## Market and Product Development continued

### Leadframe Division

Thanks to increased market demands, capacity expansion and operational improvements in both our new China stamped frames factory and Singapore etched frames plant, ASM generated a 31.2% gain in leadframe turnover last year, achieving US\$74.1 million leadframe revenue representing 15.1% of the Group's total sales. This compares favourably with the SEMI January 2005 report estimating the leadframe industry to have grown 14.3% in 2004, and is evidence of our progress in strengthening our leadframe market position through strategic realignment.

Super fine pitch etching and stamping, precision plating and bleed control, moisture sensitivity level MSL = 1 and the continued drive for cost reduction pose challenges to our leadframe business, demanding concerted development efforts and capital investment in more capable machinery. However, the migration to lead-free electronics and QFN packaging represent real opportunities for ASM. Palladium-plated leadframes have facilitated our market penetration into strategic integrated device manufacturers (IDMs), while we have leveraged on our total packaging solution and etching knowhow to build a strong market position on QFN frames.

New strip plating machines to support our etched frames will be installed in the first six months of 2005. Thereafter, we will equip our Malaysian plant with stamping capabilities to be close to some of our target stamped frames customers in Malaysia and Singapore. Concurrently, we also aim at broadening our product offerings with fine pitch, high leadcount TQFP and power leadframes from our China factory, generating higher business volume to shoulder the necessary overhead.

# **Capacity and Plant Development**

To cope with the soaring demands during the first six months of 2004, we increased our production manpower and made major purchases of CNC machines for our China factory. As a result, capital investment in 2004 amounted to HK\$299.8 million, in line with the revised budget announced in July.

Our 280,000 sq.ft. Malaysian factory in Pasir Gudang, Johor Bahru was completed according to plan. We relocated our machine part production and post-plating operation to this new plant at the beginning of the year. It is our intention to further extend our Malaysian plant's capabilities to cover both design and manufacturing activities supporting our Singapore factory.

We have budgeted HK\$200 million for capacity and plant development in 2005. Similar to the previous year, this will be used for acquiring new analytical equipment, hardware and software to support R&D, logistics and information systems, stamping presses and dies, plating lines and post-plating set-up, CNC machinery for producing parts, and in addition, fund the remaining investments going into our recently available Malaysian plant.

## 市場及產品發展續

### 引線框架系列

由於市場需求增加、生產力提升和設於中國的 新沖壓式框架廠房及新加坡的蝕片框架廠房業務 改善,ASM去年來自引線框架業務的營業額上升 百分之三十一點二達七千四百一十萬美元,佔集 團總銷售額百分之十五點一。與SEMI二零零五年 一月份報告估計引線框架業於二零零四年增長 百分之十四點三比較,成績相當理想,同時證明 集團在透過策略性重組鞏固其引線框架市場方面 已取得進展。

對超微距浸蝕及沖壓、精密電鍍及漏鑄控制、 濕度敏感性水平MSL=1及削減成本的不斷要求, 均為集團的引線框架業務帶來挑戰,需要協調 地作出開發和投資於產能更高的機械。然而, 轉用無鉛電子產品及QFN包裝為ASM締造實質的 機會。鍍鈀引線框架有助我們打入策略性集成 裝置製造商(IDMs)市場,同時我們亦利用全面 包裝解決方案及浸蝕技術在QFN框架市場上建立 穩固地位。

支援蝕片框架的嶄新片式電鍍機(strip plating machines) 將於二零零五年上半年安裝。此後, 集團將為馬來西亞廠房添置沖壓裝置,以更佳地 供應我們在馬來西亞及新加坡的若干目標沖壓 框架客戶。同時,集團亦旨在通過產自中國廠房 的微距焊點、高針數TQFP及電源引線框架, 增加業務量以承擔基本運作成本。

## 生產力及廠房發展

為應付二零零四年上半年需求劇增,我們增加了 生產人手及為中國廠房大量購置電腦數控機床。 結果,二零零四年資本性投資達港幣二億九千 九百八十萬元,與七月份宣佈的經修訂預算相符。

位於Pasir Gudang, Johor Bahru面積達二十八萬 平方呎的馬來西亞廠房如期落成。 我們已於年初 將機件生產及電鍍後工序遷移至此新廠房。集團 擬進一步為馬來西亞廠房添置設計及生產能力, 為新加坡廠房提供支援。

