

## Fall and Rise of Polish Shipbuilding Industry

K. Wróbel

*Gdynia Maritime University, Gdynia, Poland*

J. Frankowski

*University of Gdańsk, Gdańsk, Poland*

**ABSTRACT:** The hereby paper describes a brief history of fall and rise of Polish shipbuilding industry in the 21st century and confronts stereotypes about it using data available from variety of statistical sources as well as impressions regarding its current and future condition presented by different authors, including industry representatives. The main goal of the article is the confrontation of political statement with the statistical data and current sectoral trends within the shipbuilding industry in Poland. Firstly, we introduce a historical background in a scope of economic transition in Poland. Then, socio-political issues are addressed together with economic condition using statistical data. Lastly, the newest trends and perspectives are analyzed. Eventually, we come to conclusion that despite encountering great difficulties and arguments about its collapse from political actors, shipbuilding sector did manage to retain its strong position in Polish economy.

### 1 FROM SOLIDARITY TO BANKRUPTCY

The history of shipbuilding in today's Poland can be dated to 1850s when the first docks have been constructed in then Prussian territory – in the cities of Gdańsk and Szczecin (Danzig and Stettin in those days). The purpose of the plants was to equip an emerging Prussian economy with fast and modern steel ships. After the World War II, production continued in those factories with new important shipyard being developed in Gdynia. Back in 1980s, shipbuilding industry in Poland was one of the biggest branches of its economy and the country was one of the largest producers of ocean-going vessels in the world. Huge shipyards used to employ thousands of people each, providing Cold War-time military of Warsaw Treaty countries with ships and merchant fleet with cargo vessels in order to improve international trade relations of Poland. They were also major export facilities and sources of foreign currencies for ever-shortage economy.

Centers of social and political life, one of them became known as a place where a legendary 'Solidarity' was born. The outside world first heard more about the Polish shipyards in August 1980, when shipworkers' unions in The Gdansk Shipyard went on strike in defence of Ms. Anna Walentynowicz being dismissed for political reasons. What have first looked like simple demonstration of unrest have finally led to the first successful negotiations on human rights between citizens and socialist government. Production resumed and continued even under the martial law, but an overall economic conditions of Poland tended to worsen year by year. Eventually, socialist government has been overthrown during legislative election of June 4th, 1989.

As of September 1988, shipbuilding industry in Poland consisted of 5 large shipyards: Gdańsk 'Vladimir Lenin' Shipyard, Gdynia 'Paris Commune' Shipyard, Gdynia Naval Shipyard, Szczecin 'Adolf

Warski' Shipyard and 'Northern Shipyard' in Gdańsk, of which the first one was the biggest, employing up to 15.000 people. Ship repairs were being conducted in several smaller enterprises, of which Gdańsk 'Józef Piłsudski' Shiprepair Yard, 'Nauta' in Gdynia and 'Gryfia' in Świnoujście were the most notable. All those huge factories were complemented by a great number of different plants around the country, including 'Hipolit Cegielski' – a ship engines' manufacturer, located in Poznań. As much as 50.000 employees had been working in shipbuilding and repair industry that time not to mention the sub-contractors. It is difficult to describe its revenue or contribution to Polish GDP since various issues spoof that image: emphasis on providing foreign currencies for the central-controlled economy instead of being guided by economic calculation, political relations with Soviet Union and its share in number of tendered vessels for instance (Doerffer 2008).

Despite having contracted many vessels to be built in next couple of years, shipyards found it difficult to operate in a period of transition from centrally-controlled economy to free market. As early as on October 29th, 1988 it was announced by the central government that Gdańsk 'Vladimir Lenin' Shipyard shall be closed down due to its reportedly poor financial condition, even though such condition was rather a result of external factors – absurds of socialist economy in most cases - influencing its day-to-day operations as well as strategic planning process (Doerffer 2008). At that point, there were several vessels at various stages of construction in the docks, scheduled to be delivered in next few years, with ongoing negotiations on constructing a few others. Polish state was the owner of the shipyard and that had made a big impact and finally attributed to the fact that for the politicians it seemed generally easier to shut down the production rather than implementing a recovery plan. Collapse of Soviet Union and cancellation of its military orders, overemployment, low working efficiency (Dragicevic 2007) and poor management practices had a great influence on the process (Forkiewicz 2010, Doerffer 2008).

