

Data Appendix

The quality of data in any economic history analysis is always uncertain, the more so the farther back in time one goes. Indeed in the literature, quantitative analysis of economic history before the 17th century is very sparse, hence this work falls very much into the uncertain quality category. Some of the numbers we compiled are very soft in quality, and in such cases we draw any time-series charts with a dotted line. While our data compilation method consists of relying on secondary sources in the large historical literature on Ragusa in several languages – Croatian, Slovenian, Serbian, Italian, English, German – the sources we used themselves undertook considerable primary research in the Dubrovnik Archives. This in our view raises somewhat the quality of the data, but does eliminate questions that can be put about their accuracy. For readers who are interested in a deeper reading of our work and perhaps continuation of the analysis, this data appendix provides details for those measures we compiled not from one source alone, but strung together from various sources. The Tables here provide very detailed footnote references and comments, including explanations of assumptions we or the sources themselves made.

Table 1 Ragusa population and size estimates

Reference Year	Population (000) (Vekarić 2008, 2011) (city)/[[republic]]	Population (000) (other sources)	Area expansion ^a	Grain cons. ^b	Population ^c Croatia	Number of sailors
1000	(2,25) ^d /[[same?]]					
1300	(3,5)/[[17,5]]		Astarea +Elaphites +Lastovo [25]			
1325	(4,0)/[[20,0]]	[15] ^e				
1345		14 ^f				
1350	(2,5)/[[12,5]]	[7.5]	+Peljesac +Cavtat +375sk+200 =[600]	10		
1358		35 ^g				
1375		[10]				
1400	(2,5)/[[25,0]]	[15]	+Slano (300) [900]	20	1,200	
1416	(4,0)/[[40,0]]		+Konavle (200) =[1,100]			
1425						
1450	(6,0)/[[60,0]]	[40] ^h				
1475						
1500	(7,0)/[[89]]					
1525	[[65]]					
1550	[[52]]					
1575	[[55]]					
	[[53]] 88					
1600	[[49]]					
						928

1625	[[43]]	[1,100]	
1650	[[39]]	[1,100]	
1675	[[26]]	[1,100]	
1700		[1,100]	
1725		[1,100]	
1750		[1,100]	
1775	[25]	[1,100]	2,400 (Carter, 1972, p. 433) 3,000
1800	[8]	[1,100]	
1825		[1,100]	1782

^a Carter Fig. 18; the **[bold]** values are very approximate estimates of land area – sq. km – except for the last one from 1500 onwards, which is a more accurate value (1,092) given by sources for present day area.

^b Krekić (1980, p. 38): '000 Staria; Stipetic notes authorities planned for 216k/person/year.

^c Stipetic (2004) pp. 138, 155, 156.

^d Vekarić (2011, pp. 205–250) sequentially provides rough estimates of city population starting in the 7th century: "from 7th to 10th century Dubrovnik did not have less than 400 and not more than 2,700 population" (p. 208). For the years 1000–1300 he estimates population varied between 1,500–3,000 (p. 211). We show for year 1000 as the mid-point of these (2,250). These are the city values shown within (.). For years before 1400 we estimate the republic as five times the city. For years 1400 onward, when territory reached maximum, we estimate republic as ten times the city, approximate ratio known in 1500 is 89/7=12.

^e Very approximate estimates by authors for 1325–1400 based on Carter (1972, pp. 16–17). It is variously stated by historians that in the early 14th century the city had 5,000–10,000, and the outside territory of Astartea (see col. 3) perhaps another 3–5 thousand, hence our estimate of 15,000 in 1325. The first bubonic plague episode of 1348 is estimated to have taken at least one third of the population, some say over 50 per cent; we assume 50 per cent to avoid overestimates of population, hence 7,500 in 1350. Carter (p. 16) refers to "one estimate" of about 6,500. As population recovered and large new territories of Cavtat and Pelješac, then Slano were added, we give notional estimates of 10,000 for 1375 and 15,000 in 1400. Carter gives values shown for 1775 (p. 433) and 1800 (p. 15, 1807 census). We use the former for tentative trend charting but note that for 1800, since the sharp decline is not explained, is inconsistent with Carter's and others' estimates for shipping revival in this period, hence we consider it very uncertain.

^f Inference from: Carter (1972) estimate of number of deaths caused by plague after 1325.

^g Skenderovic (2000, p. 70). This may be too high an estimate compared to values just a couple of years earlier but perhaps not that far off. This was a period of great volatility of population as the cycles of decline due to plague, and rebound through large immigration from the Balkan hinterland as economic boomlet of silver period well underway. The values might not be precise but the ups and downs from 1300–1400 probably give a roughly correct picture of these two opposing demographic trends.

^h Vekarić shows this figure as estimated by others (p. 22), but does not consider it reliable, and therefore does not include it in his summary (Table 14, p. 26). We use it in our charts to indicate tentatively a possible trend prior to 1500. The implied large growth from 1450 is not implausible, as the very fertile territory of Konavle with large carrying capacity was added, the economic boom reflected in shipping growth, and as Vekarić notes, a large inflow of Slavic refugees fleeing from the expanding Ottoman occupation of the Balkans throughout the 15th century. It may also be we were too conservative in our 1400 estimate.

Table 2 Venice population estimatesⁱ

Reference Year	Population City (000)	Population Lagoon (000)	Population Domain (000)ⁱ
1200		80	
1300	120	160	
1350		60	
1423		150	
1500>		190	
1575		190	1,500
1631		100	
1640		120	
17th–18th c.		120–150	
1770			2,000

ⁱ Lane (1973).

^j Carter (1972, Fig. 18); the [**bold**] values are very approximate estimates of land area – sq. km – except for the last one from 1500 onwards, which is a more accurate value (1,092) given by sources for present day area.

Table 3 Direct output estimates GDP, GDPpc: Ragusa and comparators^k

Reference Year	GDP Mil.1990\$	GDPpc 1990\$	GDPpc Croatia	GDPpc West. Europe	Venice estimate ^l
1300				590	
1325					
1350					
1375					
1400					
1425					
1450					
1475					
1500	74	930	577	774	[1,320]
1525					
1550					
1575					
1600		[1,000+?] ^m		805	[1,210]
1625					
1650					
1675					
1700	24	900	545	1,024	[1,280]
1725					
1750					
1775					
1800					
1825	49 ⁿ	735	513	1,232	
1850	63	750	529		
1875	96	934	709		

^k Sources: For Ragusa and Croatia, Stipetic (2004) using the same methodology and benchmark year of 1990 dollars as Maddison (2001), which is the source for other regions. 1300 values are interpolated between those of 1000 and 1500.

^l Economic history literature widely recognizes Venice was among the richest republics in late-mediaeval era. Stipetic assumes GDPpc = 120 per cent of Italy (from Maddison), hence 1,320 for both 1500 and 1700. For 1500 this is 1.75 xWE. We start with this, but given consensus on gradual loss of Venetian superiority by 1500, we assume a ratio of 1.5 in 1600, and 1.25 in 1700.

^m Stipetic does not show a value but in conformance with literature consensus states that "1500 does not represent [apogee] of power...which would be realized only [after 1550]" (p. 166). We assume a value of 1000+.

ⁿ After 1700, Stipetic shows values for Dubrovnik and Dalmatia together. Table 1 uses ratio of Dubrovnik to the sum in 1700 to estimate numbers in Col. 1 & 2. There is no clear basis for this assumption, indeed qualitative historical accounts may suggest Dubrovnik lagged the Croatian hinterlands after 1700; hence these estimates may be upward biased.

Table 4 Ragusa output proxy: shipping data

Reference year	Number of ships Luetic (other)	Tonnage Luetic (other) 'th. (kara/[Tons]) ^p	Venice #ships/tons ^d	Netherlands tons ^r	England #ships/tons	Number of workers ^s
1300	(22) St.	-/[12]auth. est.				
1325	(40) St.	-/[13]auth. est.	(26)/[4] ^r			
1335						
1350						
1375	75	-/[16]auth. est.	{300}/[23] {100}/[8] 345/[26] {300}/[35]			
1425						
1450	(100) Bojovic	-/[110] -- / [29]stj	(107)/[26]	60		(3,000)
1475						
1525		{.5Neth=60T??}		[120] [190]		(7,000)
1550	132 (132K/180.V) +50	15.5/[24]				
1575	200(180.K/180V) +??	33/[53] (35k.SV/sti(63)	{200}/53	232	-/51(76.C)	(7,000)
1583					(173+) /[67] ^u	
1600	125(112.K/112.V)	25 / [38]		[300]	(280+)/[172]	(5,000)
1605	100 (68K/68V)	(23.7.K/23.7V) [1/6Neth=50T??] 17.3/[26] (17.3K)				
1625	75-100	-				
1650	70+(74.K/)	-				
1675	74 (78V)	6.7/[10] (6.7V/[10t.k])	112/[14]	568	-/260	
1700	75 75.k/75.v)	6.1/[9] (6.1.V)	125/[16]			(2,000)
1725	50(auth. est.)	-				(4,000)
1750	149	-	60('57)/- 32('60)/- 155('66)/[20]			

1775	240	17[26]	392/[49]]	450	-/1000
1800	277	26/[39]	300/[38]]		(5,000)

Further explanation for 1725–1800: Luetic gives clear numbers with precise dates only for 1750 (p. 94) and 1805 (p. 106), as shown in the table. For 1725 we estimate a value of 50 from his description, p. 91, that from 1700–1734 there was a sharp decline in fleet, and then 1734–1744 a strong revival. For 1775 we estimate based in his numbers of 190 ships of beyond Adriatic type with 15,000 kara capacity, to which we add conservatively 50 ships, probably unregistered medium and small ones, and an additional 2,000 kara. (for other years he suggests small-medium unregistered ships at least one third more). The 1805 values are more definite and are assigned to the 1800 period, as usual. ° Luetic (1661) provides large amounts of information based on primary sources in the Dubrovnik Archives, though precise archival references are not given. Also, the numbers are NOT provided systematically, with tables or charts for a specific year. Sometimes he gives range of time, total numbers, and tonnage, sometimes lists numbers by type of ship; hence we add these up, and define “nekoliko” = a few, as 5. Some data is for officially registered and/or taxed ships, and Luetic may then estimate total including unregistered; he is clear that tax avoidance was common, but unfortunately does not give explanation for his upping of estimates. We show this as +X. We exclude small fishing vessels, which he often mentions but does not enumerate. There are some internal inconsistencies within Luetic, so lower estimate will be used in analysis. He also gives fragmentary data on numbers engaged in navigation-related activities, in last col. (Other) sources data: B = Batic; Boj = Bojovic; C = Carter K = Krekić; M = Maddison; S = Stuard; V = Sjepean Vekarić. These are referenced in the data Appendix. N.B. many of them appear to rely on Luetic as one source, but also two other important writers S. Vekarić and J. Tadić.

