EREconomics

Boeing layoffs usher in new phase of production collapse

by Richard Freeman

On Dec. 2, Boeing Corp., the world's largest aircraft-maker, and America's 11th-biggest company and largest exporter, announced that it will lay off an additional 20,000 workers, on top of the 28,000 layoffs it had announced in August. Boeing will implement 38,000 of these firings in 1999, and 10,000 in the year 2000. The 48,000 layoffs represent 20.2% of Boeing's total workforce of 238,000.

Three other American production sectors are also being crushed: steel, oil, and farm equipment, arguably among the most vital sectors in the economy.

Outside the United States, a parallel collapse of the physical economy is under way: German, Japanese, and Swiss machine-tool orders have plunged, world steel production is falling, and sales by major automakers in Asia are headed straight down. Further, the prices of many basic commodities, from oil and natural gas to copper and grain, are hitting their lowest levels in a decade or two. A world physical economy that is shrinking buys fewer of the basic commodities needed to supply human existence, thus creating a seeming "oversupply of commodities in the market," and falling prices.

Since late summer, the world physical economy has entered a new phase-shift downward. Any report that the United States "could" or "is about to enter a recession," is a tale retailed by the London-controlled financial press, and is buncombe. The United States has been in physical economic contraction for the past 30 years; it has now shifted into a new violent lurch downward, within that overall falling trajectory.

What this means is that the world financial disintegration, which 18 months ago began ravaging the economies of East and Southeast Asian nations, and then spread to Russia and Ibero-America, is now hitting the so-called advanced economies of the United States and western Europe. This means snowballing layoffs, and lower living standards in the advanced sector. The firm of Challenger, Gray & Christmas, Inc., which tracks layoffs, reported on Dec. 7 that during the

first 11 months of 1998, American businesses laid off 574,629 workers, the second worst year recorded during the 1990s. Worse, between April and November, the U.S. manufacturing labor force lost one-quarter of a million jobs.

Once the economic unravelling reaches a critical stage, the physical economy falls below breakeven, imploding upon itself. This point, economist Lyndon LaRouche has forecast, may be reached during the first months of 1999.

However, the implosion of the physical economy will blow out the world speculative bubble. It has been the voracious appetite for loot, characterized by the \$150 trillion derivatives market, that has sucked the lifeblood from the physical economy, which can no longer provide the loot to keep the speculative bubble afloat. Thus, the accelerating rate of physical economic breakdown intensifies the rate of disintegration of the world financial system, in a self-feeding cycle.

We examine the scope of the Boeing layoffs, and then at the contraction in America, in steel, oil, and farm equipment. We then look at the process of production collapse in Europe and the rest of the world. Finally, we look at the resulting growth of layoffs.

The economic collapse is accelerating

In 1996, Boeing acquired the defense and space operations of Rockwell International for \$3.1 billion, and in August 1997, carried out a \$16.3 billion merger with the defense and civilian aircraft producer McDonnell Douglas. As a result, Boeing is the largest builder of civilian aircraft in the world, producing 65% of the world's large planes (100 seats or more); the largest builder of military aircraft in the world; and the number-one supplier of goods and services to both the Pentagon and NASA.

In the early 1990s, the U.S. airline industry had been in a tailspin. As it came out of it, it had a large backlog of needed planes. In 1995, the average age of planes in American airline

EIR December 18, 1998

TABLE 1
Boeing's employment sites, and number of workers

Washington State	99,700
California	41,900
Wichita, Kansas	21,340
St. Louis, Missouri	21,000
Philadelphia, Pa.	5,660
Other locations*	43,000

^{*}In the other locations, Boeing maintains significant levels of employment in Florida; Alabama; Tulsa, Oklahoma; Texas; Tennessee; Utah; and Canada. Source: Boeing Corp.

fleets stood at 14 years, much older than the average 1.1 years in 1961, making the fleet less safe. The industry placed orders with Boeing. Boeing also heavily courted the foreign market for civilian aircraft. Steve Lewins of Grunatal & Co. investment company reported, "Boeing sells more than 60% of its planes overseas." A large share of the overseas market consisted of sales to Asian air carriers.

