



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

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May — 2013

Casteel Commentary

The Casteel Commentary reflects on changes in the producer price index for steel castings and for capital equipment. Interestingly there appears to be a 30 year capital investment cycle since the first records in 1947. This suggests that the recent pricing action and capacity shortfall should provide the opportunity to recapitalize and modernize our industry.

Annual Meeting

The 111th Annual Meeting will be held in Half Moon Bay, CA, September 7-10, 2013. The Board of Directors looks forward to your attendance and participation in this educational and networking meeting and welcomes the opportunity to share new knowledge of the steel casting industry with you. Half Moon Bay is easily accessible, located just 30 minutes from San Francisco International Airport.

Please note that discounted registration ends June 3. More information and the meeting registration package can be found at <http://www.sfsa.org/meetings/annmtg13>

Upcoming Meetings

SFSA Specifications Committee – May 21 Indianapolis, IN
Contact Malcolm (blairm@sfsa.org) for questions or to RSVP

Eastern Division – June 13-14 MetalTek, Sandusky, OH
Contact David (poweleit@sfsa.org) for questions or to RSVP

Board Meeting – June 11-14 Milwaukee, WI
Contact Raymond (monroe@sfsa.org) for questions or to RSVP

Research Review – July 16-18 Schiller Park, IL
Contact David (poweleit@sfsa.org) for questions or to RSVP

Western Division & Heavy Section – August 22-23 Columbia Steel, Portland, OR
Contact David (poweleit@sfsa.org) for questions or to RSVP

North Central & Future Leaders – October 2-4 Milwaukee, WI
Contact David (poweleit@sfsa.org) for questions or to RSVP

Plans for Southern Division, Safety/HR, Investment Casting, and High Alloy Product Group are too preliminary to announce at this time, but will be at a later date.

Market News

Steel casting bookings began to decline on an averaged year over year basis in mid-summer 2012. Shipments followed in early fall and since then the industry has in general seen declining orders and production. Hardest hit is large capital equipment for mining and construction. While orders for stainless (High Alloy) castings began to contract sooner, shipments have continued strong through January of this year.

It is not clear if stainless casting will avoid the slowdown since they tend to lag the rest of the casting market so would ordinarily they should begin slowing. The low price of natural gas and the revitalization and new capital spending in the chemical and petroleum industry my support continued demand and allow this segment to avoid the worst of the downturn.

As long as commodity prices remain firm at reasonable levels (more than \$3 a pound for copper and \$90 a barrel for oil) consumable products should continue to be in demand. The strong stock and bond markets may not be sustainable since their valuations are based on extremely low interest rates and the expectations of further market advances and not so much on underlying valuations or future cash flows.

