



Working Paper

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of the Shipyards in the Republic of Croatia**

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The Financial Performance, Restructuring and Privatisation of the Shipyards in the Republic of Croatia

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Abstract

The shipbuilding industry in Croatia has a long history. Positioned on the Adriatic sea, Dalmatia has had a long tradition of maritime commerce and shipbuilding as well as other supporting activities. Over time the Croatian shipbuilding industry has been accorded different levels of strategic importance and support by the government. However, over the period from 2011 to 2015 the industry has undergone significant restructuring and faced changes to its competitive environment. Furthermore, it has received enormous levels of state support especially as Croatia prepared for the accession to the EU. The main objective of the paper is to explain the main characteristics of the processes in which the shipyards have been restructured, of the liabilities that the state has assumed pursuant to restructuring contracts and the liabilities and responsibilities that the new owners have taken on. Explained in particular will be the impact of restructuring on employment, wages, orders and the value of jobs contracted and deliveries.

Keywords: shipbuilding, government guarantees, fiscal risks, restructuring, Croatia.

JEL Codes: L33, L31

1. Introduction

Shipbuilding in Croatia has a long tradition. The favourable geographical locations along the Adriatic coast were crucial for the foundation of today's yards, which in the middle of the 19th and in the early 20th century were established as part of the naval arsenal of the Kingdom of Dalmatia (an Austrian crown country within the Habsburg Monarchy and the Austro-Hungarian Empire). Then, the shipyards proved to be successful in the construction of naval vessels, and during the years increasingly oriented towards the construction of commercial vessels. During that time, the foundations for the development of the shipbuilding industry in Croatia have been established.

However, the strategic importance of the industry was altered very soon. After termination of government relations with the Austro-Hungarian Empire, the shipbuilding industry was in the Kingdom of Serbs, Croats, and Slovenes (1918-1929) more or less ignored. Having 2,854 km of Adriatic coast and numerous good ports, it was expected that the state would strive to become a maritime country. Developed maritime affairs could have encouraged the development of the transport as a whole, boosting domestic and international trade as well as strengthening other industries. After all, all maritime countries have always been paying great care of developing their own merchant marine. However, the shipbuilding industry in that period was not considered to be strategically important and therefore did not develop and expand (Mirošević, 1992). Already at that time, Croatian shipyards were in crisis. Demand for sailing ships in the market begun to fade in favour of steamships. Croatian shipyards could not follow this trend due to its low technology base. In addition, the financing costs of Croatian shipyards were extremely high which forced shipyards to seek state support in terms of interest-free loans. Although this request was unsuccessful, funds were for the first time allocated to shipyards in 1926-27 (Mirošević, 1992). There was no significant shift in the development of Croatian shipbuilding industry until the formation of SFR Yugoslavia.

During that communist era (1945 to 1991) shipbuilding revived, and in 1988 Yugoslavia became the third country in the world according to the number of ships delivered (after Japan and South Korea) and the first one in Europe. Shipbuilding has become a recognizable industrial branch employing a large number of people and one of the indicators of SFRJ's power. However, shipyards became totally dependent on the government. Their production was characterised by low business efficiency, conditioned by very low labour productivity, where the most of the accepted jobs were not profitable, but for the sake of political circumstances, they always had orders and opened markets. It was clear that after the collapse of Yugoslavia shipyards will not be

able to operate independently, and that their business becomes questionable and uncompetitive compared to other shipyards in Europe and worldwide. In order to preserve the shipbuilding industry, shipbuilding has been recovered on several occasions (in 1991, 1995, 1998). In September 2000 the Government issued a decision on financial support to the largest Croatian shipyards to cover their debts and other financial liabilities from the past. This comprehensive and generous measure was not enough to restructure the sector in order to secure the sustainability of its operations in the long run (Kersan-Škabić, 2002).

The practice of subsidizing the shipbuilding confined to Croatia. Shipbuilding was significantly subsidized in France, Italy, Denmark, the Netherlands, the United Kingdom, Belgium and Germany. However, in the early 1990s, shipbuilding subsidies in the EU were drastically reduced. In most of the OECD countries, state aid was commonly channelled into sectors in decline (especially in the shipbuilding and steel industry) but this approach failed to sustain industries such as textiles in France, England and Sweden and the coal iron industries in France. It is worth noting however that the experience with subsidising industries in decline has not been negative in all cases. Japan, for example, is known for exit subsidization, whereby the state supports companies in coping with the costs of leaving the market that would otherwise be borne by the workers and employers themselves. Such restructuring becomes more socially and politically acceptable because within this strategy the government subsidizes the gradual abolition of capacity and the re-qualification of workers (Kesner-Škreb, 1995).

Croatia, unfortunately, did not follow good practices in this respect, but proved to be just another country unable to face market realities and the loss of national competitiveness in certain industries. This approach proved to be unsustainable in the long-run because dealing with the problems was only postponed with enormous fiscal costs for the state budget.

Today the production lines of the biggest Croatian shipyards include all kinds of merchantmen, floating docks, cranes, special purpose ships and warships, including submarines and all kinds of vessels. Shipbuilding has always been an important industrial sector, especially along the coast, in Istarska, Primorsko-goranska and Splitsko-dalmatinska counties. A large number of small and medium sized enterprises are contractors to the shipping industry, and its export orientation additionally enhances the importance of this branch of industry.