集團已在預算中撥出港幣二億元,作為二零零五 年生產力及廠房發展方面的用途。 與去年一樣, 此筆款項將用於購置新的分析設備、支援研究 發展的軟硬件、物流及資訊系統、沖壓機及模 具、電鍍生產線及電鍍後裝置、生產部件的 電腦數控機床,並為最近落成的馬來西亞廠房的 其餘投資提供資金。

# **■■ MANAGEMENT DISCUSSION AND ANALYSIS continued** 管理層討論及分析 續

## **Research and Development**

The electronics industry is characterized by its continuous drive for greater miniaturization, faster speed, more efficient electrical and thermal performances, and higher functionalities with lower cost for each new generation of product. To support device manufacturers meeting these challenges, equipment suppliers increasingly have to deliver customized solutions that answer to the end users' specific needs. ASM now has multiple platforms in practically every major equipment category: die bonder, wire bonder, flip chip bonder, encapsulation, ball placement, package singulation and test handler.

Companies in the equipment industry compete not only on current product offerings but also in innovation rate and time-to-market of new and better products. To ensure the long term success of the Company and to come up with more products fulfilling customers' diversified needs, we have enlarged our research and development team based in Hong Kong and Singapore to approximately 600 people. In 2004, our net R&D expenditure also increased by 20.3% to HK\$262.6 million (2003: HK\$218.4 million), representing 8.1% of our equipment sales and in line with our R&D funding guidelines.

Drawing on ASM's advanced enabling technologies such as motion control, vision systems, optics, materials and reliability, our product development strategies are polarized into on the one hand a relentless drive for superior performance – higher speed, more capable process, improved reliability and userfriendliness - and on the other for customized solutions combining lower cost, lower output and smaller footprint, multiple-chip attachment, ultra-thin or transparent epoxy encapsulation, wafer level package handling, etc. To fulfil the former, we have in the pipeline a series of die, wire and flip chip bonders, and package singulation systems to be launched later this year. As for the latter, we have either completed or are further developing additional equipment for image sensor, photonic devices, smart cards, high brightness LED, RFID, SIP, MCM, WLP, etc. It is ASM's firm belief - validated by our history – that a strong portfolio of world-class products is key to staying ahead in this dynamic industry.

## 研究及發展

電子業的特色是對提升纖細度、增加速度、更具效率的電熱性能、性能較高但成本較低的新一代產品不斷提出要求。為支持裝置製造商應付這些挑戰,設備供應商越來越須提供度身訂造的解決方案,以滿足最終用戶的特定需要。ASM目前差不多在每一主要設備類別均擁有多種平台:管芯焊接機、焊線機、覆晶焊接機、塑封工序、焊球放置、包裝切割及測試處理器。

於設備業內,同業間不單止以現有產品競爭,亦以創新速率和新產品及改良產品的產銷週期一較高下。為確保公司業務取得長遠成功,以及提供更多產品滿足客戶的多元化需要,我們已將駐香港及新加坡的研究發展隊伍擴充至約六百人。於二零零四年,集團的研究發展淨開支亦增加百分之二十點三至港幣二億六千二百六十萬元(二零零三年:港幣二億一千八百四十萬元),佔銷售設備收入百分之八點一,與集團的預算指引相符。

利用ASM先進技術(如機動控制、視頻系統、 光學系統、材料及可靠性等),我們的產品發展 策略分為兩方面,一方面是對卓越性能的持續 追求 - 增加速度、提升程序性能、提高可靠性及 易用程度,另一方面是結合成本及產量較低與 體積較小的封裝設備、多片焊接、超薄或透明環 氧塑封工序、晶片包裝處理等提供度身訂造的解 決方案。為達到前一個目標,我們現正生產一系 列管芯、焊線及覆晶焊接機以及包裝切割系 統,預計於今年較後時間推出。至於後一個目 標,我們已為影像感應組件、光子器件、智能 卡、高亮度LED、RFID、SIP、MCM、WLP等完成 或進一步開發輔助設備。ASM堅信,要在此瞬息 萬變的行業中處於領先地位,廣闊的世界級產品 系列扮演著舉足輕重的角色,這從我們過去的歷 史可以獲得明證。