Variety of actions have been taken in order to keep the birthplace of Solidarity - and a workplace of future Polish President, Mr. Wałęsa – running. Those included an offer from Mrs. Barbara Piasecka-Johnson - wife of cosmetics magnate to buy and recapitalize the entire shipyard (no results), merging with Gdynia Shipyard (unsuccessful), seeking a reliable investor overseas (little interest) and eventually – privatization by selling the shipyard to Ukrainian businessman.

## 2 COLLAPSE

Similar, very complicated processes took place in other shipyards along Polish coast which finally led to the point where despite a huge public aid, great shipyards ceased to exist (Musielak 2001). It must be noted, however, that most of entities operating in Poland had undergone a similar 'shock therapy' to a certain degree, including heavy industry (shipping,

military industry, automotive, coal mining) and other minor companies across the country. Although the objective data indicates significant improvement of economic situation in Poland in last 25 years, many citizens miss the old times and claim the transition process to have negative consequences (Grosfeld 2008). One of the most popular arguments against the model of transition, frequently brought up by left-side academics is the increasing economic stratification of Polish society (Kowalik 2012). For high-skilled workforce, whose position in Poland on the social ladder was higher than in other communist countries (Domanski 1997) it could be particularly painful loss.

That is why for many Poles, especially residents of Gdynia and Szczecin it was extremely difficult to accept the decision made by European Commission (EC) in November 2008, ordering shipyards in those cities to:

- repay the public aid received in the past – which was practically equal to instant bankruptcy since the aid was estimated at level of more than 2 billion EUR in years 2004-2008 (UOKIK 2008) OR
- sell all of their assets allocating funds to repay the creditors – buyers would then not be liable to pay any debts of the former borrowers.

The government chose second option by passing the so-called 'Shipyard Special Act'. The vast majority of shipyards' property has been sold to the private companies including their real estate, dry docks and berths. Some of those private companies operated in shipbuilding, ship repairing or metalworking before and used this opportunity to expand their activities. However, the public opinion in Poland still hardly believes that former state-owned shipyards exist in some way, reduced to handful of smaller and largely private plants and make profits of its basic activity. Many researchers and press authors share that point of view (Forkiewicz 2010, Valioniene 2013). EC's decision to claim public aid to Gdynia and Szczecin shipyards as illegal and withdraw any further support leading to final shut down of those, together with rather blurry, ineffective attempts to save the yards and unclear business relationships between state-managed agencies and private stakeholders led the public opinion to conclusion that the industry no longer exists and that unspecified politicians are to blame.

## 3 SHIPYARDS AS POLITICAL ISSUE

For many years, large shipyards were perceived as a working horses of Polish coastal regions with almost every family having some member working for the yard or company some-how cooperating with it. Polish Ministry of Economy's estimates of 2007 had shown that shipbuilding created approximately 155.000-165.000 jobs, with only 25.000 of which in shipyards themselves. Perception of shipyards in Gdańsk, Gdynia and Szczecin as a centers of economic, political and social life together with a long - and in many cases difficult to understand (Forkiewicz 2010) - process of transition from megafactories to smaller plants led the society to impression that the shipbuilding industry in Poland no longer exists with its potential lost forever.

The shipyard and its symbolic dimension are still very important for accumulating political capital. The big workplace is for many people the sign of wealth and stability. Moreover, the idea of 'Solidarity' is still very attractive to evoke for the biggest Polish political parties. The ethos of solidarity is especially crucial for the Law and Justice - right-wing, socially-oriented party, strongly collaborating with powerful trade union - NSZZ Solidarnosc. Members of the Law and Justice as well as the union activists stood up against the European Commission's decision about the state aid.