Although its economic significance is undisputable, the financial performance of the shipbuilding sector has been extremely weak and constantly supported

by the government. In its attempts to perform the rehabilitation and restructuring of the shipyards, from 1992 to 2017 the Croatian government has spent around 4 bn EUR (one quarter of the general government's annual budget). The aim of this paper is to explain the process that lays behind the rehabilitation and restructuring of shipyards and calculate total costs as well as implications of those costs on the long-term fiscal sustainability.

The second section deals with the economic performance of the shipbuilding companies and the calculation of the total costs of rehabilitation of shipyards. The third section lays down plans for privatisation and models of restructuring. The fourth section evaluates the total impact of restructuring and privatisation on the operations of the shipyards and the fifth section is the conclusion.

2. Economic performance of the shipbuilding companies

In Croatia there are two hundred and fifty nine firms engaged in the production of ships and boats. However, the focus of this paper is on the five biggest shipyards: Brodosplit, Brodotrogir, Uljanik, Viktor Lenac and 3. maj. In 2015, these shipyards had total sales of almost 330 mil. EUR and employed a labour force of almost 6,000 (see Appendix, Tables A.1 and A.2).

Table 1 - Structure of ownership of the shipyards in 2015 (in %) and year of privatisation

Shipyard	Biggest owners			Year of privatisation
Brodosplit	DIV - Brodogradnja d.o.o. (99.76%)	HGK (0.13%)	Uniq d.d. (0.07%)	2013
Brodotrogir	Kermas Energija d.o.o. (95.24%)	Small Shareholders (4.35%)	CERP/RH (0.23%)	2013
Uljanik	Small domestic shareholders (46.21%)	Croatia osiguranje d.d. (9.93%)	CERP/HZMO (7.74%)	2012
Viktor Lenac	Tankerska plovidba d.d. Zadar (36.95%)	Uljanik d.d. Pula (34.67%)	PBZ d.d. Custody account (8.13%)	1993
3. maj	Uljanik d.d. (85.46%)	Domestic natural person (12.44%)	Ljekarne Prima Pharme (0.89%)	2013

Note: Percentage of ownership is given in parentheses.

Source: Financial reports of the shipyards.

Until recently all five major shipyards were state owned but by the end of 2013, they had all been restructured and privatised. Viktor Lenac completed the restructuring and privatisation process in 1993. However the company went bankrupt in 2003 and was finally taken over by Tankerska plovidba of Zadar and

Uljanik of Pula in 2007 after lingering and exhausting bankruptcy proceedings. Uljanik was privatised in 2012. The largest proportion of equity in Uljanik is held by small domestic shareholders (46%). After the privatisation of Uljanik, it made a binding offer to take over 3. maj, and today Uljanik owns 85.5% of the formerly state-owned shipyard. Brodosplit was privatised in 2013 and is almost 100% owned by DIV brodogradnja d.o.o., and Brodotrogir (sold in 2013) is 95% owned by Kermas Energija d.o.o. (table 1). For a better understanding of the consequences of restructuring and privatisation it has to be said that DIV became the owner of Brodosplit in early 2013. A few months after that, Kermas energija took over Brodotrogir. In mid-2013, Uljanik (privatised in 2012) took over 3. maj.

Total revenue of those shipyards have decreased from 1,5 bn EUR in 2011 to 400m in 2015. The revenues of the shipyards in 2011 and 2012 were greater by the mere fact that state aids and grants they received were recorded as revenues. In other words – this was not the result of an increase in sales or profit margin. Accepted jobs were in most cases unprofitable but shipyards entered into such deals just to keep their employees busy. Moreover, contracts were often signed with short delivery deadlines, although it was obvious they cannot be reached. Consequently, shipyards were usually late with deliveries and had to pay penalties making the business unprofitable. By a reduction of the level of aids and grants, the revenues of the yards as well as their expenditures were reduced (table 2).

Total expenditures decreased after privatisation thanks to rationalisation of costs, dismissals and reduction of high financial expenditures brought about by high interest. Thanks to the high reserves of Uljanik, total shipyard expenditures rose in 2014, and fell for about 6,6% in 2015. In 2015, Brodotrogir, Viktor Lenac and 3. maj registered a profit. Although predictions were good, in 2015 Brodosplit recorded a disappointing record loss in last five years. Uljanik also recorded a loss. Revenues from sales of the biggest Croatian shipyards fell from 2011 to 2013, whereupon they rose to 324 mil EUR (Appendix, Table A.3).

Table 2 - Revenues, expenditures, profit/loss (before tax) of the shipyards from 2011 to 2015 (in million EUR)

		2011	2012	2013	2014	2015
Uljanik	Revenues	244	205	265	203	247
	Expenditures	243	215	252	269	256
	Profit/loss	1	-10	14	-65	-9
3. maj	Revenues	521	266	92	102	126
	Expenditures	191	123	94	130	107
	Profit/loss	329	143	-3	-28	19
Brodosplit	Revenues	513	467	175	67	55*
	Expenditures	279	112	107	87	76*
	Profit/loss	234	355	68	-19	-21*
Brodotrogir	Revenues	134	289	26	44	27
	Expenditures	115	48	26	43	23
	Profit/loss	18	241	0	1	4
Viktor Lenac	Revenues	48	34	37	48	70
	Expenditures	47	38	37	48	67
	Profit/loss	1	-4	0	0	4
Total	Revenues	1,458	1,261	503	363	400
	Expenditures	876	535	421	446	422
	Profit/loss	582	726	82	-84	-22

* unconsolidated financial reports.