^p In [], values in metric tons, in some cases converted from kara = 1.5 tons. Luetic has the longest series of information, in 1,000-kara capacity, but starting only in 1550 and no capacity estimate given to correspond with number of ships he shows in 1375. For earlier years other sources are used, shown in light font – in later years these same sources are generally broadly consistent with Luetic, with one large deviation: for 1575 Stipetic gives 63 tons, while Luetic, S. Vekari give values about 33–35 kara, or ton equivalent of 50–53. We use 53. For 1300–1375, very rough approximations are made by authors as follows: average tonnage per ship is calculated for 1550–1600, with values of 180, 250, 305 – consistent with the qualitative consensus that the size of ships increased considerably over the centuries reaching a maximum in the late 16th century. Luetic, incidentally, refers to the largest ship at this time of close to 1,000 kara = 1,500 tons. Taking the 1550 value of 180t, we assume average capacity in 14th century of 75t, by 1450 of 100t, and estimate tonnages as shown ([]).

^q Lane (p. 337) makes clear that the Chioggia wars with Genoa in 1377 devastated the Venetian fleet, by 1423 rebuilt to 345 ships. We assume 300 ships before the war, 100 after, and for tonnage we take the same average value as for Ragusa, 75/ship. Virtually all historians agree that at Ragusa’s peak, 1575, its merchant fleet equalled that of Venice – we use the same values for that year. Later years: Luetic gives number of ships, we estimate tonnage again assuming average same as Ragusa in that period, about 125t/ship.

^r Maddison (2001, p. 77). Values in [brackets] are straight-line interpolations. For England, Stipetic, p. 164.

^s Luetic give several estimates of workers engaged in shipping, but very unsystematically, without precise years or periods. Here we show this only in (light font) to symbolize its low reliability for statistical analysis. Usually it is only number of sailors, but in places indicative values for others like shipbuilders, chandlers, rope makers, dock loaders, etc. are also noted. His qualitative evidence suggests number on shore about half that on ships. Totals estimated are shown. N.B.: our “guess” for 1500 based on 100 master shipbuilders, assumed total shipbuilders are 10x masters = 1,000; these comprise half of land-workers in shipping (2,000) and with sailors a total of 3,000.

^t Values for Venice 1335 and 1450 are from Lane (1966), and 1500 from Lane (1933). While these numbers clearly show that in the 14th century Venetian fleet was greater than that of Ragusa, it is nevertheless notable that Ragusa was not that far behind even then. Indeed, di Vittorio (1994, p. 185) – unfortunately without citing numbers – asserts that in the period 1377–1396 it had the third largest fleet in the Mediterranean, after Venice and Genoa.

^u Ozveren (2000, p. 25) – note Carter gives slightly more, 76t, already in 1575. Ozveren then notes how many ships of 100+ tons were built in years 1592–1595 and 1597. We multiply this by 100t and add to tonnage of 1583 to show a 1600 value of about 280 ships and about 172-k tons. As not all year’s new ships are given by Ozveren, and the estimates exclude ships under 100t, the total is probably even larger. The main point shows however how England’s position before 1575, even behind Ragusa, jumped dramatically to become probably second only after the Netherlands.

Table 5 Ragusa output proxies

Reference year	Value of the fleet ('000ducat) ^v	Wage index ^w	Investment value ^x	Deposits abroad ^y
1300				
1325			116	
1350			116	
1375			116	
1400		100	116	
1425		100	527	
1450		100	527	
1475		100		
1500	200	100		
1525		125		
1550		150		--/[400]
1575	700	175		262/ -
1600		200		
1625		250		
1650		325		--/[675]
1675		425		
1700		500		600/[700]
1725		650		
1750		800		
1775		800		
1800		800		--/[700]

^v Boj. 1500, 1575.

^w Our approximation using text references of % increases in different parts of these centuries, in Carter (1972, p. 577). [un-deflated for now: discuss deflator]

^x Krekić (1961, p. 75), ducats average for periods 1321–1430 and 1431–1460.

^y First number: Carter (1972, p. 578): deposits held in Italian Banks by Ragusa entities, '000 ducats. It is not stated if these were Venetian or Ragusan Ducats. Second number: Di Vittorio (2001, pp. 37–78), in Ragusan ducats. It is not clear the two sources are consistent. If Carter uses Ragusan ducats, the 1575 value is far lower. If Carter uses Venetian, then exchange values on p. 576 with Dinars and ducat/dinar rates on p.??? earlier imply values of deposits similar in value to 327 in 1575, but a very different value of about 1,500 in 1700. We will use for now Di Vittorio's values.

Notes

1 Introduction: Why Ragusa?

1. Webster's Dictionary (2003) defines Argosy: "a large merchant ship especially one with a rich cargo [1570–1580], earlier Ragusy, Italian = Ragusea, a ship of Ragusa." Encyclopedia Britannica (1963) gives more detail: "Argosy, is the term originally used for a carrack or merchant ship from Ragusa or other Adriatic port, later used poetically of any vessel carrying rich merchandise. In English writings of the sixteenth century, the seaport is variously spelled (Ragusa, Aragouse, or Aragosa). The incorrect derivation from Jason's ship, the 'Argo', is of modern origin."
2. It was not until about 1600 that England's fleet clearly exceeded Ragusa's – see Chapter 5.
3. As cited in Basic (2006).
4. As cited by Carter (1972), p. 21.
5. Cliometrics; from Clio, muse of history, and econometrics, use of statistical data to test hypothesis. This is sometimes referred to as the new economic history, as exemplified by Temin and Nobelists North and Fogel. Both Stipetić (2004) and Ravancic (2010a) give in Croatian excellent summaries of cliometrics. The essential distinction with earlier economic history is twofold: use of as much quantitative data as is available and statistical correlation/interpretation analysis of such data to test interpretations and hypotheses in economic history. The uses and limitations of quantitative data in history are noted in Fogel (1975).
6. Most historians consider the boom or golden years of Ragusa as coming with long-distance eastern Mediterranean shipping in 15th and 16th centuries. Stuard (1976/1977) is somewhat of an exception – we test this "silver" hypothesis in Chapter 4.
7. Chapter 3 and others will address what is known about reality vs. myth, including new hard archaeological evidence that there was an earlier settlement there.
8. Putanec (1993) gives a detailed and balanced analysis of the possible origins of the two names.
9. For film buffs who will know "The Third Man," Ragusa can be considered a precursor of early Cold-War Vienna: at the edge of both camps, urbane, cultured, open, prosperous – a most convenient place for spies or envoys to interact safely and discreetly.
10. A quantitative social analysis is the novel and interesting exercise by Ravancic (2010a), who uses archival statistics on court cases related to tavern disputes to show they were highest on weekends and in low-work seasons!
11. Machiavelli (1531); p. 8 of the 1966 English translation
12. We put "noble" in quotations since the self-anointed elite of noble status was not in fact truly blood-based as the mythology of Ragusa (and Venice and others) claimed; this is elaborated in Part IV of the book.

13. A succinct account is given in *The Economist*, "The Narrative of an Empty Space" Dec. 22, 2012, pp. 53–55.
14. We offer our apologies to historians for having too few footnotes and to economists for having too many.

2 Key Aspects of the New Institutional Economics (NIE)

1. The interested reader can find extensive discussion in the book of Menard and Shirley (2005) or a more succinct literature review in Williamson (2000).
2. Williamson (2000), p. 595
3. Probably coined by Williamson (1985)
4. A few words on the difference between the "Old" Institutional economics and the new one may be useful. The first is attributed to a line of American economists from late 18th to mid-20th century such as Veblen, Commons, Mitchell, and Berle. Its central purpose was to question the utilitarian maximization of neo-classical theory and argue that on the one hand existing institutions (= organizations in the NIE) like governments, firms, monopolies influence and manipulate markets, and on the other individuals are not rational optimizers, thus their behaviour depends on the context and can be manipulated by the institutions. One can see here a line to today's behavioural economics, but also to the NIE. For the NIE institutions also matter, though from North on these are not the government or private organizations of Veblen, but the rules-of-market-game which may be established and enforced by such organizations.
5. Just how difficult this is in practice is paradoxically well illustrated by the work of Rodrik himself, who often trips up as will be noted in this text.
6. Dani Rodrik of Harvard is quoted in the *Economist* as being if not the only economist to recognize this imprecision of definition, "maybe the first one to confess to it." I do not know who keeps such a confessional list, so I take with a grain of salt this "pioneering" attribution – but the point is well taken: any analysis of institutions should retain a large degree of humility given the imprecision of the concept.
7. One of the most powerful critiques of the empirical consensus that institutions are significant in econometrics test is by Glaeser, La Porta, Lopes-de-Silanes, and Shleifer (2004). Yet after a comprehensive econometric exercise showing why all earlier tests got it wrong, they end with a silk-glove conclusion (p. 298): "The results of this paper do not show that 'institutions do not matter'. That proposition is flatly contradicted by a great deal of available empirical evidence, including our own. Rather, our results suggest that current measurement strategies have conceptual flaws."
8. This may be reminiscent of the famous statement by US Supreme court Justice Potter in the 1964 *Janellis vs. Ohio* obscenity case about a French film: "(I cannot define it but) I know it when I see it".
9. What follows owes a lot to Hartwell's (2013) thorough review of the literature in his Chapter 2.
10. Whether Coasians or non-Coasians are right on this may not matter, as in reality state involvement has deep historical roots that cannot be ignored – *vide* the arguments of the historian Ogilvie (2011).