During late 1997 and early 1998, Boeing attempted to gear up production, but could not meet the delivery schedules. Two reasons for this were that Boeing had fired or let go many of its experienced workers during an earlier period, and now was forced to hire inexperienced workers to replace them, and second, Boeing had installed a "just-in-time" inventory and parts replacement system, which left it, predictably, with shortages of parts throughout its production process by 1998.

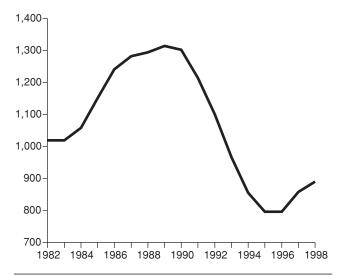
Beginning in 1997, the global financial disintegration had a severe impact on Asian nations. By May-June 1998, Philippine Airlines announced plans to suspend flights on two-thirds of its 69 destinations; Cathay Pacific announced layoffs totalling more than 1,500 employees; and Garuda Indonesia announced that by 1999, its fleet will be down to 45 planes, from 57, with all of its most modern planes gone. Many Asian airlines "deferred" orders placed with Boeing, some to the year 2001 or beyond. Many Asian airlines did not call them cancellations, because they would lose their deposits for the planes, which can be a large sum of money. Yet, as a spokesman for the Aerospace Industries Association admitted on Dec. 3, unless conditions radically improve, the deferrals are really disguised cancellations.

This past June, Boeing admitted that Asian airline companies had deferred the purchase of 60 of Boeing's flagship 747 jumbo jets. On Dec. 4, a Boeing spokesman revealed that the number of deferred orders of 747s and other types of Boeing aircraft is now more than 100. Orders of 747 jets by Asian nations account for 40% of all Boeing 747 orders worldwide. In turn, sales of the four-engine 747s account for nearly half the operating profit of the commercial jet division, by far Boeing's largest division.

By fall, Boeing was cutting production: Earlier this year, Boeing had been producing five 747s per month; it is now producing 3.5 planes per month, and will cut that back to two

FIGURE 1
Aerospace industry employment

(thousands of workers)



per month by the end of 1999. The production of the newer Boeing 777s will be slashed from seven per month now, to five per month by the end of 1999, and so on.

The August layoffs of 28,000 had two principal causes: cost-accountant "job rationalization and downsizing" of the Boeing and McDonnell Douglas workforces following the merger, and the cancellation of orders by, primarily, Asian airlines. On Dec. 2, largely as a result of the intensification of the worldwide financial disintegration in Asia, Boeing announced an additional 20,000 layoffs.

Boeing has 36 job sites in the United States, and four in Canada, at which it employs 100 workers or more each. According to a Boeing spokesman, Boeing has already let go 5,400 workers of the planned reductions through firings and attrition. **Table 1** shows the principal locations of Boeing employment of its remaining workforce.

The ripple effect of the layoffs

Boeing's cuts in production will wreak devastation on the U.S. economy on many levels. First, its workforce of machinists, engineers, etc. represents one of the most highly skilled labor pools in the world. Indeed, the aerospace-defense sector represents an important potential for increasing the social surplus and scientific discoveries for the whole society. Now, a sizable chunk of that is being shut down.

Second, Boeing's cutback in employment will affect the employment of the entire U.S. aerospace sector. **Figure 1** shows all aerospace industry employment in the United States, including in civilian, military, missile, and space vehicle production. At its high point in 1989, it was 1.31 million; it then fell sharply by more than 400,000. It started to recover after 1996, but the new Boeing layoffs will knock it down

further. The number of workers producing only civilian aircraft fell starting in 1990, reached its low point in 1994, and then rebounded some. Boeing employs 118,700 out of its current workforce of 232,600 in the civil aircraft division. At least 30,000 of these workers will be laid off as part of the planned layoffs.

As the process sheet of the bill of materials shows, the cuts in Boeing production will produce cascading layoffs and production shutdowns in related sectors of the economy. This gets to the internal workings of the physical economy: No product is produced simply at the point of production. Rather, it depends on a process of prior stages of production, each of which works up products from a still earlier stage of production. The production of any product depends on a network of production, infrastructure, and so on, that extends several times around the globe. The bill of materials traces back each component in the production process to the several earlier stages of production that are essential for its own production.