Note: In 2013, 2014 and 2015 data for 3. maj are not aggregated for they are already shown in the Uljanik's financial reports.

Source: Consolidated audited annual reports of the shipyards from 2011 to 2015 (at group level).

Revenues from exports of the five biggest shipyards have been falling since 2012, but good results from 2015 are promising. In 2015, Croatia occupied 10th place (after China, South Korea, Japan, the Philippines, Romania, Vietnam, Brazil, Taiwan and the USA). China is at the top with 43% of the total market, then South Korea (29%) and Japan (21%). In 2015 Croatia accounted for about 0.23% of world production and in Europe accounted for 13% after Romania (57%), making it the second (Croatian Shipbuilding – Jadranbrod, 2015).

In the last few years a considerable decline in production has been observed. This is attributable to increased competition and greater EU pressures for restructuring of the shipyards. Another important factor in this regard has been the poor market for ships, which increased the need to differentiate production and to diversify away from shipbuilding. Thus, classic shipbuilding began to slide in the shadow of offshore projects such as wind farms, dams and energy containers. Expressed in compensated gross tonnage, there has been a significant reduction in the value of the ships delivered. (Appendix, T. A.5).

Compensated gross tonnage – CGT – is the unit used to measure output in shipbuilding. It is based on gross tonnage (GT) or DWT (deadweight tonnage), adjusted with the use of compensating factors relative to the complexity of the ship relating to hull, engines and equipment in relation to the kind and size of the ship. The most recent formula for the calculation of CGT unit is: $CGT = A \times gt^B$, where A is the factor of the kind of ship, *gt* is the gross tonnage of the ship and B is the ship size factor (OECD, 2007).

Attention has to be drawn to the absence of any orders made to Brodotrogir, which back in 2013 announced diversified operations, laying stress on ship servicing, maintenance and modifications, providing moorings at sea and dry dock facilities in the newly built marina the completion of which is expected in 2018. Brodotrogir obviously can hardly ensure continued operations by exclusive reliance on shipbuilding. 3. Maj obviously changed the strategy of doing large number of small ships with doing few large ships as its order book reduces.

**Table 3 - Rehabilitation of the shipbuilding corporations from 1992 to 2017
(in mil EUR)**

	Uljanik	3. maj	Brodosplit	Brodotrogir	Kraljevica	Total
Creditor rehabilitation 1992 – 2002*	347	351	519	152	70	1,439
Subsidies 2000 – 2005	90	53	81	24	8	257
Subsidies 2006 – IX. 2009	58	42	59	20	10	189
Called-on state guarantees 2008 – 2012 (inc. interest)	0	262	289	92	42	685
Assumption of liabilities on Feb. 29, 2012**	97	355	444	242	125	1,263
Total 1992 – 2012	592	1,063	1,392	530	255	3,832
Future aid 2012 – 2017 (planned)***	0	79	171	47	9	306
Total 1992 – 2017	592	1,142	1,563	577	264	4,138

* Rehabilitation in which the national budget took part to the tune of 6.17 bn kuna (0,83 bn EUR).

** Assumption of the repayment of debt and payment of liabilities for loans with state guarantees as of February 29, 2012, pursuant to the restructuring programmes accepted (liabilities relate to the period from 2003 to 2013), as follows: up to the amount of the claims of the shipyards against the Republic of Croatia on the basis of the compensation according to the Agreement and the write-off and transformation of liabilities for loans with government guarantees into a public debt above the amount of the claim of the shipyards on the basis of the compensation according to the Agreement.

*** Future aids for restructuring that would burden the state budget from 2012 to 2017. (For Brodotrogir and 3 maj, estimates are involved; Kraljevica – severance payments).

Source: Ministry of the Economy of the Republic of Croatia.

Although the shipyards are in private hands today, from 1992 to 2012 the state put more than 4 bn EUR into the rehabilitation of the shipyards – an average of about 0.2 bn EUR a year. Also it should be noted that from 2012 to 2017 it is planned to invest an extra 0.3 bn EUR into the shipyards – 0.06 bn EUR a year – which is planned to ensure financial stabilisation and enhance the prospects of operating as successful private corporations (table 3).

The *first rehabilitation of the shipyards* that were majority-owned by the state was carried out from 1999 to 2001. Under the terms of this rehabilitation, which cost 1.45 bn EUR, the government wrote off its claims against the shipyards and partially replaced them by equity in the new ownership structure. The following shipyards were rehabilitated: Kraljevica (1999), Uljanik, 3. maj, Brodosplit (2000) and Brodotrogir (2001). *The second rehabilitation of the shipyards* started in 2002 and by 2008 the government was supposed to provide 0.38 bn EUR worth of aid. However, after the implementation of the rehabilitation of 2002, the government did not continue with the rehabilitation programme. According to the Pre-Accession Economic Programme of 2004, the Government announced the privatisation of firstly just one and then of all the other shipyards by the end of 2004. This was not carried out, and the state just continued covering the losses of the shipyards.