But shipyards are not only seen in the public debate on the national level, but also during political campaigns for the local authorities. The argument about the downfall of shipyard industry was raised by present mayor of Gdansk, Mr. Pawel Adamowicz when he accused his political opponent, Andrzej Jaworski (former president of The Gdansk Shipyard) of irrational management of shipbuilding industry. But on the other hand, Mr. Adamowicz reacted against the investment demolitions of an old shipyard heritage not earlier than after the internet strikes, critique from opposition and some of the experts' voices. Social reaction can suggest that heritage and the identity of Gdansk on the basis of shipyard can still be very close to city's inhabitants. There is also evidence which proved that the shipbuilding cranes are essential part of this town's landscape (BRG 2012).

The shipyard as a political issue emerged also during the president campaign at 2015. One of the candidates, Andrzej Duda promised the stronger public intervention inside industry sector and reintroducing the production of modern ships (PAP 2015). But is this industry really in need of reconstruction and stronger influence of the state? The answer being confrontation of this political statement with the statistical data and current sectoral trends are the main aims of this publication.

#### 4 POLISH SHIPBUILDING INDUSTRY TODAY

Statistics clearly indicate the number of ships built gradual regression since the fall of communism in 1989. The number of vessels was not correlated with the tonnage, which was the highest during first decade of the twenty first century. This situation

dramatically changed in 2010 - as a consequence, at the end of 2013 Polish shipyards launched only 12 vessels. If we compare those data with the sixty or more ships annually during the end of 1970s, we should probably talk about the downfall of the industry (Figure 1).

But data on the basis of the number of ships and the tonnage do not catch structural change which has begun in Polish industry sector. Nowadays, ship production is the second gross added value branch as well as it holds the first position taking into account the number of employees within maritime sector (Brodzicki, Zaucha 2013). It can be explained through the change of shipyards' activities. Since 2009 they have concentrated on repairs and maintenance rather than the construction of new vessels (Figure 2.). Paradoxically, the unfavorable decision of the European Commission might have arrived in the best possible moment to do the transition, which forced creation of a much more flexible business model of the industry.

The economic shake-out caused by the global financial crisis struck Poland one year later than the global economy as a whole. Industries, particularly dependent on export and the condition of foreign companies felt it the most. Shipbuilding industry is typical highly vulnerable sector on economic crisis and its impact was visible in Pomorskie (Masik, Rzycki 2014). The evidence can be decreasing level of employment (2009) and a very low growth rate of average salaries compared to the national average (Figure 3). However, shipbuilding industry quite quickly started to make up for financial losses.

Paradoxically, the financial crisis could influence smaller orders positively, that can be covered by more flexible shipyards dedicated for repairs. Shipowners rather minimize the risk of new investments and focus on maintaining current resources in good condition during precarious economic situation. Evidence from UK suggests that the marketing, innovation and customer quality are safer solution and the most popular strategy of the companies during times of crisis (Roberts 2003). Since 2010 the shipbuilding sector noted stable gross financial income as well as increase in employment and working efficiency (Figure 4). While the percentage of people working in the shipyards is not as high as before the transition, salaries (particularly in 2011 and 2012) have been growing faster than the national average.

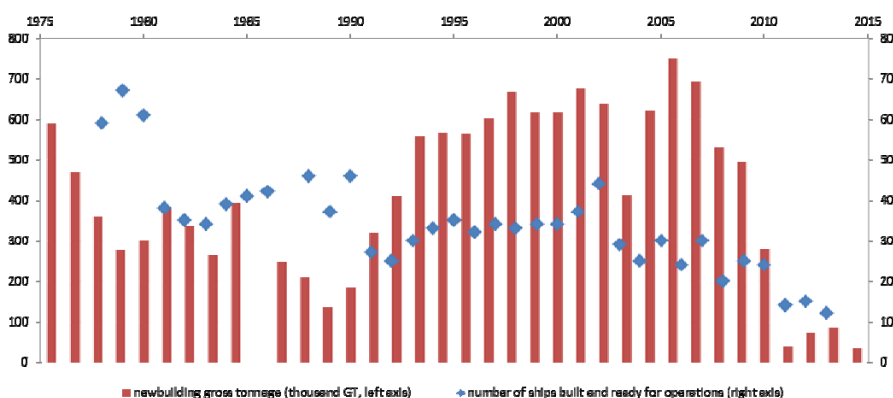


Figure 1. Production of shipbuilding industry in Poland (1976-2013). Own compilation based on (Maritime Economy - statistic review)