# ■■ MANAGEMENT DISCUSSION AND ANALYSIS continued 管理層討論及分析 續

### **Financial**

Riding on increased demands for assembly equipment and leadframes in 2004, ASM expanded its turnover 47.0% to US\$491.6 million and achieved 87.1% earnings growth, with earnings in excess of HK\$1 billion. Even though the turnover and the spectrum of ASM products expands year on year, we only needed to slightly increase (4.8% or HK\$25.3 million) our total inventory to HK\$554.8 million in 2004, attaining a record inventory turnover of 7.06 times. Receivables have been closely monitored, resulting in 57.0 days sales outstanding. Bad debt exposure, if any, is immaterial and well covered by provisions made in conformity with the Company's policy. As such, an impressive cash conversion cycle of 119.9 days, a free cash flow of HK\$957.6 million and a return on invested capital of 67.2% were achieved in 2004.

Notwithstanding that HK\$706.9 million was paid as dividends, HK\$42.5 million was spent in repurchase of 1,548,000 shares of Company shares and HK\$299.8 million spent in capital investments during the twelve-month period, cash on hand as of 31 December 2004 was increased by 48.8% to HK\$763.4 million (2003:HK\$513.1 million), with the majority of the capital investments being funded by the current year's depreciation of HK\$182.1 million.

With no bank borrowing either for short or long term, ASM achieved an all bank debt to equity ratio of zero and no gearing for the Group, essentially the same situation as during the past few years. Due to low interest rates in recent times, net interest income only amounted to HK\$7.9 million for the year. With rigorous control over our current assets and liabilities, the current ratio stood comfortably at 3.47. The Group's shareholders' funds increased 13.7% to HK\$2,177.5 million as of 31 December 2004 (2003: HK\$1,915.7 million). Order backlog amounted to US\$63 million on the same date.

ASM's strong financial position is the result of our consistently profitable and cash-generating business performance in past years, as well as our conservative fiscal policy, prudent investment planning and strict working capital management. With no short term need for major cash outlay while we continue our organic growth strategy, we aim to continue our policy of operating the Group with the optimum shareholder fund and returning any excessive cash holdings to our shareholders.

## 財務

由於二零零四年裝嵌設備及引線框架需求增加, ASM營業額增加百分之四十七,達四億九千一盈利 六十萬美元,盈利增長百分之八十七點一,盈利 超過港幣十億元。即使營業額及ASM產品範圍 按年增加,然而我們於二零零四年僅須把總 存貨量輕微增加(百分之四點八可之四點八五百八十萬元, 三十萬元)至港幣五億五千四百八十萬元, 達下 也點、題轉率。在嚴謹的監理任任據 壞賬風險,亦屬微不足道,且有關賬款已再 壞賬風險,亦屬微不足道,且有關賬款已任據 切司政策撥備。因此二零零四年錄得相當里由 資金周轉週期,達一百一十九點九天, 資本回報率達百分之六十七點二。

雖然在過去十二個月期間派發了港幣七億零六百九十萬元股息,以港幣四千二百五十萬元回購1,548,000股公司股份並斥資港幣二億九千九百八十萬元作為資本性投資,二零零四年的手頭現金仍增加百分之四十八點八,達港幣七億六千三百四十萬元(二零零三年:港幣五億一千三百一十萬元),而主要的資本性投資乃由是年港幣一億八千二百一十萬元的折舊所支付。

由於集團並無短期或長期銀行借貸,ASM的銀行貸款對股本比率及資本負債比率均為零,兩者在過去四年基本上均為零。由於近期利率低企,年內的淨利息收入只有港幣七百九十萬元。集團嚴格監控流動資產及流動負債,令流動比率處於三點四七的充裕水平。於二零零四年十二月三十一日,集團的股東資金增加百分之十三點七,至港幣二十一億七千七百五十萬元(二零零三年:港幣十九億一千五百七十萬元)。於同一日期的積存訂單為六千三百萬美元。

ASM財政狀況雄厚穩健,除了有賴過往持續錄得盈利及帶來現金進賬的業務外,亦有賴本集團多年來貫徹採取審慎的財政策略、謹慎的投資計劃及嚴格的營運資金管理。由於短期內並無重大現金支出,加上集團繼續推動本體增長之策略,管理層旨在繼續其政策,預留適當的股東資金作集團營運之用,而將剩餘現金回饋予股東。