In 2007, and much more so in 2010, a large part of state financial guarantees of the Republic of Croatia was issued to firms in the manufacturing sector, mostly for the debts of the shipyards. Between 1998 and 2015, 1.69 bn EUR of state guarantees were called on, the lion's share being accounted for by shipbuilding. As shipyards were privatised and restructured, and their debts covered by the state. The considerable reduction of shipyard liabilities after 2012 was the result of an administrative manoeuvre by which the government turned the shipyard debt of 1.26 bn EUR into direct public debt, and some of the liabilities into equity in the shipyards (Bajo and Primorac, 2011). Nevertheless, after a pause of two years, in 2015 shipbuilding once again became an important beneficiary of state guarantees (Appendix, Table A.4).

3. Plans for privatisations and models of restructuring

According to the provisions of Article 70 of the Stabilisation and Association Agreement, the restructuring of the shipbuilding industry was one of the important preconditions for European Union accession. As early as 2007 at the request of the EC, all the shipyards drew up restructuring plans, but the Commission considered them unsustainable and infeasible. On May 21, 2008, the government made a decision to privatise the shipyards, and from then three rounds of competitions for privatisation were held.

The *Competition for the first round of privatisation* (August 1, 2009) of all six shipyards was unsuccessful. In the *second round* (February 15, 2010) valid bids were received for Brodotrogir, Brodosplit and 3. maj. The *third round* of privatisation was carried out for the Kraljevica shipyard (November 3, 2010) for not a single bid was received in the second round, and for 3. maj (January 24, 2011) for the investor that appeared in the second round was rejected on account of its financial difficulties. In the assessment of the EC of December 14, 2010, Uljanik was no longer in difficulties because it had returned the state aids received, and the rules on state aids for rehabilitation and restructuring no longer had to be applied to it. The European Commission on January 24 accepted the Programme for the Restructuring of Brodosplit given by the investor DIV d.o.o. of Samobor, the conditions thus being created for getting into the phase of negotiations for the privatisation contract to be signed by the government and DIV.

On the day the negotiations with the EU were closed (June 30, 2011), the Agency for the Protection of Market Competition and the EC accepted the plans for the restructuring of 3. maj, Kraljevica and Brodotrogir, after which it was possible to start negotiating the preparations for the privatisation contracts. From then until January 2012, the Government made no significant advance in the restructuring of the shipyards, because of which the planned costs of restructuring were increased by about 133m EUR. In order to speed up the procedure, finally, decisions were adopted and models for restructuring and privatisation were made for Uljanik, Brodotrogir, Brodosplit and 3. maj. In July 2012, the government started up bankruptcy proceedings in Kraljevica shipyard.¹

In order to persuade the private sector to privatise the then heavily indebted shipyards, in 2012 the government assumed 1,2 bn euro of debt liabilities of the shipyards secured by state guarantees and transferred them to the debt of general government (table 3). The manner in which privatisation was carried out is interesting, to say the least. For in the 1990s, the state (as majority owner) made over to the shipyards the land on which they were sited. Since the shipyards carried out their activity in special purpose ports (shipbuilding ports) on the maritime domain, the state expanded the borders of the maritime domain. The reason for extending the coverage of maritime domain was the intention of the state, as owner, to carry out offsetting of reciprocal claims and debts (rights and liabilities) with the shipyards and write off their debts in exchange for restitution of the maritime domain (real property) on

¹ Retrospective of the process of the rehabilitation and restructuring of the shipbuilding industry in the Republic of Croatia, Ministry of Economy of the RC. www.mingo.hr

which the shipyards carried out their activities. In this way, the state protected itself from the risk that the new purchasers in the privatisation progress might become owners of valuable real estate. With this process, property law issues worth about 1.2 bn euro were settled.

The shipyards had their liabilities written off and the condition for privatisation was completed. According to Article 36 Paragraph 1 of the Act of Accession, all liabilities that the Government had assumed in the restructuring of the shipyards (all the state aids that the enterprises had received from March 1, 2006) were considered restructuring aid. The contribution of entrepreneurs to the restructuring plan out of their own resources had to be real, without state aids, and had to come to at least 40% of total costs of restructuring.

In the restructuring process, compensatory measures were taken whereby Croatia guaranteed to reduce the total production capacity of the enterprises, from the 471,324 CGT of June 1 to 372,346. By permanently closing slipways and by reducing their areas the entrepreneurs had to reduce their production capacity at the latest twelve months after signing the privatisation agreement. The total annual production of entrepreneurs was restricted to 323,600 GGT for a period of ten years, starting from January 1, 2011. Compensation measures were prescribed for the sake of neutralising the distorting effect of the aids given on the conditions of trade (market competition). The measures were prescribed so that Croatian shipbuilding (because of the large amount of state aids received) should not be able to achieve a privileged position as against other European shipyards.

The entrepreneurs were able to agree with the shipyards (whose production was curtailed) about the revision of individual restrictions on production, and on the basis of binding agreements to determine how much of their own individual production quota (in terms of CGT) they could make over to each other. In so doing, they had to respect the total annual restriction of production to 323,600 CGT. Interestingly, not a single shipyard overstepped the maximally permitted annual amount of production.