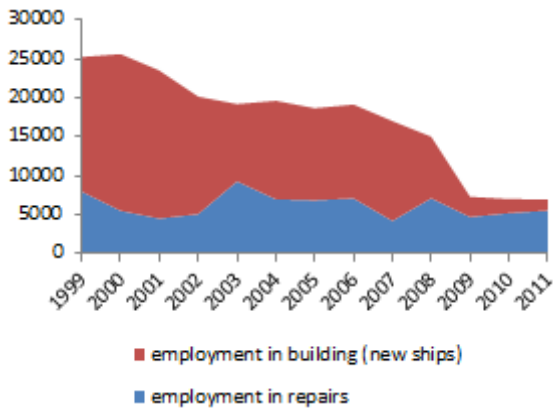


Figure 2. Employment in shipbuilding industry. Own compilation based on (Maritime Economy - statistic review)

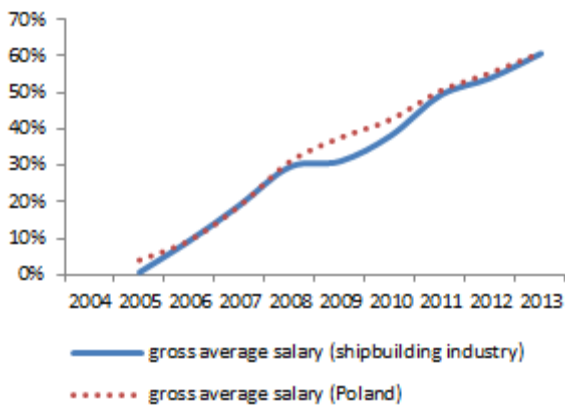


Figure 3. Growth of salary in the shipbuilding industry (2004 = 0%). Own compilation based on (Maritime Economy - statistic review)

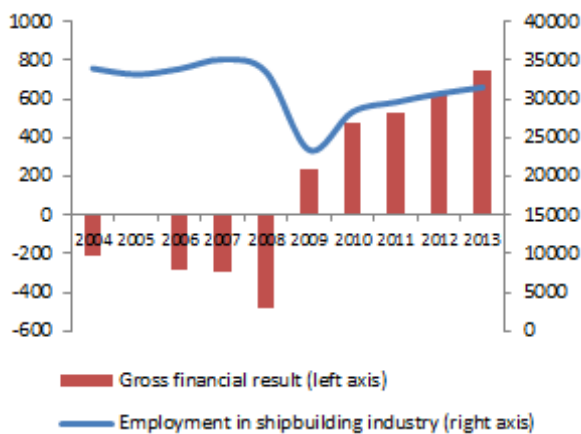


Figure 4. Financial results (PLN, millions) and employment in shipbuilding industry. Own compilation based on (Maritime Economy - statistic review)

Structural changes also enforced stronger specialization and extension of shipbuilding industry's service offer. Since 2009, there has been an increase in complexity of ships launched (PAP 2014), which may also be an indicator of growing innovation potential of the industry (Compensated Gross Tonnage CGT to Gross Tonnage GT relation, a 'complexity density factor', Figure 5). It would be risky to compare this indicator to the gross profit, which shows the higher competition from the other countries. Those enterprises cut down their margins in order to protect their working places, economic

competitiveness and gain a share in the most profitable sectors (FMI 2003). Further aggressive price war could suddenly regress very well now growing shipbuilding sector in Poland as well as in other countries. But all those data clearly show that only in 2008 the collapse of the industry took place, but since 2009 the shipbuilding industry has started recovery.

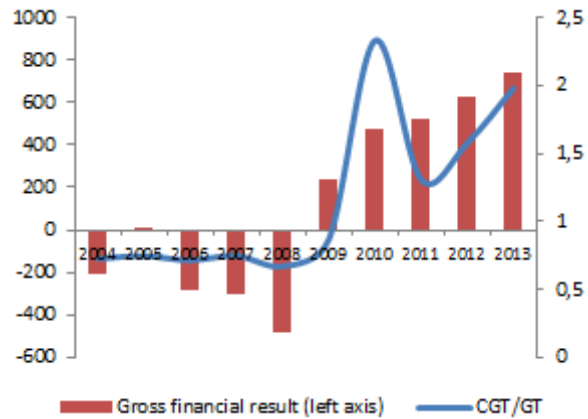


Figure 5. Financial results (PLN, millions) and the complexity factor of built ships in shipbuilding industry. Own compilation based on (Maritime Economy - statistic review)