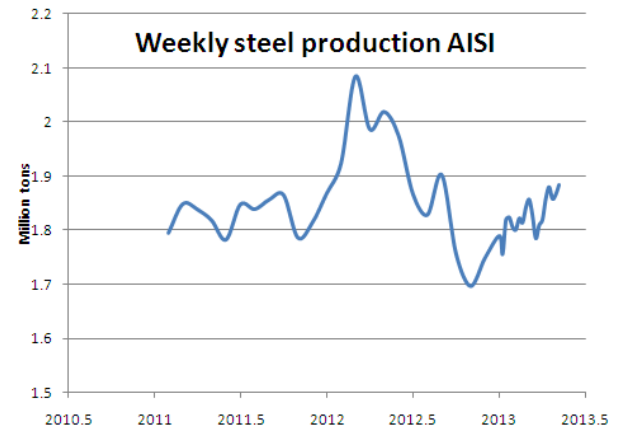
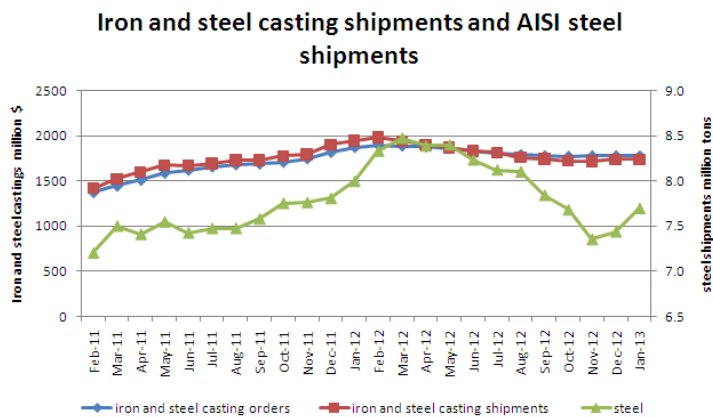
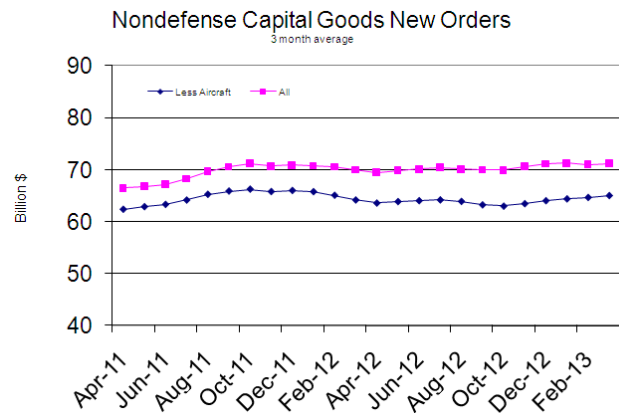
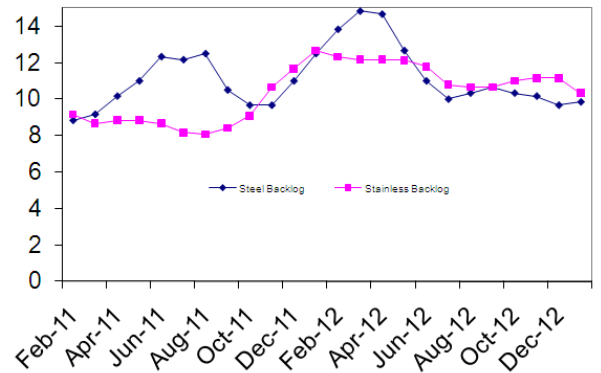
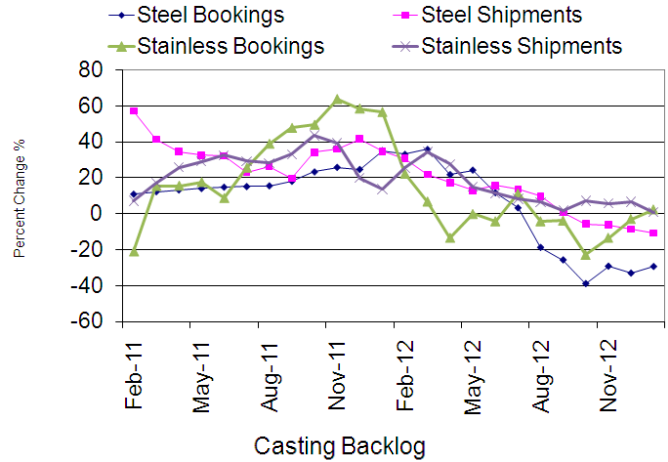
Casting Backlogs remain strong but have declined from higher levels experienced in early 2012.

Iron and steel casting orders and shipments tracked by the DOC Census show a modest decline. Steel Shipments tracked by the AISI show a more dramatic decline for most of 2012 with improving business in early 2013. This tends to be a leading indicator for steel casting production.

The orders for Non-defense Capital Goods are relatively flat through March 2013. This indicates no added decline but also no growth in demand.