Table 4 - Contribution of the state and shipyards' own contributions to restructuring according to the privatisation contracts (in million EUR)

Shipyard contributions								
	2012	2013	2014	2015	2016	2017	2018	Total
Brodosplit	0	17	45	60	68	71	54**	316
Brodotrogir	0	18	41	39	35	Other*	0	132
3. maj	0	7	25	27	25	Other*	0	84
Government contributions								
Brodosplit	54	63	35	20	14	12	0	198
Brodotrogir	0	12	21	10	0	0	0	43***
3. maj	0	18	31	25	19	18	0	111

* Amount remaining to fulfilment of the condition of at least 40% of restructuring costs being covered from own contributions.

** Up to February 28, 2018.

*** For an additional amount of 6.6m EUR for employee provision, at most up to the amount of 6.6m EUR.

Source: Authors' calculation pursuant to privatisation contracts.

The restructuring plans also set forth a number of other measures that each entrepreneur had to implement to be able to ensure the long-term sustainability of its operations. The European Commission can still order the return to the state of all aids for rehabilitation and restructuring given to entrepreneurs from March 1, 2005, with compound interest, in the following cases:

- if either the privatisation agreement was not signed or the conditions laid down in the plan of restructuring – accepted for the Agency for the Protection of Market Competition and the Commission – were not entirely put into it;
- if an entrepreneur did not make a contribution of its own (exclusive of state aids) coming to at least 40% of the costs of restructuring;
- if no reduction of total production capacity in the period of twelve months from the signing of the privatisation contract was made. In this case the return of aids was required from only those entrepreneurs who did not achieve the individual capacity reductions given in the table;
- there was an overall overstepping of the production restrictions for the entrepreneurs (of the 323,600 CGT) in any individual calendar year between 2011 and 2020. In this case the return of the aid was sought from the entrepreneurs who had overstepped the individual production restrictions.

A ban was implemented on the reception of any new aids for rehabilitation and restructuring before the elapse of at least ten years from the day the privatisation agreement was signed. Otherwise, the European Commission would order the government to ensure the return of all aids for rehabilitation and restructuring awarded in despite of the ban. Table 4 shows the dynamics of state aids and own contributions of shipyards, in line with the restructuring process.

4. The impact of restructuring and privatisations on the operations of the shipyards

The labour force in the big shipyards was reduced from 2011 to 2015 by about 2,700 or 25.5%. Encouragement can be found in the fact that average monthly wages rose in 2014 from 2013 by 5.5%, with the reduction of average net wages being recorded only in 3. maj. The number of employees was enlarged by 1.8%, the first increase in the number of jobs after 2010. Although it is not mentioned in the reports, in the last two years wages in the shipyards were not paid regularly, and there were several strikes in Brodosplit and 3. maj because of delayed wages and the imposition of more stringent conditions of labour.

In 2014, the large Croatian shipyards employed a labour force of 7,793, which is 0.6% of all employed persons, or 0.71% of all those employed in legal persons. The share of those employed in shipbuilding is gradually falling as the consequence of restructuring and the endeavours that the shipyards should become financially sound and independent of state aids. If the labour force in all the shipyards were considered (small, medium-sized and large) then their share in overall employment would come to from 2 to 5%, and with subcontractors to 10% (according to the data of Croatian Shipbuilding – Jadranbrod).

For a complete comprehension of the financial position, one needs to look at the trends in shipyard liabilities during the restructuring and privatisation (table 5). There are two interesting trends until 2014 – a considerable reduction of long-term liabilities (because they were transformed into government debt) and the gradual rise in short-term liabilities. However, in 2015, due to new state financial guarantees, shipyards took new, long term loans and their long-term liabilities rose up to 171 million EUR (increase of 270%). Uljanik and Brodotrogir increased their long-term liabilities the most, while only Brodosplit decreased his long-term liabilities in 2015.

The total liabilities of the shipyards after privatisation were radically reduced. After writing off the shipyard's debts, the state ceased giving guarantees. For this reason, the shipyards were no longer able to obtain high long-term loans

as they had before, and accordingly their long-term liabilities were reduced. In 2014, most of the liabilities of the shipyards were short-term liabilities (88%). They were reduced after privatisation, and then they increased slightly, which can be justified by increased business activity. Most of the short-term liabilities are those owed to suppliers and those related to advance payments received, which have to be met after the delivery of ships or the completion of some other business contracted for. In 2015, long term liabilities have increased due to bigger state financial guarantees.

Table 5 - Liabilities of the shipyards from 2011 to 2015 (in million EUR)

	Liabilities	2011	2012	2013	2014	2015
Uljanik	Short-term	129	113	180	235	256
	Long-term	83	69	83	19	86
	Total	212	183	263	254	341
3. maj	Short-term	572	20	28	53	50
	Long-term	70	0	0	0	16
	Total	642	20	28	53	66
Brodosplit*	Short-term	583	45	43	29	40
	Long-term	214	8	13	12	9
	Total	797	53	55	40	49
Brodotrogir	Short-term	167	4	15	44	41
	Long-term	186	3	7	5	66
	Total	352	7	22	49	106
Viktor Lenac	Short-term	13	11	10	18	12
	Long-term	1	10	10	10	10
	Total	14	21	20	28	22
Total	Short-term	1,463	194	247	326	349
	Long-term	555	90	114	46	171
	Total	2,017	283	361	372	519

* unconsolidated financial reports.

Note: In 2013, 2014 and 2015, data for 3. maj are not aggregated, for they are already shown in the Uljanik financial reports.

Source: Consolidated audited annual reports of the shipyards from 2011 to 2015 (at group level).