## 5 FROM 'GOLIATHS' TO 'DAVIDS'

The neoliberal market economy prefers more flexible companies, free from sentimental issues. In order to find their place in a global industry, a new model of shipbuilding activities had to be developed. After years of struggle, merging and dividing, new hopes and falls, numerous attempts of privatization, the industry seems to have reached the point in which situation is steadily improving. The huge plants have been shut down and new emerged.

The Gdańsk Shipyard is now only a shadow of its former power, jointly owned by state-managed Industrial Development Agency (25%) and Ukrainian businessman and politician Mr. Serhij Taruta (75%).

In opposite to the previous case, the neighbouring Remontowa Holding is now the biggest company of 'blue economy' in Poland. Gdańsk Ship Repair Yard 'Remontowa' has been privatized in 2001 by its managers. In 2003, it came into possession of nearby Northern Shipyard, which has been renamed to 'Remontowa Shipbuilding' 8 years later. The holding, consisting of several additional companies, now employs some 8000 men and performs some of the most ambitious projects in Polish shipbuilding history (Figure 6).

Gdynia Shipyard was closed on May 30th, 2009. Almost all of its properties were sold and now various companies operate within its former premises, including but not limited to Crist and Nauta shipyards (both owned by PGZ - Polska Grupa Zbrojeniowa and managed by closed-end investment fund 'MARS', having 35% share in the first and 100% in the latter of the two). A special economic zone 'Baltic Port of New Technologies' has

also been established in order to attract new investors.



Figure 6 LNG/LEG/LPG carrier 'Coral Methane', launched in 2009 in Northern Shipyard - nominee to RINA's 'Significant Ship of 2009' award. Source: Remontowa Shipbuilding.

Farther north, Gdynia Naval Shipyard is now a state-owned company in bankruptcy liquidation with PGZ planning to take it over. Defense spending reductions in 1990s had a great influence on its present condition. The facility made attempts to regain financial credibility by recapitalization from Industrial Development Agency, carrying out ship repairs for private shipowners and continuing cooperation with the navy including newbuildings.

In both Szczecin and Świnoujście, there are facilities of Marine Ship Repair Yard 'Gryfia', company owned by 'MARS' fund, with history dating back to 1950s. It conducts various ship repairs, offshore and subsea structures construction with a big share of fishing industry. Moreover, metalworks plant of 'Bilfinger MARS Offshore' in Szczecin is under a final stage of construction and is about to commence operation in July 2015.

The above shipyards work for shipowners or managers from all over the world. They cooperate with numerous companies, mainly based in Poland but also from different parts of Europe and other continents. Such cooperation stretches from basic welding contracts awarded to micro companies in the region to multi-million dollars deliveries of scrubbers – devices aiming in reducing ship's environmental impact. Such a system, where a big part of ship's production cycle is outsourced, enables shipyard's managers to increase flexibility of the company and reduce the costs. It is a common solution for the shipyards around the world.

This model and other factors (high electricity and labor costs for instance) led to the situation in which construction of relatively simple vessels such as dry-bulk carriers, where a lot of steel is used, not so much know-how is needed to be developed and relatively little number of high-tech devices is required to be installed, was found unprofitable. Particularly, the competition with Far-East shipbuilding companies of China, Japan or South Korea would be difficult as the latter might be subsidized by state in order to keep the working places as it happened in South Korea in 1990s (Doerffer 2008). For simple cargo vessels production, labor and material costs have a great influence on unit's final price since it is difficult to introduce machines at some stages of production process (i.e. final assembly and outfitting) and a great

number of employees conducting relatively simple tasks is required.