11. Defining this as an institution is of great importance for our analysis of medieval Ragusa; its fiscal prudence is described in Chapter 8.
12. An extremely useful compilation and analytical undertaking is that of Kuncic (2013), which provides full digital access to a single website with a large number of the data-banks, and also proposes a single average of all their values, something not ever done before and justified by the argument that if we cannot agree on the proper weighting then the “most” objective aggregation is a simple average of as many indicators as possible.
13. The underlying rationale for the pragmatic approaches of both of the World Bank reports is extensive; see Kaufmann and Kraay.
14. Kaufmann, Kaufmann, *op. cit.* and others have attempted for transition economies to use surveys to estimate the size of bribery payments – a sort of hybrid of measures 2 and 3. Some limited information of this sort is sometimes available in the Annual reports of Transparency International, which compiles an overall ordinal index of corruption.
15. Perhaps not surprisingly as one of the authors, Djankov, led the World Bank team developing the Ease of Doing Business Indicators, in which the number of days to achieve an action is often used as a measure of institutional quality.
16. AJR05 use the term “endogenous” in a much broader way: all institutional change is internal to a society, its monarchs and the people who may revolt against them, parliaments and the people who elect them, and merchant classes. In that sense they say institutions are endogenous to the society. The term Coasian endogeneity is within the much narrower group of producing and selling agents in a market.
17. We have already noted the work of Kuran, Puga and Trefler, and Stasavage, which gives evidence of how rent-seeking tendencies can undermine the effectiveness of Coase-based institutional development. Indeed we will show that this problem gets a lot of attention in more recent NIE literature for developing countries, transition countries, and even the advanced economies.
18. That factor accumulation was a proximate cause was long ago recognized by growth economists like Solow and others; an early growth regression analysis in fact was subtitled “The Proximate Causes of Growth” Hagen and Havrylyshyn (1969).
19. The reference is to his most recent hence retrospective assessment; but the concept of special political moments, windows of opportunity was already noted by Balcerowicz in earlier works such as Balcerowicz (1993).
20. Beyond the WGI, one had by then similar compilations from EBRD, Heritage Foundation, Freedom House, and Euromoney.
21. Early forms of quiet privatizations by members of the previous elite have been given many names by observers: one of the less well-known may be among the most succinct: in Ukrainian the word “hvatat” means to grab – hence the term there “PRIHVATIZATSIYA.”
22. Havrylyshyn (1994).
23. It is strikingly unfortunate that in this popular literature – indeed in the academic literature as well – debates about the generous bonuses of CEOs pay little attention to one of the main scholars of the old institutionalism, Adolff Berle who with Means (1932) wrote perhaps the earliest work on how

- mangers take over control of enterprises owned by shareholders. This was probably the first early warning about the agency problem and creation of an independent non-owner managerial class.
24. Ogilvie's argument that far back in history state authorities became involved in arbitrating market disputes as well as providing some basic infrastructure of transport, may be unwittingly reflected in President Obama's clarion-call "you didn't build that". Ferguson (2012) does not disagree with the historical facts as such, but from the right he sees this as an unfortunate comment. It would be better, he contends, to give an optimistic pep-talk to the small entrepreneurs of America.
 25. A good example is Ferguson's (2012) pamphlet-like tract on deterioration of institutions in the 'west.' He is clear about his right-leaning preferences, but does not preclude recommendations of what governments too should do.

3 The History of Ragusa in an Eastern Mediterranean Context

1. Nicetic (2002, p. 11).
2. The Slavic name Dubrovnik has a clear explanation reflecting the oak (dub) forests in the area; as the successive waves of Slavic settlers came to dominate the Balkan, they began to use the name Dubrovnik. Ragusa is often said to be a distortion of Lausa (cliff, rocky promontory). But other interpretations exist and are thoroughly analysed in Putanec (1993).
3. Wikipedia.org/Maritime_Republics, accessed 8 January 2011.
4. As cited in Krekić (1997), II, p. 193.
5. Reference given by Basic (2006, p. 152) – he also cites Pepys at length on frequent changes of officials, guards, registrars, reviewers – an early hint of the financial prudence we discuss later. Pepys may have been right about Ragusa being older as our discussion of recent archaeological evidence suggests, but surely mistaken on "motherhood."
6. Since Ragusa was almost always in a *de jure* state of fealty to a large power, LIBERTAS had a very special meaning. Kuncevic (2010) makes a compelling case that "this great Ragusean myth" had many meanings and uses dependent on the context.
7. It was called the "Trentino" as the time required was at first only 30 days; by the 15th century the standard period became everywhere 40 days, hence the modern word "quarantine."
8. What follows here and in later chapters owes a great deal to the thorough analysis of Adriatic trade networks in the 12th and 13th centuries by Dorin (2012).
9. Bojović (2005) documents the first mention of Saxon miners in 1254, which probably means the actual start was earlier. He details the clear record of successive re-opening of the old mines through the rest of the 13th century, with the big boom period coming only after mid-14th century.
10. "Relative" is the operative word here: In Chapter 6 we show data suggesting its absolute level of economic activity might have been still very large, reviving after the loss of Eastern trade to Cape of Good Hope circumnavigation

11. Stipetić (2004) suggests a still-high GDP per capita. Related to this, Vekarić (1998) proposes a hypothesis worthy of further cliometric work: that the decline in population from the peak of early 16th century reflected an underlying carrying capacity of this small and highly infertile territory; in effect the earlier large populations were unsustainable. Unfortunately, the estimates of per capita GDP by Stipetić are too broad and intermittent to provide a clear picture of this period, as Appendix 2 explains.
12. Carter (1972, pp. 352–353) cites several references on this as well as the Church of St. Blaise in Goa.
13. The authors will not be surprised if these T-shirts do more to bring back knowledge of Ragusa to popular memory than will this book, nor will they be disappointed.
14. Transparency requires clarifying that the first author is Ukrainian, the second Croatian, and it so happens that two of the more vivid debates in Slavdom involving all the noted dimensions, concerns Ukrainian differentiation from Russians, and Croatian differentiation from Serbians. [Both of us are pleased to live in a period when increased application of Wilsonian self-determination is helping to mollify the intensity and reduce the relevance of these debates.]
15. Barford (2001) concurs with many other writers on the origin of the slavs that this question has not found an easy answer.
16. This discussion relies substantially on Barford (2001), Stavrianos (1966) and Vekarić (2011, Vol. 1).
17. Vekarić (2011), Vol. 1, p. 82.
18. Bettarini (2007, 2012).
19. At that time it is agreed there was a separate with the high cliff, separated from the mainland by a narrow channel, eventually filled in to form the Stardun, today's main street of Dubrovnik.

4 Economic Evolution and Rise to Prosperity

1. This probably underestimates the number in later periods since it shows only buildings within the city walls, and territorial expansion over time undoubtedly meant more major building projects outside as well. Note also in this table the overlapping uncertainty of years seen in Table 4.1 is not applied in order to have precise numbers for the last column.
2. Carter (1972, p. 53), based on writing of the Byzantine Porphyrogenitos – though Carter warns in many places such early writings probably had many confusions.
3. Indicative of the boom is the tenfold increase in Ragusan income from the Srebrenica mine; as given in Carter (1972, p. 226): 1389 = 3,400 ducats; 1417 = 24,800 ducats; 1458 = 30,000 ducats.
4. Often the location names define the mineral: for example, Srebrenica for silver, Olovo for lead, but Rudnik simply for mine.
5. We are grateful to Dorin and Stuard for their personal email communications which pointed out that our first paper on this (Havrylyshyn and Srzentić, 2012) dating the start at 1100 was much too early.
6. Carter (1972), p. 148 and p. 111.

7. The precision of dates merely reflects dates of certain documents of Ragusan emissaries which provide the estimated shares. In fact, even our more recent collection of data does not provide any total output estimates or such share values.
8. Harris (2003) Chapter 12 reviews in detail the extensive building activity of public infrastructure and personal villas both in the city and outside.
9. See Carter (1972) pp. 124–127 and Koščak (1993) on territorial expansion.
10. A. Philippson, *Das Mittelmeergebiet*, Leipzig, 1904; authors were unable to locate the work.
11. Interaction policies included religious acculturation of the population in the new territories, such as building of churches and monasteries, and naming them after the established Ragusan list of honoured saints, like St. Blaise (Sv. Vlaho). This hagiographic instrument of defining territorial control is described in Matinkovic (2007).
12. See Carter (1972), Chapters 9 and 10.
13. Two such studies are: Kuran (2011) for the Ottoman Empire, and Acemoglu, Johnson, and Robinson (2010) for Venice.
14. The GDP estimates of Stipetić (2004) make this clear.
15. The stories of selected individuals in this section are based largely on the following: Benyovski-Latin and Ledic (2012) on the Volcassio family, and for the others Carter (1972); Harris (2003); and Vekarić (2011) Vol. 1. Further specific page references are given only for citations and critical points. The reader will forgive that some apocryphal license is used here. But the unverifiable events described were almost certain to have occurred at some time, for one or another individual of the given class.
16. It is of course not literally the same view, as the city walls and church spires reached their present extent about 200 years after Pasko's trading voyages.
17. There is no better source to verify Ragusa dates than the thorough and careful work of Vekarić (2011); other sources are sometimes vague and inconsistent – for example, one gives the first arrival as 1205 – probably not enough of time to reach the high noble and merchant status they did by the mid-13th century.
18. Tadic (1948), p. 10.
19. Tadic (1948), p. 143. Though we have no way of knowing if he was THE or ONE of the richest, on pp. 152–155 some substantiation is provided with hard data. His wealth at the end was estimated at 100,000 gold (Venetian?) ducats; 1,000 shares in Genoa's "banco San Georgio," probably valued at 100.00 scudos, slightly less than 100,000 Ragusan silver ducats,[[40–50 K GOLD DUCATS ???]]; numerous houses and holdings in Lopud, other islands, and in the city; and ownership in many ships, shipyards, manufacturing plants, etc.
20. Tadic (1948), p. 332. Stuard (1998 and 2010) discusses at length the very active but generally background role of Ragusan women in commerce – but they were definitely excluded from official positions like the Senate.
21. Skocibuha means "jumping flea" and was for an unclear reason changed from the original Bosnian family name of the 9th century Sagrojevic, which itself was changed from the older one of Krivonosevic (Crooked Nose) – all these naturalistic names are doubtless an interesting story too, reflecting a very old Slavic habits, which also saw a revival in the 15th–17th centuries among

- Ukrainian Cossacks with literally descriptive names like OStroushenko (sharp ears) Tovstohubenko (fat lips) Horbachenko (hunchback), Kryvosheya (crooked neck) and yes, even Kryvonis!
22. Compare this amount to the Pracetovic holdings in just one bank of 100,000 scudos. But 30 scudos was certainly a large enough sum to support a year studying in Italy.
 23. Most historians do not give special importance to this period, with possible exception of Stuard (1975, 1992); we take the liberty to make it a more explicit hypothesis than she does in her many works on this period.