The financial position of shipbuilding can be analysed in detail with the help of the relevant financial indicators – liquidity, assets and indebtedness, operating efficiency and financing as well as debt collection period and liability settlement period. The figures are tracked for four of the shipyards, which from 2011 to 2015 were in the process of restructuring and privatisation (Uljanik, 3. maj, Brodotrogir and Brodosplit).

In terms of liquidity, the position of Croatian shipyards is satisfactory (Appendix, T. A.5). All liquidity indicators increased in 2012 which was expected

as the state had taken over the liabilities of the companies. Thereafter there has been no clear pattern with the average falling in 2013 and rising again in 2014. As of 2015, the average liquidity of the shipyards is satisfactory, with quick and current liquidity, the values of 1.22 or 1.58 recorded in that year. The average is spoiled by Uljanik and Brodotrogir.²

Asset turnover ratios show that the shipyards are short on revenues (Appendix, T. A.5). In other words, they lack the market share. After 2012, all the shipyards recorded a rise in the value of their assets that was not accompanied by an increase in revenues, because of which asset turnover ratios declined. The relatively high ratios recorded in 2011 and 2012 were largely attributable to high levels of state aid. A positive impact of restructuring was that the coefficient of indebtedness is in a commonly acceptable range (up to 50%). Nevertheless, it should be noted that Uljanik and Brodotrogir recorded values that are above the benchmark.

Viktor Lenac has recorded a growth in its asset turnover ratio since 2012, while its debt level has been constantly on the increase since 2008. Thus in 2014 for the first time the coefficient of indebtedness was greater than 50%. If we take into consideration that the average coefficient of indebtedness in 2010 was 300% and in 2015 as low as 62%, and also that the value of state aids in 2013 and 2014 fell drastically after the write-off of liabilities in 2012, the question arises why so long was waited for privatisation. Had it been done much earlier, the compensation measures imposed by the EU (because of high state aids) to the shipbuilding sector would have been avoided, government would not spend so much money on covering debts, state guarantees would be much lower, and financial stance of shipyards would be much better. Unfortunately, in 2015, state aids have again been approved to shipyards, and they continued with their old financial management policies (Uljanik and Brodotrogir).

In the claim turnover ratio total short-term claims are reduced by short-term claims from the government for the shipyards have large claims against the state that could be brought down to faulty conclusions. Only revenues from sales are looked at (without revenues from the state). In the case of the liability turnover ratio all expenditures and short-term liabilities are included (Appendix, T. A.5). In 2015, Brodospolit and 3. maj had problems with collection. Interestingly, in 2014, shipyard 3. maj experienced a considerable increase in the collection period from associated firms, while Uljanik recorded a

² For Uljanik, the coefficients of quick and current liquidity are less than 1 and have been constantly on the decline since 2010, although a slight recovery was seen in 2014 and 2015. Brodotrogir has lowest liquidity ratio. Viktor Lenac too has shown increasingly low liquidity since 2011, but recovery is seen in 2015.

significant rise in the payment of liabilities. Since these firms are connected, we can conclude that Uljanik was late in paying its liabilities to 3. maj. On the whole, shipyards do not have problems collecting claims from customers, except from Brodosplit and 3. maj. In 2015, for example, it took Brodosplit an average of 454 days to collect from customers, and 3. maj 161 day. Also perceptible is an increase in the payment period for all shipyards after 2012. But it still took much less time for the shipyards to pay their obligations than in the days before privatisation.

The indicators of overall operations efficiency and operations and sales efficiency are almost the same after the considerable cuts in state aids and grants. The efficiency of overall operations and sales raised in 2015 – after worryingly 2014, when coefficient was lower than 1, which shows that expenditures exceed revenues. In 2013, all were bordering on 1 apart from Brodosplit that kept up the average. However, even this needs taking with caution, for in the revenues for 2013 Brodosplit showed all the future aids that it was supposed to receive from the state by 2017, thus speciously increasing its revenues. The gross profit margin up to 2013 is positive, while in 2014 because of the losses of all the yards (except for Brodotrogir) it is in negative area. Because loses of Uljanik and Brodosplit are bigger than profits from Brodotrogir, Viktor Lenac and 3. Maj, 2015 is also in negative area (Appendix T.A.6 and T.A.7).

5. Conclusion

Shipbuilding in Croatia has long been perceived as one of the main branches of industry because of the large number of employees, its export orientation and the large number of subcontractors involved indirectly or directly in the production of ships. The fact that it was a strategic branch of industry often justified considerable state aids directly by subsidies and grants, by assumption of the debts and also indirectly, by the issue of guarantees. With EU accession, the Government started insisting on restructuring and privatising the shipyards. In the period 1992 – 2017 over 4 bn EUR was invested in rehabilitating and restructuring the shipyards. Operations of the Croatian shipyards were evidently inefficient and placed a serious burden on public finances.

As a result of the restructuring process, the shipyards have reduced their labour force. The production too has fallen, not only because of restructuring but also because of the weak condition of the shipbuilding market, and also the requirement by the EU that Croatia reduce total production capacity. The revenues from sales and exports of the five biggest shipyards are falling and the

decision for the shipyards to gradually orient their efforts to non-shipbuilding product seems sound.