## 6 CURRENT TRENDS IN THE INDUSTRY

European companies were unable to compete with Far East ones so that a new market niche required to be explored and it now appears to be a highly advanced units: cruise ships, LNG-propelled ferries, wind farm construction vessels and men-of-war including submarines (FMI 2003). Polish private-owned shipyards also correctly identified this trend and commenced a cooperation with shipowners demanding the highest quality of the delivered vessels, and those in turn were of the types in which a great complexity of ground-breaking technical solutions was involved. Even though offshore sector in Poland is highly underdeveloped in compare to Western Europe, shipyards did manage to gain know-how and experience in such projects by taking advantage of research facilities and former expats' experience.

The chance here might be a model of innovation support, with the main actor on the regional level. European Union requires declaration from every region about smart specialization on the basis of the diagnosed innovative, endogenous potential. It is one of the ways to use Cohesion Policy for investment support dedicated to the industry sector (Gawlikowska-Hueckel 2014) but now the region is apparently more important player than in period 2007-2013.

In 2015 Pomorskie Region chose four smart specializations, including off-shore, port and logistic – technologies. It shows that the regional authorities still find the marine industry as the important player. Also shipyard representatives were actively involved in preparing regional strategic programs and joint statement as the Polish Maritime Cluster or Polish Chamber of Maritime Commerce. Probably, funds from European Regional Development Fund (either national/European or regional) should be the most popular source for financing the increasing innovative potential of shipyard industry and this stream would rather be stable during next few years.

It must be underlined, however, that oil&gas sector – one of the most important clients' economic situation is highly dependent on oil prices, which in turn are liable to significant change. Therefore, shipowners and managers operating in this sector tend to cut the orders or decide not to execute optional parts of the contracts whenever oil prices drop below certain level or situation changes due to any other external factors - unstable condition during financial crisis for instance (Steinerts 2012). From shipyards' point of view, negative effects of such phenomenon can be reduced by entering new markets, which are offshore wind farms construction, fishing/fish farming or ferries. Vessels built for these sectors can be also technologically advanced, especially the latter ones where considerable progress can be noticed due to operators' pursuit of achieving economic and ecological advantage in conjunction with the so-called 'sulphur directive'.

Another niche in which the shipbuilding-related plants seek their chance is construction of various industrial objects for both onshore and offshore clients, namely partly-equipped vessel's hulls, wind towers, cranes etc. The expertise gained in assembling technologically-advanced ships can be utilised in such projects and location inside or near the harbours facilitates the logistics of structures weighing up to several hundred metric tonnes.

Nevertheless, the industry faces some difficulties. A great constraint in the development is associated with lack of qualified manpower which may seem strange considering unemployment rate in Poland of more than 10%. With largest shipyards shut down, many welders and other very experienced technicians decided the leave and seek employment overseas, in Norway or United Kingdom in many cases. With shipbuilding still perceived as 'collapsed' and 3D-industry (Dirty, Dangerous and Demeaning), not many young wish to join even despite the rise in salaries and relatively high unemployment rate among young Poles (Dajczak 2008, Susmarski 2009). Factories are forced to employ foreign workers from Ukraine, India or North Korea, even at a price of risking accusations of supporting communist regime in Pyongyang.

## 7 CONCLUSIONS

Despite significantly negative political and social reception of privatization, shipbuilding industry is now in very good condition. Economic crisis enforced specialization in the shiprepairs and even though employment and production (measured by GT) declined sharply, they do not need public support from the state. The offshore technologies became an opportunity, with the crucial role of the demand from energy and petrochemical sector. Probably this is area in which shipyards need some kind of indirect public support, because similarly to the whole economy, the model of prizing competition will dry up eventually. It seems that parallel to the privatization, shipyards became stronger connected with regional supply base. Moreover, smaller size means more independence and flexibility, so the international contacts are probably the most dynamic ever. Regarding to this, the political comments about the collapse of the shipyard industry seem unjustified.

But the issue for the further research are the social consequences of shipbuilding industry' transformation especially connected with its specific identity. Even though the real growth in the economic field is observed, any specific information about the social side of industrial sector's opinions, sentiments, significance and the quality of work inside new dynamic and private companies is widely known. For some people 'Stocznia' ('the Shipyard') evokes the memories about the united, big and stable production company. Now we still know very little from the citizen's and employee's point of view to the preferred model of the industry and it is definitely the area to find proper, scientific evidence.