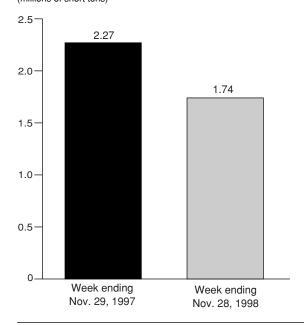
A 1992 input-output study of the aircraft industry by the Commerce Department, showed that the first level of the bill of materials includes products ranging from engines, fluid power products (like fluid power pumps), ball and roller bearings, forgings, and castings, to avionics-electronics, machine tools, aircraft seats, and paints and varnishes, which are essential to the process of aircraft production. According to Boeing president Harry Stonecipher, in a speech at the Boeing Supplier Conference on Oct. 1, two-thirds of the value added in Boeing planes and products comes from Boeing's suppliers. Boeing is a heavy out-sourcer. If the employment is proportional, then, if Boeing employed at its peak 238,000 workers directly, its suppliers would employ somewhere around 476,000 workers. That would mean that the number of workers making Boeing planes and products is 714,000, the size of the workforce of some small countries.

Further, Boeing's supplier industries, in turn, depend on the receipt of products, usually in semi-finished or raw materials form, produced by other workers. One source calculated, as a rule of thumb, that for every worker employed at Boeing directly, there are three other workers employed in the general economy. Boeing's cutbacks would have the same leverage—the firing of 48,000 workers could entail the firing of 144,000 workers in the economy, mostly in basic production. For example, the president of a United Steelworkers of America local recently reported that 21 of his workers, who had been producing titanium for use in Boeing jets, are to be laid off. This is the ripple effect extending outward from basic industry.

On Dec. 8, the aircraft maker Northrup Grumman, which makes fuselage components for Boeing 747 jets (and \$1 billion of whose \$9 billion in annual sales is tied to Boeing's commercial plane production), announced that it will lay off an additional 1,100 workers in response to Boeing's layoffs announced on Dec. 2. This will increase the number of layoffs that Northrup plans through the year 2000, to 9,100 workers, or 16.9% of its total workforce.

FIGURE 2

U.S. raw steel production falls 22% (millions of short tons)



Other industrial sectors

But aircraft production is only one of the major industries in the United States that are collapsing.

Farm equipment: Due to the collapse in the Asian economies and the fall in U.S. farm income, U.S. farm equipment production and sales are tumbling. Comparing October 1998 to October 1997, American farm equipment producers' sales of two-wheel-drive tractors of more than than 100 horsepower are down 28.3%, sales of four-wheel-drive tractors are down 48.6%, and sales of combines have plummeted 38.4%.

Recently, Russia cancelled an order of 400 combine-harvesters from Case Corp. of Racine, Wisconsin. Because America produces one-third of the world's farm equipment, and exports 25% of that, making it the world's largest exporter of this equipment, it strategically affects the world's ability to produce food sufficient for its existence.

Steel: U.S. raw steel production for the week ending Nov. 28, at 1.736 million short tons, is 22% lower than the 2.226 million short tons produced one year ago (Figure 2). U.S. steel producers are suffering from two interconnected problems, both originating with the world economic collapse: there is a declining demand by U.S. industries for steel, and several steel-making nations—Russia, Ukraine, Brazil, India, Japan—faced with falling markets for their product in Asia, and in several cases desperate to earn foreign exchange to pay off debt and/or stay afloat, are selling large amounts of steel and steel products in the United States at prices below those of U.S. producers.

From the early 1970s through 1994, on average, the level

Economics EIR December 18, 1998

TABLE 2
Automobile sales in Asia, 1997 vs. 1998*

	1997	1998	% change
China	1,567,500	1,325,000	-15.5%
India	766,500	615,000	-19.8%
Indonesia	378,200	80,000	-78.8%
Malaysia	404,800	190,000	-53.1%
Pakistan	52,500	42,600	-18.8%
Philippines	144,400	63,000	-56.4%
South Korea	1,532,900	635,000	-58.6%
Taiwan	473,800	440,000	-7.1%
Thailand	363,200	155,000	-57.3%
Other	96,000	72,800	-24.2%
Asia/Pacific	5,780,700	3,618,400	-37.4%

*projected.