In the financial operations of the shipyards there were two interesting trends until 2014 – a considerable reduction of long-term liabilities (because they were turned into government debt) and a gradual rise in short-term liabilities. After it had written off the shipyards' debt, the state stopped issuing guarantees. For this reason, the shipyards did not manage to take out many long-term debts, as they had earlier. Most of the short-term liabilities refer to debts to suppliers and obligations for advance payments received that have to be met after the delivery of ships or after the completion of some other job agreed on. But, in 2015 the state again started with old policy of issuing guarantees to shipyards, and their long-term debts rise again. This proves that the privatisation has not been completely successful. In essence – the privatisation and restructuring processes were not well prepared and can – therefore – not be considered a final solution for Croatian shipyards.

The effects of the restructuration and privatisation of the shipyards are nevertheless positive, and it is a question why these processes were not initiated earlier. More timely reaction would have created savings in the budget and enabled the yards to avoid the EU compensation measures. The consequences of the restructuring and rehabilitation of shipbuilding will have long-term impacts on public finances. If one takes into consideration that the general government budget has been in deficit most of the time, it is obvious that grants to shipyards were largely debt-financed. In other words, about 4 bn EUR of public debt was created as a direct consequence of the restructuring and rehabilitation of shipbuilding. Taking into account the growing expenditures on interest that have to be paid on this debt, the full impact is much greater.

The quasi-fiscal activities (producing indirect fiscal effects) and fiscal risks (which turned into direct liabilities) should be a lesson to future governments in the formation of economic policies and the making of decisions about privatisation and giving concessions to properties. Using the example of shipbuilding, it has turned out to be illusory to expect a change of business orientation in firms in which the state is the owner and that are continually dependent on state aid. Unfortunately, the privatisation of Croatian shipyards was not well prepared and was done under the pressure of the EU. Although the privatisation of shipyards produced some positive effects, the return to the state aid in 2015 confirms the fact that privatisation itself cannot by itself solve all accumulated problems but needs to be backed up by a more comprehensive approach for making the operations of shipyards sustainable in the long run.

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Appendix

Table A.1 - Main economic indicators for five biggest shipyards from 2010 to 2015

	2010	2011	2012	2013	2014	2015
Number of persons employed	10,739	10,506	9,486	7,656	7,793	5,718
Sales (in million EUR)	753	520	369	205	268	324
Gross operating surplus/ deficit (in million EUR)	-95	582	726	82	-84	-22
Total procurements of goods and services (in million EUR)	828	553	389	280	253	316
Personnel costs (in million EUR)	152	151	136	106	118	91,3
Average net wages (in EUR)	705	716	706	709	743	681
Assets (in million EUR)	859	1,543	557	663	635	742
Liabilities (in million EUR)	1,931	2,017	283	361	372	519

Source: CBS.

Table A.2 - Number of persons employed in the five biggest Croatian shipyards from 2010 to 2015

	Brodosplit	Brodotrogir	Uljanik	Viktor Lenac	3. maj	Total
2010	3,553	1,208	2,760	590	2,628	10,739
2011	3,491	1,239	2,663	598	2,515	10,506
2012	3,255	1,203	2,631	573	1,824	9,486
2013	2,259	932	3,956	509	1,307	7,656
2014	2,447	983	3,826	537	1,242	7,793
2015	55*	1,143	4,011	509	1,286	5,718

* unconsolidated financial reports. Note: from 2013 to 2015 3. maj figures are shown in Uljanik reports, and are thus not aggregated.

Source: Financial reports of the shipyards (number of employees as of Dec. 31).

Table A.3 - Revenues from sales from 2011 to 2015 (in million EUR)

	2011	2012	2013	2014	2015
Uljanik	209	185	139	144	175
3. maj	102	69	57	57	71
Brodosplit	110	50*	24	56	43**
Brodotrogir	53	34	8	22	38
Viktor Lenac	45	31	35	46	68
Total	519	369	205	268	324

* From the 2012/2013 reports, for in the 2011/2012 reports there is no information concerning revenues from sales. ** unconsolidated financial reports. Note: In 2013 and 2014 data for 3. maj are not aggregated for they are already shown in the Uljanik's financial reports.

Source: Consolidated audited annual reports of the shipyards from 2011 to 2014 (at group level).

Table A.4 - State financial guarantees from 2007 to June 20, 2015 (in bn EUR)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Guarantees to shipbuilding	0.61	0.35	0.28	0.63	0.08	0.09	0.00	0.00	0.60
Total guarantees issued	0.69	1.74	0.82	0.77	1.39	1.28	1.24	1.04	1.43
Guarantees to shipbuilding as % of GDP	1.4	0.7	0.6	1.4	0.2	0.2	0.0	0.0	1.4

Source: Authors on the basis of MF data concerning issued financial guarantees from 2007 to 2015.

Table A.5 - Liquidity and asset turnover ratios of four big shipyards from 2011 to 2015

	2011	2012	2013	2014	2015
Liquidity ratios					
Cash	0.07	1.02	0.43	0.11	0.20
Quick	0.72	2.29	1.33	1.47	1.22
Current	0.82	2.65	1.74	1.82	1.58
Asset turnover ratios					
Total	1.08	4.93	0.82	0.65	0.54
Long-term	11.25	15.24	1.81	1.82	1.64
Short-term	1.36	7.43	1.61	0.97	1.28
Coefficient of indebtedness	1.71	0.50	0.51	0.62	0.62

Note: The analysis does not cover Viktor Lenac, which finished the restructuring process earlier.