## REFERENCES

- Gdansk Development Office, (Biuro Rozwoju Gdańska, BRG). 2012. Studium krajobrazu obiektów na terenie Młodego Miasta ze szczególnym uwzględnieniem dźwigów. Raport z badań społecznych. Gdańsk: BRG.
- Brodzicki T. & Zaucha J. 2013. Study on Blue Growth, Maritime Policy and EU Strategy for the Baltic Sea Region. *Working Paper* no. 003/2014 (011) ver. 2, Sopot: Institute for Development.
- Dajczak, K. 2008. Przemysł stoczniowy w Polsce i na świecie. *Prace Komisji Geografii Przemysłu* (10): 123-129. Warsaw.
- Doerffer, J.W. 2008. Życie i pasje. Wspomnienia vol. IV. Gdańsk: Fundacja Promocji Przemysłu Okrętowego i Gospodarki Morskiej.
- Domański H. 1997. Mobilność i hierarchie stratyfikacyjne. *Elementy nowego ładu*. Warsaw: Wydawnictwo IFiS PAN.
- Dragicevic, D. 2007. A political economy of shipbuilding in post-socialist transition: comparative study of Croatia and Poland. Budapest: Central European University.
- First Maritime International Ltd. (FMI). 2003. Overview of the international commercial shipbuilding industry. Newcastle: FMI.
- Forkiewicz, M. & Tubielewicz, A. 2010. Social and economic aspects of the transformation of Pomorskie region against the background of changes in the Polish economy in the years 1990-2010. *National and Regional Economics VIII*. Herl'any.
- Gawlikowska-Hueckel K. 2014. Polityka przemysłowa i spójności wobec planów reindustrializacji Unii Europejskiej. *Wnioski dla Polski, Gospodarka Narodowa* 5 (273)
- Grosfeld, I. & Senik, C. 2008. The emerging aversion to inequality: evidence from Poland 1992-2005. *Ann Arbor, MI: University of Michigan*.
- Kowalik, T. 2012. What went wrong with the transformation? Social failures of the new system. *Warsaw Forum of Economic Sociology* Vol. 3, No. 2 (6): 9-26. Warsaw: Warsaw School of Economics.
- Maritime Institute MI. *Maritime Economy - statistic review*. Gdańsk: Maritime Institute.
- Masik G. & Rzycki S. 2014. Resilience of Pomorskie region to economic crisis. *Bulletin of Geography Socio-economic Series*, Vol.25: 129-141. Toruń: Nicolaus Copernicus Univ
- Musiela, J. 2001. Procesy restrukturyzacji w przemyśle okrętowym (na przykładzie Stoczni Szczecińskiej S.A.). *Prace Komisji Geografii Przemysłu PTG* (3). Warsaw.
- Office of Competition and Consumer Protection (UOKIK). 2008. *Pomoc publiczna dla stoczni*. Warsaw: UOKIK.
- Roberts, K. 2003, What strategic investments should you make during a recession to gain competitive advantage in the recovery? *Strategy & Leadership*, Vol.31 Iss:4: 31-39
- Steinerts, G. 2012. Effectiveness of the European Maritime Policy Instruments. *TransNav: International Journal on Marine Navigation and Safety of Sea Transportation* 6(2): 271-276. Gdynia: Gdynia Maritime University.
- Susmarski, P. 2009. Pracujący w przemyśle stoczniowym – diagnoza stanu obecnego i analiza trendów. *Pomorski Przegląd Gospodarczy* 2.
- Valioniene, E. & Druktenis, A. 2013. Analysis of shipbuilding industry market in Lithuania and Poland. *Journal of Maritime Transport and Engineering* 2(1): 74-81. Riga: Latvian Maritime Academy.
- Polish Press Agency PAP. 2014. Ekspert: polski sektor stoczniowy osiągnął światowy poziom technologii. <http://www.bankier.pl/> Retrieved 10-07-2015.
- Polish Press Agency PAP. 2015. Duda: musimy odbudować nowoczesny przemysł stoczniowy. <http://hutnictwo.wnp.pl/> duda-musimy-odbudowac-nowoczesny-przemysl-stoczniowy, 250434\_1\_0\_0.html. Retrieved 09-07-2015.