Source: Economist Intelligence Unit.

of U.S. steel imports was 15-20 million short tons per year. This shot up to 25-30 million tons in 1994-97. Through the first three quarters of 1998, U.S. steel imports have averaged 43 million tons, on an annualized basis. The steep fall in U.S. raw steel production means plant shutdowns and layoffs. For the week ending Nov. 28, steel capacity utilization was 71.8%, compared with 93.8% a year ago.

Oil drilling and production: On the New York Mercantile Exchange, the price of oil for January delivery has dropped to below \$11.25 per barrel, its lowest level in 12 years. In west Texas, America's largest oil producing region, today only 70 oil rigs are operating, compared to 220-250 at the beginning of the 1998.

Four critical industries—civilian aircraft, farm equipment, steel, and oil production—are in free-fall. The four, with their supplier-feeder industries, through the process sheet of the bill of materials, are producing a multiplier effect of production shutdown and layoffs.

Western Europe

The same process is also occurring in western Europe and Japan. One can identify some of the key industries where this is occurring:

Machinery and machine tools: According to the Federal Association of German Machine Builders (VDMA), the sector's foreign orders fell 35% in September, compared to the year before. For third quarter 1998, foreign orders were down 21%. The decline in export orders was particularly strong with respect to Asia, but has started to weaken also in Ibero-America, the United States, and among members of the Organization of Petroleum Exporting Countries. The same applies for Switzerland, whose machine exports for the first nine months of 1998 fell 66% to South Korea, 49% to Malaysia, 45% to Indonesia, and 18% to Asia as a whole.

As for machine tools, Japan is the world's number-one machine-tool producer and exporter. In the first eight months of this year, Japan's exports to South Korea, Taiwan, and

TABLE 3
U.S. manufacturing labor force, 1998
(millions)

Month	Number of manufacturing workers	
January	18.824	
April	18.827	
June	18.780	
October	18.631	
November	18.584	

Source: Bureau of Labor Statistics of Department of Labor; EIR.

Hong Kong were down 36%. Comparing October 1998 to October 1997, Japan's internal domestic orders for machine tools were down 49.5%.

Steel: September 1998 crude steel production of the 66 major reporting steel-producing nations, was 61.3 million tons, down 6.3% compared to the year before.

Automobiles: Sales by the world's biggest automakers, many of which are European and Japanese, of cars to Asia are in a nosedive. Based on the trends of the first eight months of the year, the *Economist Intelligence Unit* estimated sales in Asia (excluding Japan) for the entire year, compared to last year (**Table 2**). Overall, auto sales in Asia are expected to fall 37%. Some nations' auto industries, such as those of Malaysia and Indonesia, are in jeopardy.

The industrial collapse will have a heavy impact as Europe launches the euro on Jan. 1.

Growing unemployment

The expanding industrial shutdown in the West is building wave after wave of layoffs. Challenger, Gray & Christmas reported on Dec. 7 that in October, 91,531 jobs were slashed in the United States, followed by the elimination of 51,642 jobs in November. The firm also reported that during the first 11 months of 1998, American businesses laid off 574,629 workers, the second worst year recorded during the 1990s.

But the most serious threat is the loss of manufacturing jobs. **Table 3** documents that U.S. manufacturing employment remained steady between January and April of this year. But during the seven months since April, there has been a great loss of manufacturing employment, including 47,000 jobs in November. The drop in manufacturing employment takes account of only a small amount of the Boeing layoffs in the works.

In November 1998, the manufacturing sector of the U.S. labor force comprised just 13.5% of the labor force, down from 31.7% in 1943.

The seismic shakeup in the industrial sectors in both the United States and Europe indicates that the depth of the crisis cannot be solved by simple "anti-cyclical" recipes. This represents the implosion of the entire "economic engine" of the West.