Source: Financial Agency, www.fina.hr, authors' calculations on the basis of the consolidated financial reports.

Table A.6 - The debt collection period and liability settlement period (in days) of four large shipyards from 2011 to 2015

	2011	2012	2013	2014	2015
Claim turnover ratio (not. inc. state)	18.61	14.61	14.44	4.34	3.95
Debt collection period (days)	32	51	89	177	186
Liability turnover ratio	0.85	5.39	2.25	1.91	1.56
Liability settlement period (days)	644	108	181	240	257

Note: Analysis does not include Viktor Lenac, which finished the restructuring process earlier.

Source: Financial Agency, www.fina.hr, authors' calculations on the basis of consolidated financial reports.

**Table A.7 - Indicators of operating efficiency and financing
of the four biggest shipyards from 2011 to 2015**

Operating efficiency indicators	2011	2012	2013	2014	2015
Total operations efficiency	1.68	3.32	1.17	0.84	1.00
Operations and sales efficiency	1.73	3.43	1.11	0.84	0.91
Financing efficiency	0.39	1.28	2.04	0.91	0.78
Gross profit margin	0.31	0.52	0.11	-0.22	-0.04

Note: Analysis does not include Viktor Lenac, which finished the restructuring process earlier.

Source: Financial Agency, www.fina.hr, authors' calculations on the basis of consolidated financial reports.

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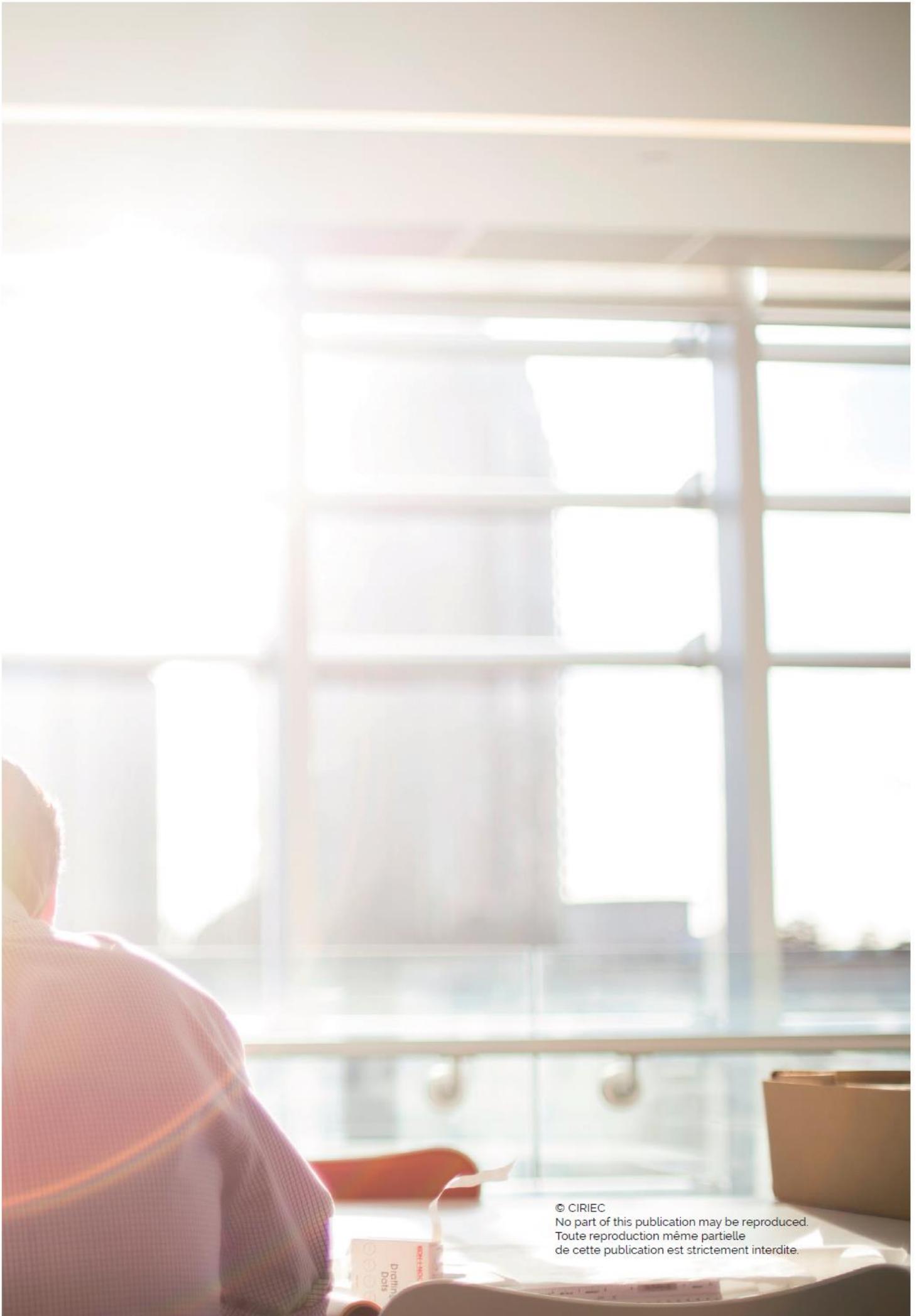
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