Oct. 1996

Accelerated Equipment Depreciation — A Productivity and Growth Enhancer

Despite the complexity of dynamic economic models and the disparity in forecasts and theories, most economists, conservative or liberal, appear to agree on a few principles and practices when debating about national economy: the nation needs faster economic growth without inducing inflation; more savings breed more investment; higher investment fuels economic growth; federal deficit reduction is a national priority; and tax-cuts must be paid for so that deficit reduction is not jeopardized.

"...to work on the legislative tax code of an asset so that the tax life will be equal to or less than its economic life."

Many also agree that the U.S. manufacturing sector is vital to the nation's security and economic prosperity. According to the report of Northeast-Midwest Congressional Coalition, manufacturing accounts for 31 percent of all economic activity, generating three times as many new jobs as the service sector.

However, today's business investment is barely keeping ahead of depreciation on existing factories and equipment. Estimates show that the net business investment in recent years is at 2 to 3 percent of Gross Domestic Product (GDP), down from 10 to 11 percent in the 1960s.[1] Spurring business investment is pivotal to the long-term economic growth rate. Reportedly, raising the long-term growth rate by just one percentage point from 2 percent to 3 percent, could produce a massive pay-off in wages, living standards and economic security.[1]

As challenges to manufacturing competitiveness continue at home and abroad, the U.S. manufacturing sector must constantly strive for increased productivity. It is understood that productivity is equally driven by the quality of workers who perform the job, as well as the capability of equipment and machines used to do the job. Without the right equipment, even the best work force cannot deliver the desired results.

Looking at our industry — the surface mount packaging and assembling portion of the industry as well as printed wiring board fabrication — both segments have undergone and continue to face changes in factory-floor technology in response to the hierarchial upstream and downstream demands in the electronics industry. Manufacturing efficiency is reliant upon capital equipment to put new technologies to work.

Because of technological changes and global market demands, the SMT and PWB manufacturers must stay ahead of the curve and modernize their production facilities with agile and state-of-the-art equipment. However, under today's legislative environment, the cost of installing or replacing capital equipment is disproportionately high for U.S. manufacturers compared to their counterparts in other industrialized nations. This situation not only affects the growth of U.S. business but also its survival.

With this obvious disadvantage in the capital-intensive manufacturing business, what can be done and how should it be pursued to make it better? The IPC has approached the issue head-on as one of the main agenda items in its Public Policy Council in representing members as well as the industry.

What is the Specific Issue?

Current law allows for a five-year rate of depreciation, based on data back to the 1970s. With rapid technological changes in the electronics industry, the IPC Public Policy Council Tax and Competitiveness Committee is pursuing legislation to reduce the depreciation schedule of PWB and surface mount manufacturing equipment from five years to three years, which is more in line with actual useful life. The five-year depreciation schedule virtually survives the useful time of most equipment.[2,3]

Why?

The U.S. Electronic Manufacturing Service Industry (EMSI) capital equipment expenditure totaled about $1.5 billion in 1995 and will increase 25 percent in 1996. U.S. PWB equipment expenditure was about $420 million in 1995 and will increase 6 percent in 1996.[2,3]

Reducing the depreciation period to three years will increase the investment in modern equipment and facilitate the adoption of new technologies, thus maximizing manufacturing capability. This in turn allows the manufacturers to strengthen their competing ability in the international market. Most other industrialized nations offer some incentives to boost local manufacturers' capability, in the form of tax credits, low-cost loans, or shorter depreciation schedules. For example, Japan allows 80 percent depreciation in the

first year, Malaysia and Taiwan 32 to 33 percent and the UK 25 percent, compared with 20 percent in the United States. China allows accelerated depreciation in three years.

Furthermore, setting tax life longer than economic life is a disincentive to industrial expansion. The goal is to work on the legislative tax code of an asset so that the tax life will be equal to or less than its economic life.

How?

Amid the dramatic political time in balancing the budget and reducing deficit, it is imperative to consider the impact on U.S. Treasury when proposing any legislative changes. An obvious question to ask is "What is the cost to the Federal Reserve by changing accelerated depreciation of SMT and PWB equipment from five-year to three-year?" In other words, how will the new legislation be financed? Does this legislation largely pay for itself?

According to the IPC Briefing paper, the net present value of the payment stream will impact the U.S. Treasury by $39.5 million. When considering this relatively minuscule dollar figure with the effects of the increased investment on economic growth in a dynamic mode, the accelerated depreciation of SMT and PWB equipment would potentially pay for itself.

If the industry takes the lead to link the investment, competitiveness and economic growth altogether, it will be able to effectively open dialogue with legislators.

To this end, IPC Public Policy Council and members have made congressional visits and presented IPC's position on accelerated depreciation to legislators at the IPC Capital Hill Day event on June 17 and 18, 1996 in Washington, D.C.

To be statistically sound, the positive impact of accelerated depreciation for SMT/PWB equipment needs to be substantiated by continued and sustained efforts. The efforts should be directed to the establishment of the equation that incorporates the variables of investment, productivity, job creation, economic growth and the role of manufacturers to the national economy. Sharing your tangible results or your perspective will certainly build up the database that the industry urgently needs. With your input, many SMT/PWB manufacturers and their supporting suppliers will benefit. Moreover, the SMT/PWB industry's contribution to the national growth will be further enhanced. SMT

REFERENCES

[1]"Let's Get Growing," *Business Week*, July 8, 1996.

[2]IPC Public Policy Issue Brief, June 1996.

[3]IPC Press Release, July 1996.

DR. JENNIE S. HWANG, an *SMT* Editorial Advisory Board member.