5 Quantifying Ragusan Prosperity and Disproportionate East Mediterranean Role

1. Fabijanec, (2012), p. 41.
2. This maximum should be taken with a grain of salt, as there are discussions on whether the possible refugees could be counted in the population back then.
3. Luetić (1969), Vekarić (1954), and Nicetic (2002) all emphasize the constant expansion of capacity over this period.
4. Havrylyshyn and Srzentić (2012) cite numerous such references.
5. This is also reflected in the work of Fernand Braudel, who writes of Ragusa's ability to "snatch away goods from under the eyes of Venetian merchants" as cited in Stuard (1992).
6. Arguably, the lack of a large and fertile hinterland should not matter, as resources can be imported. But in the mediaeval period with many famine episodes, states often forbade food exports; with long travel times, size mattered. Larger size also provided a labour force: sailors, soldiers, chandlers, etc. Venice was in this sense far better endowed than Dubrovnik.
7. Voje (2003 and 1976).
8. Voje (2003), p. 83.
9. Sunjic, M. (1967) p. 237 claims that Venice introduced measures to improve their own textile industry and ordered Dalmatian cities to tax Ragusan textile by 10 per cent even if it is only a transit good in their ports.
10. Voje (2003), p. 111.

6 The Relative Decline after Vasco da Gama Circumnavigation

1. Di Vittorio et al. (1994) p. 108.
2. Carter (1972) p. 353.
3. Lane (1933) p. 33.
4. Stipetić (2000a) p. 351.
5. Stipetić (ibid.) mentions there were only eight consulates in the Mediterranean in 1660, as compared to in 1600 when Ragusa had thirty consulates.
6. "In 1560 England ranked low among the maritime states; her merchant fleet was by European standards an insignificant one. It stood far behind that of the Dutch...behind Venice or even Ragusa and Genoa" (Carter, 1972, p. 312).

7. Several articles in Filipović and Partridge (1977) discuss this, including: Lucić, Luetić, Partridge, and Živojinović.
8. Lane (1933).
9. Lane (1933) p. 42.

7 The System of Governance, Wise Policies, and Market-Friendly Institutions

1. Vekarić (2011), Vol.1, shows in Table 7 the roots of the noble families; it is clear that a large proportion were not from Epidaurus. Illustratively, and indicatively of name roots is the case of one of the most powerful, the Sorgo (Sorgocevic) family. They were rich merchants from Cattaro in Albania, “rewarded by the Grand Council for bringing large amounts of sorghum and other victuals to Ragusa, at the time of the great shortages in the year 1292” (see p. 68 for Italian original text).
2. Many writers note that in very early years before about 1200, in fact, “Agora democracy” did exist with assemblies of all citizens (The *Laudum Populii*) making key decisions. See for example Carter (1972, p. 500).
3. It is interesting to note the parallel with the Slavic tradition of the “Viche,” traditionally a full assembly of the men of the community. Writing in 2014 one cannot but point to its latest application: the Euromaidan in Ukraine which also labelled itself as the people’s “Viche.”
4. We note one example using a quantitative review of 2,440 court cases: Lonza (2002). She concludes large numbers of cases were settled out of court, a practice authorities encouraged.
5. The failed efforts of a revolt about 1402 and the short-lived and futile one by Lastovo island nobles being two major exceptions.
6. This is not the actual share of the value, just the number of people; hence it may overstate the role of commoners. In the Zlatar data, the size of holdings was higher for nobles; we have not found evidence for later years.
7. As distinct from merchant fleet capacity.
8. Kaufmann and Kraay (2003) provide a good review of institutional data problems today, as well as the important argument that subjective rankings of experts may sometimes better capture effectiveness of institutions (e.g., degree of corruption) than formal measures (e.g., existence of anti-corruption laws or committees is not as meaningful as the opinions of business people about the extent of corruption).
9. Thanks to which even today’s tourism is facilitated by an airport only 20 km from the old city; if that were not available, the nearest flat areas would be much farther away.
10. De Diversis is far more colourful describing Ragusa’s openness and sophistication: “Raguseans, commoners and patricians, the sumptuous appearance of their wives, friars, government office-holders, domestics and servants, peasants from surrounding villages and their livestock, merchants from afar, Turks, Morlacs and pilgrims unroll before us... Hungarian Kings, archbishops, famous people...but also desperate individuals in search of their beloved ones, enslaved by the Turks.”
11. The “Coasian” debate in Chapter 2 as to whether in history it was governments or merchants that created good institutions is made moot in Ragusa, since the merchants were the government.

12. Similarly in the transition debates of the 1990s, critics of the big-bang liberalizing approach, led by the Nobelist Joseph Stiglitz, also agreed that stabilization of inflation and deficit financing was a priority.

8 Macro Policies 1: Fiscal Probity: The Starting Point for Good Institutions (and the Other Way Around?)

1. The sum of expenditures indicates there is a line missing, and our best guess is that this line consists of contributions to hospitals, hospices and similar, mostly because of the later referral to such social activities in the Chapter 12. Therefore we have added this line and calculated percentages accordingly.
2. Lane (1973) p. 237.
3. Lane (1973) p. 426, for the period 1313–1788.
4. The functioning of the Zecca/Mint including its partial role as a bank-entity is elaborated in Chapter 9.
5. Cremonnik (1925).
6. Di Vittorio (1983).
7. Cremonnik (1926).
8. Di Vittorio et al. (1994) p. 106.
9. Ivancevic (1976, p. 147) claims that Ragusans among themselves used the name *Monti* for the money deposits of the Ragusan State abroad, which originated from rich individuals and were inherited by the State Treasury (or hospitals, churches, monasteries, fraternities) after their death. The State Treasury used them for those purposes mentioned in the last will: salaries of college teachers, supporting vicars, for studies abroad, for the poor, for poor manufacturers, for dressing the poor, etc.
10. Vinaver (1956).
11. Lane (1973).
12. Stipetić (2000b).

9 Macro Policies 2: Monetary and Financial Prudence, Minimal Public Debt

1. Tadic (1961).
2. Vinaver (1956), Živkovic (1985) and Pierucci (2000), to mention a few.
3. Cipolla (1987).
4. Živković (1985, p. 35) claims that the government brought rules on minting golden ducats in 1517, but for the unknown reasons they quit the idea before its implementation.
5. Pierucci (2000).
6. Lane (1973) p. 333.
7. Cremonnik (1926).
8. The value of 14 per cent for Venice is clearly an outlier and a product of a single deposit; we do not know why the agreed interest rate was so favourable. In the same line, the high rate for the end of the period in Genoa was also a result of only few deposits available for the mid-rate calculation.
9. Ibid.
10. Pierucci (1994).

11. Ibidem, adapted from Rešetar (1929).
12. Based on Kurtovic (2010).

10 Institutions Friendly to Commerce: In Today's Jargon, "Ease of Doing Business"

1. As cited and translated by Stipetić (2000b); his use of "institutions" may be anachronistic, but apt. The original in de Diversis, an Italian teacher in Ragusa's gymnasium who wrote the 1434 the book *Situs Aedificiorum, Poilitiae et Laudabilim Consuetudinum Inclytae Civitatis Ragusii*, is not easily translatable, and literally refers to "acts of the authorities." "Institutions" is thus not unreasonable.
2. Speed and efficiency of courts, and its improvement over time, is the central tenet of the many works of Lonza with extensive data drawn from archives – her studies make possible the data analysis we present in the next chapter.
3. As can be verified in the *Doing Business Report* cited earlier.
4. The data are compiled from an extremely informative listing by Lucić (1993) of all such entries by one notary (there were by then a handful) – which not only transcribes each from the Archival Notary books, but defines the category, provides an overview of the process, and an extensive index of individuals named, which allows some of the further analysis we show in later tables.
5. Nenad Vekarić, Director of the History Institute in Dubrovnik, confirms to us in private communications the existence of huge amounts of economic information, but with a strong caution about the large investment of time needed to collect systematic data-sets.
6. "Minimize" is the operative word, as Krekić (1980 and elsewhere) reminds: corruption was not completely avoided, but such practices and strong oversight did keep it at levels that were probably low for the times.
7. Numerous writers in Croatia, Italy, and the West discuss Kotruljevic/Cotrugli, and some of the key ones are cited in text. For a succinct but comprehensive review of all the dimensions covered by Kotruljevic, see Stipetić (2000b).
8. Yamey (1949), one of the pioneers of modern accounting, cites Cotrugli on the importance of regular and systematic bookkeeping.
9. Thus, Butterbaugh (1945, p. 342) states: "the first known writer on book-keeping was Benedetto Cotrugli, of Ragusa ... in his treatise 'Della Mercantura e del mercante perfetto' ... in 1458."
10. Stipetić (2000b) refers to non-Croatian scholars – presumably less-biased – who have found clear evidence that Kotruljevic was the first to develop double-entry bookkeeping, in 1440, well before the 1496 work of Luca Pacioli which had earlier been thought to be the first.
11. Butterbaugh (1945) agrees the actual impact of Pacioli's work was key in history. In a personal email communication from the Dutch scholars, Postma and van Helm, they suggest that while indeed Kotruljevic briefly describes double-entry bookkeeping in 1440 and later, the first truly complete manual on how to do it, and the one which had the greatest future impact was that of Pacioli in 1496.
12. Chapter 8 in Carter (1972) gives accounts of many other such scholars.

13. We thank Kresimir Zigic for pointing this out. Dielman also suggests that Gauss was aware of the work of Boscovich.
14. Pešorda Vardić (2007) describes in detail the history and functioning of one of the biggest, St. Antunin. As in much of mediaeval and Ragusan life, a nominally religious connotation was common for commercial activities. A very detailed discussion of Bratovstva is given by Vojnović (1899–1900).
15. That there were, unsurprisingly, more in the important trading partners is shown explicitly by Carter (1972, p. 145, Figure 22). In the mining regions of Bosnia and Serbia the number of permanent resident merchants in the 15th century was as little as one or two (Vrh Bosna = Sarajevo; Borac), and as many as 15–30 in the main trading centres (Fojnica, Visoko).
16. The syllogism of Prlender is analogous to that in Puga and Trefler (2012) that Venice's economic power declined because the 1297 Serrata closed commerce to commoners and in effect imposed a market-unfriendly institution. This is explored further in Chapter 14.

