QUARTERLY FORUM
Financial Crisis Monitor
Impact on Global Electronics
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State of the Solution

Solution	Status: January 2009	Electronics Industry Implications
Fiscal Stimulus Overall	A stimulus package was published on January 15, with contributions from the incoming Obama administration and three House Committees: Appropriations, Ways and Means, and Energy and Commerce. The Bill totals approximately $850 Billion, roughly twice the cost of the Iraq War, to be spent over the next two years. It can be divided into three main components: • Spending Programs: $394 Billion • Tax Relief: approximately $275 Billion • Unemployment and other Gov't payments: Approximately $200 Billion	The entire package will stimulate U.S. consumer demand, and will therefore have some positive impact on electronics purchasing.
Fiscal Stimulus: Direct Spending	Proposed stimulus spending is very highly oriented toward IT programs – very good news for the electronics industry as a whole. Of the $394 Billion in proposed spending $34 Billion (almost 9%) is directly appropriated for high tech projects, and another $54	Of the 77 direct appropriations proposed, 19 are directed to high tech and 18 have substantial high tech components. Electronics opportunities are highlighted in the table below. Appropriations are for a two-year period, and are shown in $ millions.

Billion (14%) is appropriated for projects with a substantial high tech component.

Segment	Hi Tech	Includes Hi Tech
Networking Systems (medical data systems, broadband, and wireless)	$26,696	$25,100
Consumer (D-to-A converters for TV and energy star white goods)	$950	$0
Industrial and Instrumentation	$500	$24,250
Automotive (focus on batteries)	$2,400	$700
Military, Aerospace, and Homeland Security	$1,200	$4,500

Fiscal Stimulus: Tax

The "American Recovery and Reinvestment Plan" published by the Ways and Means Committee has two key provisions supporting OEM and EMS companies:

Accelerated Depreciation. Extension of the 2008 program that allows companies to accelerate depreciation schedules. Companies can immediately write-off 50% of the cost of capital assets.

5-year carryback of net operating losses. This provision extends carrybacks from two years to five. Companies can carry up to five years of losses forward for each of the succeeding twenty years after the lose was incurred.

Tax relief measures are largely directed at individuals. They are likely to have a positive impact on electronics consumption, comparable to the impact of the 2008 stimulus plan, which is to say, appreciable but not large.

Business tax relief provisions will be much less valuable to the electronics industry than direct spending. For the whole economy, overall value of the two provisions are estimated at:

- Accelerated depreciation: $5 billion
- 5-Year carryback: $17 billion

both over a ten-year period.

Monetary Policy	Slowly coming under control. The Fed's virtual zero interest rates and avalanche of loan guarantees seem to be finally impacting rates and availability of lending in the real economy. Mortgage rates are falling, after a year of rising despite falling LIBOR rates. Yields for "investment grade" company debt has finally moved down, Lower grade debt is also beginning to fall in price, though much more slowly. Lower grade (high yield) debt remains difficult to obtain and uneconomical, so the debt crisis, the primary driver that pitched the U.S. and European economies into recession, is still at work, exacerbating and prolonging the downturn. Borrowing levels are low for three reasons: • Banks are indecisive about lending because the value of their assets has not been resolved • Credit worthiness standards have risen • Both consumers and businesses are less interested in borrowing due to the recession. Monetary policy is making halting inroads against these factors.	A few of the larger EMS companies (Flextronics, Jabil) and more of the larger OEMs have debt coming due this year, and some may have trouble meeting debt covenants because of cash flow problems. Downstream, corporate customaries and telecoms are reducing or postponing infrastructure projects, in part due to borrowing constraints.

Regional Spotlight

Fourth quarter PC sales, reported by Gartner, are an indicator of overall regional electronics market health. Unit sales figure obscure a significant downturn in revenue, as overall ASPs fall and consumers choose low-priced netbooks.

	Q4 PC Unit Growth	Comments
U.S.	-10%	Postponed state gov't and education sales were a big negative driver; likely to be addressed by stimulus package.
EMEA	+ 4.9%	Enterprise sales weak; consumer sales strong but heavily tilted toward netbooks.
Asia Pacific	+1.8%	China 0.8%, India 2.2%., Japan 7%.
Latin America	+10%	Currency devaluations v. US$ have led to a shift toward domestic supply.

Segment Spotlight

	Key Market Events
Computer 	IDC reported WW growth in PC unit sales at 10% over 2007, factoring in sharp reductions in Q4 against relatively strong growth in the first three months. Against a backdrop of sharply lower ASPs. Also from IDC: the cost to produce netbooks will drop around 15-20% this year compared to that of mid-2008 mainly due to drop in the prices of both panels and processors, according to a Chinese-language *Economic Daily News (EDN)* report.
Consumer 	Foxconn highlighted wireless modules for game consoles as a growth opportunity. Overall, the company appears to be multiple smaller opportunities against a backdrop of reduced unit volumes in major contracts.
Telecom	Several Japanese handset manufacturers are exploring plans to expand outsourcing in order to address international markets. Companies in discussion with CM manufacturers reportedly include Sharp, Fujitsu, Kyocera, and NEC. http://www.digitimes.com/news/a20090115PD209.html

Compal shipped 38 million handsets in 2008, 20% below latest projections, and also 20% below 2007 unit sales. However, revenue increased, due to shift in product mix toward more expensive smart phones. (Company)

Nortel bankruptcy filed. The final end of this substantial telecom infrastructure company has been expected and will not have a major impact on CM suppliers, according to Digitimes.
Compal shipped 38 million handsets in 2008, 20% below final projections and

Forecasts by several industry analysts predict that handset sales could fall by between 4 and 27 per cent compared with 2008, depending on the severity of the expected global recession.   This would be the first year since 2001 that handset sales contracted. http://www.ft.com/cms/s/0/968d59e4-a393-11dd-942c-000077b07658.html

The developing recession differs from 2001; that was an industry-driven recession that hit communications infrastructure providers most directly. This is a consumer-led downturn that will disproportionately impact handset sales.

Automotive

On the demand side, the automotive industry has been assaulted by the recession, reduced access to consumer credit, concerns about brand viability, volatile gasoline prices, and global warming concerns.

On the supply side, the industry has been damaged by inability to borrow, and may be significantly impacted by bankruptcies within a very interdependent supply chain.

However, U.S. and European governments with substantial automotive industries appear to have reached a consensus that they cannot let the major companies fail (though they have not yet settled on a type of solution). In the U.S., the fiscal stimulus plan includes substantial incentives for R&D and consumption of alternative fuel cars, with an emphasis on battery technology.

A plausible scenario over the next several years is emerging that relatively positive for electronics manufacturers: Governments will keep main line automotive OEMs afloat with loan guarantees and bail-outs. Government investments in alternative fuel technologies will accelerate the historical growth in electronics content as a percentage of vehicle BOM, and accommodative monetary policies will restore access to credit for consumers. Under this scenario, the electronics industry will still see a sharp drop in automotive segment revenue in 2009 and H1 2010, but will see a strong recovery and an improved growth path thereafter.