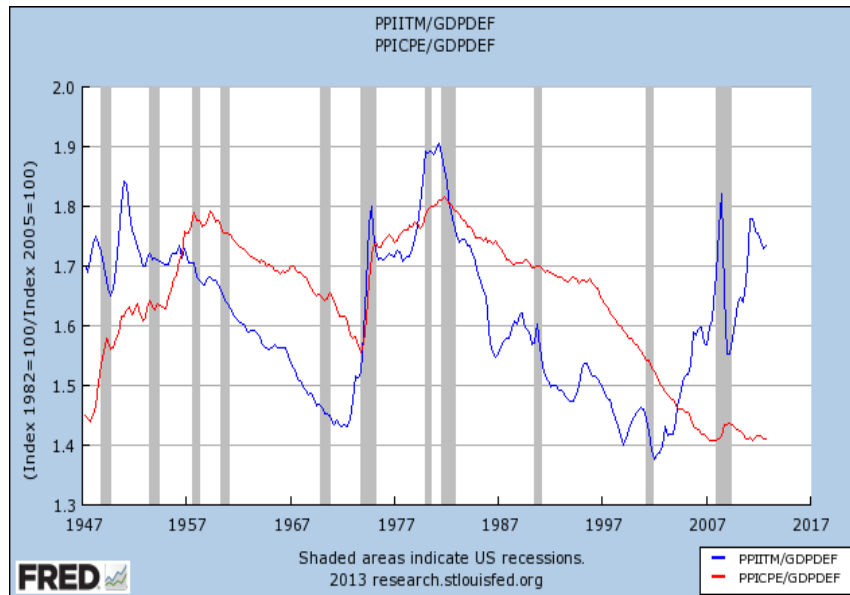
It is reasonable to expect a stagnant market for steel casting products for the bulk of 2013 with improving conditions likely late this year or early next year. There may be a significant re-valuation of the stock and bond markets that could depress further the market and make the anticipated recovery slow in arriving.

At the Cast Expo SFSA lunch discussion, the members asked if it might be possible to have a more timely indication of current and future business conditions for steel foundries. In the last few years, steel production appears to lead steel casting production by 3 to 9 months. Included in here is a new graph for the latest weekly steel production numbers. The downturn in steel production from early 2012 certainly looks ahead of our downturn in steel castings. The graph shows an upturn in steel production starting at the end of 2012 and continuing through early 2013 suggesting that we may see improving business over the balance of the year.



Casteel Commentary

Suppliers of components to capital equipment builders are in a difficult market position. They are in some ways captive to the customer base without the financial backing or corporate support of a rich parent company. Capital equipment builders must be large to have the resources to produce their equipment but this means that often they are one of only a few customers at the top of a supply chain with multiple and competing suppliers. They have an asymmetric knowledge advantage since they deal individually with the supply chain



and know the competitive terms and conditions, pricing, and quality available from all the willing suppliers in the marketplace. The suppliers are forbidden from comparing notes and understanding the competitive position and supply chain realities that are obvious to the purchaser.

One hint of the challenging price and supply relationship between small component suppliers and large equipment builders can be gained through examining the producer price index information published by the BLS.

In the graph from FRED (the St Louis Federal Reserve Website), the producer price index for intermediate materials (PPIITM) is compared with the producer price index for capital equipment (PPICPE) since 1947. These values are normalized by dividing by the average for the period and converted to relative value by dividing by the implicit price deflator for the gross domestic product (GDPDEF). In the post WW2 and Korean War era, intermediate material values began at a relatively higher level based on their average compared to the capital equipment producers. Since both graphs are normalized by their averages, the graphs imply nothing about whether they started at an appropriate level or ended at the correct level.

Intermediate materials and capital equipment as is typical in stable economic times declined in relative value. Intermediate materials declined earlier and by a greater degree. In the 60s and 70s, intermediate materials shot to much higher levels accompanied by soaring demand, the perception of scarcity and inflations driving investment in non-financial assets. During this capital equipment boom, capital equipment producers and intermediate material suppliers prospered while most consumers suffered. Much of the capacity needed for the overall economy was built and installed during this surge in value.

At the end of this period, capital equipment was able to retain more of the higher value and managed to decline at a slower rate. Intermediate suppliers were liquidating the excess capacity installed through inadequate pricing, effectively selling their excess investment to their customers. This led to not only price stability in our industry but led to real price reductions that made capital investment difficult.