11 An Open Legal System with Effective Rule-of-Law

1. <http://worldjusticeproject.org/what-rule-law>, as accessed 19 March 2014.
2. This chapter's presentation of more details about earlier measures is based to a large extent on the even earlier work of Stulli (1997).
3. We know of this date from Dorin (2012).
4. The Republic did not yet include much of the territory added later (as in Figure 5.1); hence we take a maximum population 15,000. The city within the walls at no time had much more than 5,000 inhabitants, but we take as an upper bound 7,000; even the lower bound of 4,000 may be an overestimate as in 1300 and later many new houses were being added on empty lands – indeed at least 100 of the Notary entries were for new construction and additions.
5. Ravancic explains the Monday highs by the lag in court hearings from Sunday to the next day.
6. We are also grateful to Nella Lonza for suggestions on sources and approaches provided in email communications – though of course we take full responsibility for any errors in the calculations and interpretations presented here.
7. The latter account for a perhaps surprising 29 per cent of the sample, though this is also seen in Northern Italy and may reflect the “sowing wild oats” behaviour of young nobles typical of the time.
8. In the last four rows the numbers are cumulative; hence the values comparable to the first four rows are: 93, 92, 71, and 78.
9. A tourist to Dubrovnik today, if taking a day-trip and picnic on one of the local “Karakas,” will be shown by the guide a copy of the section from the *Statut* on the rights of sailors and obligations of the captain, prominently displayed inside.
10. Bankruptcy of the Peruzzis and the Bardis in 14th century was one of the episodes of shock that could be investigated under the resilience hypothesis.
11. This was a very large fortune. In comparison, the annual salary of de Diversis as teacher in the local gymnasium in 1440 was 180 ducats plus housing and

living costs; Luetić (1969) notes that well-paid sailors in the 16th century received 2–4 ducats per day, working half a year typically, this gave them 200–300 ducats per year, while shipmasters would have about three times this amount, that is, 600–900 per year.

12. Although as noted we do undertake a softer qualitative analysis to compare Ragusa with some others in Chapter 14.

12 “Sufficient” Social Fairness Provides Stability

1. Sisak is also more positive than others on concordance of elites (p. 196): “never in the long existence of the Republic, except on rare occasions, did dissent among the nobility come out in public.” True, peasant revolts were far less common than in Western Europe at the time, and internecine nobility disputes were much less than those in the otherwise successful Italian cities. But dissent did occur many times and had to be defeated, sometimes brutally. Vekarić (2006) recounts the largest such revolt of the Lastovo Island nobles.
2. He provides many demythifying studies, including for example on the notion that slavery was completely abolished already in 1416, in Krekić (1997, Chapter IV) he makes clear from the written records that this was a mere beginning, limiting the trade in slaves from immediate hinterland to avoid conflicts with Bosnian *bans*.
3. Krekić (1997, Chapter V, p. 7). This study gives numerous other examples of actions to alleviate poverty.
4. We only note a handful: Kralj-Brassard (2012), Pešorda Vardić (2007), Carter (1972).
5. Stuard (1992) also confirms the many efforts at providing water supply by boat, and when this became insufficient the building of an aqueduct from the Ombla river (about 10 km distant), with the Onofrio Fountain at the city-end. She notes that with these projects, a new set of archival books began to be kept, *Libri Reformationes* with data on many community projects. Unlike some other authors who attribute much of Ragusa’s effective governance to Venetian customs, or make no attribution, Stuard in this chapter mentions several times the legacy from Byzantium for health care and public infrastructure. Janeković-Römer (2006) also gives the Byzantine legacy a lot of credit.
6. Not often mentioned by tourist guides, these rubbish dumps were in Pile and Ploče – that is, barely beyond the two main city gates.
7. Krekić (1997, Chapter VIII, p. 226). This article provides extensive detail on education, literacy, the first public library in 1465, book holdings, sales, and printings in Ragusa.
8. Most historians make reference to this – we cite here only Bjelovučić, partly because she discusses the late 16th century, suggesting that despite the decline of 200 years, Dubrovnik was still thriving and wealthy – an indication that while its aggregate GDP may have fallen considerably, per capita values may have held up or even increased – a hypothesis that merits further research.
9. We thank Rina Kralj-Brassard for these clarifications.

10. It is beyond the scope of the present paper to research further sources on public education expenditures in other mediaeval states, but this clearly is a potential topic for further research.
11. Studying a relatively early period of modern history, the authors were often taken aback at how current writings lack the memory of longer-term history. Thus in *The New York Review* of 12 November 2013 (p. 42), one is struck by the phrase “The foreign service...had a compelling sense of public duty, a commitment that reached back to the nineteenth century [*sic*] that with privileged status went an obligation to serve the commonweal.” Only as far back as the 19th century? Surely not.

13 Maximal Diplomacy with Minimal Military

1. Our efforts to find the necessary information in these books were not successful. There appear to be voluminous journal entries which might be compiled into annual budgets, but no summaries of annual budgets. Dubrovnik historians we have consulted were not aware of any final work of Tadic in this regard.
2. Similar but less specific demands on Ragusan contributions were made under the Hungarian overlordship period. Under the Ottomans, this was not the case as both Ragusan diplomacy and Ottoman wisdom realized that the most Ragusa could do is refuse to provide, or provide only peremptorily naval forces to Christendom’s many wars against the Turks in the 16th–18th centuries.
3. Carter (1972, p. 118) succinctly defined these threats: “The republic was in constant danger from the powerful enemies which surrounded it on all sides. The Venetians who claimed the monopoly of the Adriatic [Venice’s version of the US Manifest Destiny doctrine was the “Mare Clausum” – the closed sea]...on the mainland the King of Serbia, the Ban of Bosnia, the Lord of Hum, all watching for an opportunity to occupy Dubrovnik whose splendid harbour they envied.” One might add incidentally that such envy also provides strong circumstantial evidence of Ragusa’s success.
4. This and subsequent episodes noted in the paragraph are based on Carter (1972, pp. 51–74).
5. A dissident Christian animist-like sect, excommunicated by Rome; one of their leaders, Vuk, brother of King Trvtko, was given refuge in Ragusa in 1366. King Trvtko was duly received on a state visit with proper pomp, signed a treaty of alliance, but his demand for Vuk’s surrender was not granted, and Ragusa was not punished for this.
6. After Bosnian occupation in 1436 this was raised to 1,000; in 1440 Ragusa gave refuge to Serbian Despot George Brankovic and to appease the Sultan offered to raise the tribute to 1,400; the fall of Constantinople in 1453 resulted in a much higher value of 5,000, but in 1458 it was negotiated down to 1,500, Ragusa arguing that the recent times of troubles had made them very poor.
7. It is of interest that, apparently, the Ottomans did not make similar demands of full loyalty and military contributions from Ragusa. Perhaps more wisely, understanding this would mean its destruction by Christian forces and the

loss of a most useful trade and diplomatic intermediary. The latter is sometimes mentioned as a factor, with Ragusa being somewhat like Cold War Vienna (vide: Orson Welles' *The Third Man*) – a comfortable and mutually convenient den of spies from all sides.

8. Author's translation from the Croatian.
9. In its golden years the major balancing was between the Ottoman Empire on one side and the Venetian naval and commercial strength on the other. This is thoroughly analysed by Zlatar (1992).
10. The meaning of LIBERTAS in Ragusan history is thoroughly explored by Kuncevic (2010).

14 How Unique Was Ragusa? Some Comparisons with Venice and Others

1. Lane in many of his works; Acemoglu and Robinson (2012).
2. We have mentioned a number of writer who suggest both the Venetian and Ragusan institutions owe a great deal to unrecognized Byzantine influence.
3. Other names of Zadar throughout the centuries.
4. Klaić (1976) p. 63.
5. Ibidem, p. 117.
6. Raukar (1977) p. 301.
7. Ibidem.
8. Raukar (1977) p. 301.
9. Klaić (1976) p. 174.
10. Skok (1951) p. 85.
11. Šišić (1892).
12. Brunelli (1934).
13. Beuc (1954) p. 547.
14. Klaić (1976) p. 196.
15. E. Ashtor (1986) p. 576.
16. Mirkovic (1951) p. 43.
17. As Raukar (1977, p. 257) points out, one should distinguish shipping from maritime trade as the latter entails much broader meaning. For example, merchants from Zadar sometimes exported and imported goods on Ragusan or Italian ships.
18. S. Vekarić (1963).
19. Raukar (1977) p. 261.
20. Klaić (1976) p. 437.
21. Teja (1942) p. 87.
22. Raukar (1977) p. 304.
23. Fabijanec (2008) p. 355.
24. Klaić (1976) p. 327.
25. Harris (2003) p. 141.
26. As one example we use Raukar (1977, p. 253), which took over Tadic (1932) when noting special severity that Venice used in customs for Ragusan merchants in 1485.
27. Klaić (1976) p. 94.
28. Klaić (1976) p. 206.

29. Ćircović (1990) p. 25.
30. Kotruljević(1985) p. 22.
31. Raukar (1977) p. 73.
32. Kotruljević (1985), p. 20.
33. Ćircović (1990) p. 26.

15 A Successful Case of Institutional Optimality before Its Time: What Lessons for the 21st Century?

1. Tadic (1961, p. 1171): "J'ai l'intention de publier un tableau general des recettes et depenses de Raguse au XVI'eme at XVII'eme siècles..."
2. David Hilbert, 1930 Address to the Society of German Scientists, Königsberg.

Bibliography

(N.B.: We have included in this bibliography not only readings that were directly cited in the text, but also those that provided significant understanding to our work, as well many early important items that were referenced by others but not necessarily accessible to us.)

Abulafia, D. (1976) "Dalmatian Ragusa and the Norman Kingdom of Sicily", *The Slavonic and East European Review*, Vol. 54, No. 3, pp. 412–428.

Acemoglu, D., S. Johnson and J. Robinson (2001) "The Colonial Origins of Comparative Development: An Empirical Investigation", *American Economic Review*, Vol. 91, No. 5, pp. 1369–1401.

Acemoglu, D., S. Johnson and J. Robinson (2005) "Institutions as the Fundamental Cause of Long-Run Growth", in P. Aghion and S. Durlauf (eds), *Handbook of Economic Growth*. Volume 1. Amsterdam: Elsevier B.V. pp. XX–XX.

Acemoglu D. and J. Robinson (2012) *Why Nations Fail: Origins of Power, Prosperity and Poverty*. New York: Crown Publishers.

Allen, R.C. (2001) "The Great Divergence in European Wages and Prices from the Middle Ages to the First World War", *Explorations in Economic History*, Vol. 38, pp. 411–447.

Anselmi, S. (1976) "Relazioni economiche tra Ragusa e lo Stato Pontificio: uno schema di lungo periodo." *Nuova Rivista Storica*, set 1, Vol. 60, issue 5/6, pp. 521–534.

Ashtor, E. (1986) "Observations on Venetian Trade in the Levant in the XIVth Century", in Kedar, B.Z. (ed.), *East-West Trade in the Medieval Mediterranean*. London: Variorum Reprints. pp. 533–586.

