse direction. The equipment to provide in-line laser-scored tear notches is relatively expensive, so it is typically used only for high-volume applications.

There is another method used to weaken the packaging material in the tear area of the pouch to provide easier opening. A laminated film can be weakened in the desired tear area (usually the seal area), by the addition of a paper composite material during the lamination process. Film laminated with paper in the tear area is an inexpensive way of adding an easy-open feature to a pouch. A tear notch can be used in combination with this feature.

A. Stick pouch applications

From the beginning, the condiments industry has used the most stick pouches, for both wet and dry condiments. Condiments remain extremely important, but other end-uses now contribute a great deal of volume and growth to the stick pouch industry. For example, nutraceuticals have generated a great deal of stick pouch volume in recent years. The following list provides some of the most recent products to be offered in stick pouches:

- Dole Food Co. Inc. (U.S.A.) – *Nutrition Plus* chia seeds
- Hope Hummus LLC (U.S.A.) – *Hope* organic hummus
- Lonza Pharmaceuticals (Switzerland) – *Alomune* immune system supplement (chocolate or berry)
- Nestlé (U.S.A.) – *Ovaltine* meal replacement sample
- NutriCology (U.S.A.) – *ProBerry-Amla* dietary supplement
- Scivation Inc. (U.S.A.) – *Xtend* intra-workout catalyst bodybuilding powder

Table 15 provides a more extensive list of important stick pouch applications.

Table 15 (Sheet 1 of 4)
Stick Pouch Applications

COMPANY	PRODUCTS
Abbott Nutrition	*Pedialyte* infants/children oral electrolyte powder
Acino Holding AG	*Artequin* malaria medication
AdvoCare International L.P.	*AdvoCare Oasis* anti-stress drink mix
Ahn-Gook Pharmaceutical Ltd.	*PROSPAN F* cough syrup
Allergy Research Group, Inc.	*ProGreens* probiotic powder
Arizona Beverage Co.	*AriZona* flavored tea mix
ASTERiSM Healthcare Plus Inc.	Fish collagen