This continued until the recession of 1999 that after 2001 deepened resulted in the liquidation of the obsolete capacity in our and other industries. The growth of global demand coupled with the lack of investment and capacity in the global capital infrastructure led to significant rises in the prices of materials.

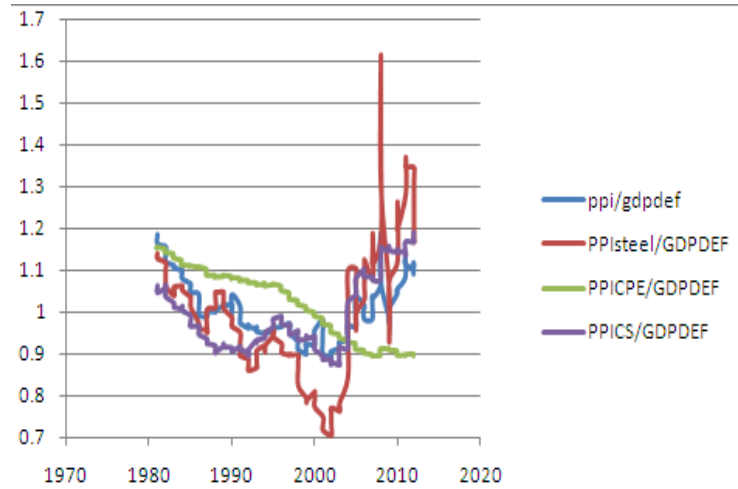
This can be seen in the graph of several ppi indexes since 1981. These indexes are re-normalized by their averages over the period and divided by the implicit price deflator. The graph shows the decline in relative value of capital equipment (ppicpe). In contrast after 2003, all the other components graphed increase sharply. The ppi for all iron and steel products (ppisteel) has the sharpest rise.

Steel casting ppi (ppics) has a more modest rise and finally matches the total rise of all steel products. These indexes are closely matched by the ppi for everything (ppi).

Steel casting prices according to the BLS statistics are not out of line with price increases by other producers and are less severe than for other steel products.

One interesting note in considering the first graph from FRED, there appears to be a long term cyclical re-capitalization in the economy of about thirty years. It is possible that we need to recapitalize the infrastructure but we over invest during the boom and upswing and then liquidate that investment slowly until growth overtakes declining capacity and obsolescent plants. Then we experience sharp price increases as the supply is inadequate and this triggers the profits and demand required for new investment.

Raymond



**STEEL FOUNDERS' SOCIETY OF AMERICA
BUSINESS REPORT**

SFSA Trend Cards (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Jan	Dec
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Carbon & Low Alloy

Shipments	3.6	-10.8	-16.5	-21.0
Bookings	-10.9	-29.5	-34.0	-42.4
Backlog (wks)	11.2	9.8	9.5	9.5

High Alloy

Shipments	10.9	0.8	0.0	0.0
Bookings	-5.7	2.3	-5.0	0.0
Backlog (wks)	11.1	10.3	8.5	10.5

**Department of Commerce
Census Data**

Iron & Steel Foundries (million \$)

Shipments	1,806.2	1,773.7	1,769	1,768
New Orders	1,793.6	1,737.3	1,780	1,746
Inventories	2,122.8	2,114.3	2,105	2,125

Nondefense Capital Goods (billion \$)

Shipments	70.3	71.3	70.6	71.8
New Orders	71.4	72.2	73.4	71.9
Inventories	170.0	173.5	174.5	172.6

**Nondefense Capital Goods
less Aircraft (billion \$)**

Shipments	63.8	64.4	64.1	64.5
New Orders	63.5	64.9	67.6	63.3
Inventories	120.1	121.0	120.9	120.7

Inventory/Orders		1.9	1.79	1.90
Inventory/Shipments		1.9	1.89	1.87
Orders/Shipments		1.0	1.05	0.98

American Iron and Steel Institute

Raw Steel Shipments (million net tons)	8.0	7.7	8.2	7.5
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