Bachrach, J.L. (1973) "The Dinar vs. The Ducat", *International Journal of Middle East Studies*, Vol.4, No.1, pp. 77–96. – See Ch. 9 p. 2.

Backe, P., E. Gnan and P. Hartmann (eds) (2010) *Contagion and Spillovers: New Insights from the Crisis*. Vienna: SUEF-The European Money and Finance Forum.

Badurina, A. and M. Tadic (1989) "Hagiotopografija Istre I Dubrovackol Podrucja" *Radovi IPU*, 12–13/1988–89, pp. 39–63.

Bairoch, P., J. Batou and P. Chevre (1988) *La Population des villes Europeennes de 800 a 1850: B angue de Donnees et Analyses Sommaire des Resultats*. Geneve: Librairie Droz.

Balcerowicz, L. (1993) "Economic Transition in Central and Eastern Europe; Comparisons and Lessons", Second Annual IFC Lecture, Washington, D.C.: The World Bank/International Finance Corporation.

Balcerowicz, L. (2002), *Post-Communist transition: Some lessons*. London: Institute of Economic Affairs.

Balic, D. (2010) "Vrste Plovila U Kotruljevicevu Udzbeniku Plovibe", *Metodicki Ogleđi*, Vol. 17, No. 1–2, pp. 61–86.

Barford, P.M. (2001) *The Early Slavs*. Ithaca, NY: Cornell University Press.

- Basic, D. (2006) "Dubrovacko Pomorstvo od XII. do pocetka XX. Stoljeca" *Primorski Zbornik*, Vol. 44, pp. 139–177 (with English summary).
- Bauer Munic, V. (2011) "Hrvatske Zemlje U Doba Marka Antuna De Dominia" *Rijeka* ISSN 1330–6985, godina XVI, svezak 1. pstr. 59–64.
- Benevenia, L. (1886) "Il comune di Zara nel medio evo", *Annuario Dalmatico III*, Zadar.
- Benyovsky-Latin, I., and S.Ledic (2013) "Posjed Obitelji VOlcassio u Srennjovekovnom Dubrovniku, *Anali Dubrovnik*, Vol. 51/1, pp. 17060. – See Ch. 4 n. 17.
- Berkovic, S. (2009) – See Ch. 13 p. 1.
- Berkovic, S. (2010) "Foreign Policy of the Dubrovnik Republic (Example of International Cooperation and Diplomatic Skill)", *Politicka Misao*, Vol. 46, No. 4, pp. 217–220.
- Berle, A. and G Means (1932) *The Modern Corporation and Private Property*. Brownsville, N.J.: Transaction Publishers. – See ch. 2 n. 23.
- Bettarini, F. (2007) "I toscani al servizio della citta di Ragusa (Dubrovnik) nella prima metad del Quattrocento", *Medioevo Adriatico*, Vol. 1. Roma: SISAEM, pp. 135–150.
- Bettarini, F. (2012) "Dalla terra al mare: diario di un notaio in essilio". Unpublished manuscript furnished by author.
- Bettarini, F. and Pešorda Vardić (????) – See Ch. 3 n. 10.
- Beuc, I. (1954) "Statut zadarske komune iz 1305. godine", *Vjesnik Državnog arhiva u Rijeci*, Vol. II, pp. 493–781.
- Bhattacharyya, S., S. Dowrich and H. Gowley (2009) "Institutions and Trade: Competitors or Complements in Economic development?" *The Economic Record*, Vol. 85, No. 270, pp. 318–330. – See Ch. 2 p. 22.
- Biegman, N.H. (1967) *The Turco-Ragusan Relationship: According to the Firmans of Murad III (1575–1595) Extant in the State Archives of Dubrovnik*. The Hague-Paris: Mouton.
- Bjelovučić, H. (1970) *The Ragusan Republic. Victim of Napoleon and Its Own Conservatism*. Leiden: E.J. Brill.
- Blazina Tomas, Z. (2007) "Kacamorti I kuga : utemeljenje I razvoj zdravrsvene sluzbe u Dubrovniku". Dubrovnik: Zavod za Povijesne Znanosti, Monografije nj. 27 295 str.
- Bogisic, V. and C. Jirecek (1904/1990) *LIBER STATUTORUM CIVITATIS RAGUSII. COMPOSITUS ANNO 1272*. Zagreb; Sumptibus Academiae Scientiarum Et Artium, Slavorum Meridionalum, MCMIV. – Dubrovnik: reprint 1990 with Introduction by Ante Cvitanic, translation into Croatian by Mate Krizman and Josip Kolanovic.
- Bojović, B. (1998) *Raguse et L'Empire Ottoman (1430–1520)*. Paris: ed. De Bocard.
- Bojović, B. (2005) *Entre Venise et l'Empire ottoman, les métaux précieux des Balkans: (XVe-XVIe siècle)*. [Balkan precious metals between Venice and the Ottoman Empire (15th–16th centuries).] *Annales: Histoire, Sciences Sociales*, Vol. 60, Issue 6, pp. 1275–1297.
- Bonney, R. (ed.) (1995) *Economic Systems and State Finance*. Oxford: Oxford University Press and Clarendon Press, European Science Foundation.
- Bonney, R. (1995) "Revenues", Ch.13 in Bonney, R. (ed.), *Economic Systems and State Finance*. Oxford: Oxford University Press and Clarendon Press, European Science Foundation.

- Brunelli, V. (1913) *Storia della città de Zara dei tempi piu remoti sino al MDCCCXV compilata sulle fonti*, Venezia, pp. 185–210.
- Brunelli, V. (1935) "Il comune di Zara in sul finire dei tempi di mezzo", *Archivio storico per la Dalmazia*, Vol. 18, sv. 104., p. 373–388, Rome.
- Brunetti, A., G. Kisunko and B. Weder (1997) "Institutions in Transition: Reliability of Rules and Economic Performance in Former Socialist Countries", World Bank Policy Research Working Paper 1809. Washington: World Bank.
- Brutzkus, J. (1943) "Trade with Eastern Europe", *The Economic History Review*, Vol. 13, No. 1/2, pp. 31–41.
- Buiter, W. (2000) "From Production to Accumulation" *Economics of Transition*, Vol. 8, No. 3, pp. 603–622.
- Buklijas, T. (2001) "Per Relationem Medicorum: Fifteenth-Century Ragusan Criminal Records as Sources for Medical History", *Anali Dubrovnika*, Vol. 39, pp. 49–120.
- Buncic (2004) – See Ch. 3 n. 7.
- Butterbaugh, G. (1945) "Dr Stands for Debit" *The Accounting Review*, Vol. 20, No. 3, pp. 340–344.
- Carter, F.W. (1972) *Dubrovnik (Ragusa): A Classic City-State*. London, Seminar Press.
- Cipolla, C.M. (1987) *Money in Sixteenth-Century Florence*. Berkeley: University of California Press.
- Cipolla, C.M. (1994) *Before the Industrial Revolution: European Society and Economy, 1000–1700*. New York: Norton & Co., Third Edition.
- Ćircović, S. (1990) "Ragusa e il suo retroterra nel Medio Evo", in Di Vittorio, A. (ed.) *Ragusa e li mediterraneo: Ruolo I Funzioni Di Una Repubblica Marinara Tre Medioevo ed Eta Moderna*. Bari: Cacucci Editore.
- Cliff, A.D., M. Smallman-Raynor, and P. Stevens, (2009) "Controlling the Geographical Spread of Infectious Diseases: Plague in Italy, 1347–1851", *Acta Medica-Historica Adriatica*, Vol. 7, No. 2, pp. 197–236.
- Cliff, A.D., M. Smallman-Raynor, and P. Stevens (2010) – See ch. 10 p. 15.
- Coase, R. (1937) "The Nature of the Firm", *Economica*, Vol. 3, pp. 386–405.
- Coase, R. (1960) "The Problem of Social Cost", *Journal of Law and Economics*, Vol. 3, pp. 1–44.
- Čosić, S. (1996) "Administrativna struktura i plaće službenika Dubrovačke Republike (1700–1808)", *Radovi Zavoda za povijesne znanosti HAZU u Zadru*, Sv 38.
- Čosić, S. and N. Vekarić (2005) *Dubrovačka Vlastela Između Roda I Drzave: Salamankezi i Sorbonezi*. Zagreb-Dubrovnik: Zavod za Povijesne Znanosti, HAZU (with English summary).
- Čosić, S. and P. Zurek (2004) *Ragužani i Sarmati : iz povijesti dubrovačko-poljskih odnosa u drugoj polovici 18. stoljeća = I Raguzanczyzy i Sarmaci : z dziejów stosunków polsko-dubrownickich w drugiej polowie XVIII wieku*, Zagreb : Veleposlanstvo Republike Poljske u Zagrebu, 2001. / Stjepan Čosić. // *Dubrovnik Annals*, Vol. 8 / editor in chief Vladimir Stipetić.
- Cotrugli, Benedetto / (Benedikt Kotruljevic) (1458) *Il Libro Dell' Arte Di Mercatura*. Edited with introduction by Ugo Tucci. Venice: Arsenale Editrici.
- Čremošnik, G. (1925) *Novčarstvo u starom Dubrovniku*, Jugoslovenska knjiva, knj. II, god IX, Zagreb, 1925. – See Ch. 8 n. 4

- Čremošnik, G. (1951) *Spisi Dubrovačke Kancelarije. Knjiga I, Zapisis Notara Tomazina de Savere, 1278–1282*. Zagreb: Jugoslavenska Akademija Znanosti i Umjetnosti.
- Crouzet-Pavan, E. (1999) *Venise Triomphante. Les horizons d'un mythe*. Paris: Editions Albin Michel SA.
- Dadić, Z. (1997) "Mathematical Views in 16th Century Dubrovnik", *Dubrovnik Annals*, Vol. 1, pp. 25–30.
- D'Atri, S. (2010) "Per conservare la città tributaria et divota: Ragusa (Dubrovnik) and the 1590–91 Crisis", *Dubrovnik Annals*, Vol. 14, pp. 71–98.
- Davis, R. (1962) *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries*. London: MacMillan Publishers.
- Davison, D., V. Gaffney and E. Marin (eds) (2006) *Dalarnatia: Research in the Roman Province 1970–2001* (papers in honour of J.J. Wilkes. Oxford: Archeopress.
- De Diversis, F. (1440) – See ch. 7 & Ch. 10.
- De Diversis, F. (2004) *Opis Slavnoga Grada Dubrovnika* – includes original Latin of 1434. Zagreb: Dom I Svijet (introduction and Croatian translation by Zdenka Janeković-Römer).
- De Melo, M., C. Denizer and A. Gelb (1995) – See Ch. 2 p. 25.
- De Melo, M., C. Denizer and A. Gelb (1997) "From Plan to Market: Patterns of Transition", in M. Blejer and M. Skreb (eds), *Macroeconomic Stabilisation in Transition Economies*. Cambridge: Cambridge University Press.
- De Soto, H. (2000) *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.
- Di Vittorio, A. (1983) *Finanze e Moneta a Ragusa nell'etta delle crisi*. Napoli: Giannini.
- Di Vittorio, A. (ed.) (1990) *Ragusa e li mediterraneo: Ruolo I Funzioni Di Una Repubblica Marinara Tre Medioevo ed Eta Moderna*. Bari: Cacucci Editore.
- Di Vittorio, A. (1994) – See ch. 8 p. 10, and Ch. 9 p. 5; Data App. n.20.
- Di Vittorio, A. (2001) *Tra mare e Terra: Aspetti Economici I Finazieri della Republica Di Ragusa in Eta Moderna*. Bari: Cacucci Editore.
- Di Vittorio, A., S. Anselmi and P. Pierucci (eds) (1994) *Ragusa. (Dubrovnik) Una Republica Adriatica: Saggi di storia Economica e Finanziaria Bologna*: Cisalpino: Istituto Editoriale Universitario.
- Dielman, T. (2005) "Least Absolute Value Regressions: Recent Contributions", *Journal of Statistical Computation and Simulation*, Vol. 75, No. 4, pp. 263–286.
- Djankov, S., R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2003) "Courts", *Quarterly Journal of Economics*, Vol. 118, pp. 453–517.
- Doria, G. (1987) "Le assicurazioni marittime a Ragusa nel XVI secolo", *Studi Storici*, Vol. 28, Issue 1, pp. 237–242.
- Dorin, R. (2012) "Adriatic Trade Networks in the Twelfth and Early Thirteenth Centuries", in Morrisson, C. (ed.) (2012) *Trade and Markets in Byzantium*. Washington: Dunbarton Oaks Research Library and Collection. pp. 235–280.
- Encyclopaedia Britannica (1963) "Dubrovnik", pp. 727–728.
- Fabijanec, S.F. (2008) *Ocjene i prikazi: Barisa Krekich's Unequal Rivals: Essays on Relations between Dubrovnik and Venice in the 13th and 14th Centuries*, Zagreb: Zbornik Odsjeka povijesnih znanosti Zavoda povijesnih društvenih znanosti HAZU, 26.

- Fabijanec, S.F. (2012) Pomorstvo na istocnom Jadranu: trgovacki promet i pomorske opasnosti krajem srednjega vijeka i pocetkom modernoga doba, *Historijski zbornik* god. 64, br. 1.
- Ferguson, N (2011) – See ch. 1 p. 5.
- Ferguson, N (2012) *The Great Degeneration: How Institutions Decay and Economies Die*. New York: Penguin Books.
- Filipović, R. and M. Partridge (eds) (1977) *Dubrovnik's Relations with England: A Symposium*. Studies in International Cultural Relations, Vol. 1. Zagreb: University of Zagreb.
- Fogel, R. (1975) "The Limits of Quantitative Methods in History", *The American Historical Review*, Vol. 80, No.2, pp. 329–350. – See ch. 1 n. 5.
- Foretić, M. (1993) "Dubrovačka republika i rat za španjolsku baštinu 1701–1714", *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 31.
- Foretic, V. (1980) *Povijest Dubrovnika Do 1808*. (2 volumes). Zagreb: Nakladni Zavod Matice Hrvatske.
- Frati, P. (2000) "Quarantine, Trade and Health Policies in Ragusa-Dubrovnik Until the Age of George Armenius-Baglivi", *Medicina nei Secoli: Arte e Scienza*, Vol. 12, Issue 1, pp. 103–127.
- Fратиани, M. and F. Spinelli (2006) "Italian City-States and Financial Evolution", *European Review of Economic History*, Vol. 10, pp. 257–278.
- Freeland, C. (2012) *Plutocracy: The Rise of the New Global Super Rich and the Fall of Everyone Else*. New York: Penguin Books.
- Gestrin, F. (1975) GOSPODARSTVO IN DRUZBA ZAHODNOJUGOSLOVANSKIH DEZEL OD 15. DO SREDE 17. STOLETJA. ["The Economy and Society of Western Yugoslav Lands from the 15th to the Middle of the 17th Centuries"], *Zgodovinski Casopis*; Vol. 29, Issue 1/2, pp. 45–76.
- Ghosh, A. et al. (2009) "Coping with the Crisis: Policy Options for Emerging Market Countries", IMF Staff Position Note SNP/09/08. Washington: IMF.
- GINATEMPO, M. and L. SANDRI (1990) *L'Italia delle citta. Il popolamento urbano tra Medioevo e Rinascimento (secoli XII-XVI)*. Firenze: Le Lettere.
- Glaeser, E., R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2004) "Do Institutions Cause Growth?", *Journal of Economic Growth*, Vol. 9, No. 3, pp. 271–303.
- Gould, J.D. (1954) "The Trade Depression of the Early 1620's", *The Economic History Review*, New Series, Vol. 7, No. 1, pp. 81–90.
- Greif, A. (1989) "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders", *Journal of Economic History*, Vol. 49, No. 4, pp. 857–882.
- Grendi, E. (1987) "Traffico e navi nel porto di Genova fra 1500 e 1700", in Grendi, E., *La repubblica aristocratica dei genovesi*. Bologna: Il Mulino.
- Grubisa, D. (2011) "Forms of Power in the Renaissance: Uniqueness of the Dubrovnik Mode", *Politicka Misao*, Vol. 47, No. 5, pp. 165–118.
- Guiso, L., P. Sapienza and L. Zingales (2006) "Does Culture Affect Economic Outcomes?", *Journal of Economic Perspectives*, Vol. 20, No. 2, pp. 23–48.
- Gulin Zrnica, V. (1999) "The Mediterranean from a Mediterranean Angle: Renaissance Dubrovnik", *Narodna Umjetnost: Croatian Journal of Ethnology and Folklore Research*, Vol. 36, No. 1, pp. 135–156.

- Hagen, E.E. and O. Havrylyshyn (1969), "An Analysis of World Income and Growth: 1955–1964. The Proximate Causes of Growth", *Economic Development and Cultural Change*, October 1969, No. 1, Part II, pp. 1–66. – See Ch. 2 n. 18.
- Haggard, S. and L. Tiede (2011) "The Rule of Law and Economic Growth: Where are We?," *World Development*, Vol. 39, No. 5, pp. 673–685.
- Hall, R. and C. Jones (1999) "Why Do Some Countries Produce So Much More Output per Worker Than Others?" *Quarterly Journal of Economics*, Vol. 114, pp. 83–116.
- Harris, R. (1998) – See Ch. 4 n. 17 and Ch. 10 p. 16.
- Harris, R. (2003) *Dubrovnik: A History*. London: SAQI Press.
- Hartwell, C.A. (2013) *Institutional Barriers in the Transition to Market*. Houndmills, UK: Palgrave Macmillan.
- Hartwell, C.A. (2012) – See Ch. 2 n. 9, p. 8.
- Havrylyshyn, O. (1994) "The Great Transition Robbery" oped in *Financial Times*, Friday July 22. – See Ch. 2 n. 22.
- Havrylyshyn, O. (2006) *Divergent Paths in Post-Communist Transition: Capitalism for All or Capitalism for the Few?* Houndmills, UK: Palgrave MacMillan.
- Havrylyshyn, O. (2008) "Growth Recovery in CIS Countries: The Sufficient Minimum Threshold of Reforms", *Comparative Economic Studies*, Vol. 50, pp. 53–78.
- Havrylyshyn, O. and R. van Rooden (2003) "Institutions Matter in Transition, But So Do Policies", *Comparative Economic Studies*, Vol. 45, No. 1, pp. 2–24.
- Havrylyshyn, O. and N. Srzentić (2012) "Economy of Ragusa, 1300–1800: The Tiger of Mediaeval Mediterranean", presented at 18th Dubrovnik Economic Conference, 29 June 2012 (on website: www.hnb.hr/Konferencije/Dec.18.).
- Havrylyshyn, O. and N. Srzentić (2013) "Economy of Ragusa, 1300–1800" The Tiger of Mediaeval Mediterranean", *Comparative Economic Studies*, Vol. 55, pp. 201–231.
- Hrabak, B. (1985) "Usesce Katalonaca U Dubrovackom Prometu Zrnastom Hranom, Solju, Koralima I kreditima (Do 1520 Godine)", *Anali Zavoda Za Povijesne Znanosti u Dubrovniku*, Vol. 22–23, pp. 41–78.
- Hrabak, B. (1991) "Trgovinske veze Pezara I Dubrovnika do 1700 godine", *Anali Zavoda za Povijesne Znanosti u Dubrovniku*, Vol. 29, pp. 23–79.
- <http://worldjusticeproject.org/what-rule-law>, as accessed 19 March 2014. – See ch. 11 n. 2.
- Inchiestri, U. (1929) "Di Nicolo Matafari e del suo 'Thesaurus pontificum' in relazione con la cultura giuridica nel secolo XIV", *Archivio Storico per la Dalmazia*, VII.
- IMF, Strategy Policy and Review Department (2009) *Review of Recent Crisis Programs*. Washington, DC: The IMF, 14 Sept. 2009.
- IMF, Strategy Policy and Review Department (2010) "How Did the Emerging Markets Cope in the Crisis", Washington: paper prepared for Board discussion, 15 June 2010.
- Ivancevic, V. (1976) *Dubrovacki novcani polozi u inozemstvu pred pad Republike*, Edt. Grga Novak, Anali historijskog odjela centra za znanastveni rad JAZU, Sv.XIII-XIV, Dubrovnik.
- Janeković-Römer, Z. (2003) "Nasilje Zakona: Gradska Vlat I Privatni Zivot U kasnosrenjovevnom I Ranovjekovnom Dubrovniku", *Anali Zavoda za povijesne*

- znanosti Hrvatske Akademije znanosti I umjetnosti u Dubrovniku*, Vol. 41, Svibanj, pp. 9–44.
- Janeković-Römer, Z. (2006) "O Utjecaju Bizantske Kulture U Rensansnom Dubrovniku I Dalmaciji" *Anali Zavoda za povijesne znanosti Hrvatske Akademije znanosti I umjetnosti u Dubrovniku*, No. 44, Travanj 2004, pp. 7–24.
- Jirecek, K. (1915) *Vasnost Dubrovnika U Trgovackoj Povijesti Srednega Vijeka*. Dubrovnik: Boskovicева Biblioteka – translation from German to Croatian by Bozo Cvjetkovic.
- Jirecek, K. (1948) – See ch. 13 p. 12.
- Jovic Gazic, V. (2011) "Urban Development from Late Antiquity to the Middle Ages: Dubrovnik, Split, Trogir, Zadar – The State of Research", *Archeologia Adriatica*, Vol. 5, pp. 151–196.
- Juriscic, M. (2006) "The Maritime Trade of the Roman Province", in Davison, D., V. Gaffney and E. Marin (eds), *Dalarnatia: Research in the Roman Province 1970–2001* (papers in honour of J.J. Wilkes. Oxford: Archeopress. pp. 172–192.
- Kaufmann, D. and A. Kraay (2003) – See Ch. 7 n. 8.
- Kaufmann, D. and A. Kraay (2005) – See Ch. 2 n. 13, p. 10.
- Kaufmann, D. and A. Kraay (2008), "Governance Indicators: Where Are We. Where Should We Be Going?", *World Bank Research Observer*, Vol. 23, No. 1, pp. 1–30.
- Kaufmann, D., A. Kraay and M. Mastruzzi (2007) "The Worldwide Governance Indicators Project: Answering the Critics", World bank Policy Research Working Paper 4149. Washington: The World Bank.
- Kaufmann, D., A. Kraay, and P. Zoido-Lobaton (1999) "Government Matters", *World Bank Policy Research Paper No. 2196*. Washington D.C.: The World Bank. – See ch. 2 p. 25.
- Kedar, B. (1976) *Merchants in Crisis: Genoese and Venetian Men of Affairs and the Fourteenth-Century Depression*. New Haven: Yale University Press.
- Klaić, N. and I. Petricioli (1976) *Prošlost Zadra II-Zadar u srednjem vijeku do 1409*. Zadar: Filozofski fakultet Zadar.
- Knack, S. and P. Keefer (1995) "Institutions and Economic Performance: Cross-Country Tests Using Alternative Measures", *Economic and Politics*, Vol. 7, pp. 207–227.
- Knezovic, P. (2005) "Seventeenth Century Marian Shrines of Dubrovnik According to Wilhelm Gumpfenberg's Atlas Marianus" *Anali Zavoda za povijesne znanosti Hrvatske Akademije znanosti I umjetnosti u Dubrovniku*, No. 43, pp. 75–92.
- Knight, M. (1950) "Review of Fernand Braudel, *la Mediterranee et le Monde Mediterranee a l'epoque de Philippe II*", *The Journal of Economic History*, Vol. 10, No. 2, Nov. 1950, pp. 212–216.
- Körner, M. (1995) "Expenditures", in Bonney, R. (ed.), *Economic Systems and State Finance*. Oxford: Oxford University Press and Clarendon Press, European Science Foundation.
- Košćak, V. (1993) "Teritorijalni Razvitak Dubrovačke Republike", *Encyclopaedia Moderna*. Zagreb., god. 14, br. 43 (br. 3), pp. 200–221.
- Kostic, V. (2008) "Sketches from the Life of Ragusan Merchants in London in the Time of Henry VIII", *Dubrovnik Annals*, No. 12, pp. 45–56.
- Kotruljević, B. (preveo Muljačić, Ž, uredili Radičević, R. i Muljačić, Ž) (1985) *O trgovini i o savršenu trgovcu, JAZU Djela znanosti Hrvatske, Svezak I*. Zagreb.

- Kralj-Brassard, Rina (2012) "Pozornice Milosrdja: SMjestaj Zgrada Dubrovackog Nahodista (1432–1927)", *Anali Dubrovnik*, Vol. 50, pp. 39–62.
- Krasic, S. (2001) "Opis hrvatske jadranske Obale U Putovanje Dominikana Felix fabbrri (Schmid) 1483/84", *Anali Dubrovnik*, Vol. 39, pp. 35–216.
- Krekić, B. (1961) *Dubrovnik, Raguse, et le Levant au Moyen Age*. Paris: Mouton & Co.
- Krekić, B. (1971) *Dubrovnik in the 14th and 15th Centuries: a City between East and West*. Norman: University of Oklahoma Press.
- Krekić, B. (1979) "Italian Creditors in Dubrovnik (Ragusa) and the Balkan Trade, Thirteenth through Fifteenth Centuries", in Center for Medieval and Renaissance Studies, UCLA, *The Dawn of Modern Banking*. New Haven: Yale University Press. pp. 241–254.
- Krekić, B. (1980) *Dubrovnik, Italy and the Balkans in the Late Middle Ages*. London: Variorum Reprints.
- Krekić, B. (1997) *Dubrovnik: A Mediterranean Urban Society, 1300–1600*. Aldershot: Variorum.
- Krechich, A. (1926) *La curia consulum et maris del comune medioevale zaratino e alcuni suoi atti*, Atti I.
- Krizman, B. (1951) *O Dubrovačkoj Diplomaciji*. Zagreb: Mala historijska knjižnica, Br. 3.
- Krizman, B. (1952) "Memoire Bara Bettere Austrijskom Generalu T. Milutinovic O Dubrovackoj Repunbblici iz 1815 Godine", *Anali Historijskog Instituta U Dubrovniku*, Vol. I, pp. 423–464.
- Krueger, A. (1973) "The Political Economy of a Rent-Seeking Society", *American Economic Review*, Vol. 64, No. 3, pp. 291–303.
- Kuncevic, L. (2010) "On Ragusean Libertas in the Late Middle Ages", *Dubrovnik Annals*, Vol. 14, pp. 25–69.
- Kuncic, A., (2013) "Institutional Quality Data Set". Pre-publication draft, provided by author.
- Kuran, T. (2011) *The Long Divergence: How Islamic Law Held Back the Middle East*. Princeton: The Princeton University Press.
- Kurtovic, E. (2010) *Iz Historije Bankarstva Bosne i Dubrovnika u Srednjem Vijeku*. Beograd: Istorijski Institut, Posebna Izdanja, (with English summary).
- Kuttner, R. (2013) "The Debt We Shouldn't Pay" *The New York Review*, 9 May 2013, pp. 16–18. (a review of David Graeber, *Debt: The First 5,000 Years*. Brooklyn, NY, Melville House Publishing, 2012).
- Kuzic, K. (2010) "Religious Conditions on the Croatian Coast Based on the Travelogues of German Pilgrims (from the Fourteenth to the Seventeenth Century)", *Zbornik Odsjeka za povijesne znanosti HAZU*, Vol. 28, pp. 40–66.
- Ladic, Z. (2003) "On Some Aspects of Care for Poor and Marginalised Individuals in Dalmatian Late Mediaeval Communities", *Zbornik Odsjeka za povijesne znanosti HAZU*, Vol. 20, pp. 1–27.
- Lane, F. (1933) "Venetian Shipping During the Commercial Revolution" reproduced as Ch. 1, pp. 22–50, in Pullan, Brian (1968), *Crisis and Change in the Venetian Economy in the Sixteenth and Seventeenth Centuries*. London: Methuen and Co. Ltd.
- Lane, F. (1934) *Venetian Ships and Shipbuilders of the Renaissance*. Baltimore: The Johns Hopkins Press.

- Lane, F. (1966) *Venice and History: The Collected Papers of Frederic C. Lane*. Baltimore: The Johns Hopkins Press.
- Lane, F. (1973) *Venice: A Maritime Republic*. Baltimore. The Johns Hopkins Press.
- Lane, F. (1987) *Studies in Venetian Social and Economic History*. London: Variorum Reprints, edited by B.G. Kohl and R.C. Mueller.
- Lane, F. and R. Mueller (1985) *Money and Banking in Mediaeval and Renaissance Venice*. Baltimore: The Johns Hopkins Press.
- Lang, S. and A. Borovecki (2001) "Health Care and Social Institutions of Old Dubrovnik", *Revija za Socijalnu Politiku*, Vol. 8, No. 3, pp. 310–308.
- La Porta R., F. Lopez-de-Silanes, A. Shleifer and M. Vishny (1998) "Law and Finance", *Journal of Political Economy*. Vol. 106, pp. 1113–1153.
- La Porta, R., F. Lopez-de-Silanes and A. Shleifer (2008) "The Economic Consequences of Legal Origins", *Journal of Economic Literature*, Vol. 46, No. 2, pp. 285–332.
- La Porta, Lopes-de-Silanes, Shleifer, and Vishny (1998) – See ch. 2 p. 18.
- Lonza, N. (1997) *Pod Plaštem Pravde*. Dubrovnik: Zavod za Povijesne Znanosti, HAZU.
- Lonza, N. (2002) "Tuzba, Osveta, Nagodba: Modeli Reagiranja na Zlocin u Srednjovjekovnom Dubrovniku", *Analni Dubrovnik*, 2002, Vol. 40, pp. 57–104.
- Lonza, N. (2003) "Srednjovjekovni Zapisnici Dubrovackog Kaznenog Suda: Izvorne Cjeline I Arhivsko Stanje", *Analni Dubrovnik*, Vol. 40, pp. 45–74.
- Lonza, N. and A. Marinović (1998) "Dubrovačko pomorsko pravo : povijesni pregled. Knjiga 1: Statutarno pomorsko pravo srednjovjekovne dubrovačke komune. Split" *Analni Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 37.
- Lonza, N. and Z. Sundrica (eds) (2005) *Odluke dubrovačkih vijeća: 1390–1392*. Zagreb, Dubrovnik: Monumenta historica Ragusina; knj. 6.
- Lucić, J. (1993) *Spisi Dubrovačke Kancelarije, Knjiga IV. Zapisi notara Andrije Benese 1295–1301. Precepta rectoris II (1299–1301). Testamenta II (1295–1301)*. Zagreb: Monumenta Ragusina, Hrvatska Akademija Znanosti I Umjetnosti.
- Lucić, J. (1977) "The Earliest Contacts Between Dubrovnik and England", in Filipović, R. and M. Partridge (eds) (1977), *Dubrovnik's Relations with England: A Symposium*. Studies in International Cultural Relations, Vol. 1. Zagreb: University of Zagreb. pp. 9f–16.
- Luetić, J. (1961) – See Ch. 3 p. 16, and Ch. 7 p. 6, and Ch. 10 p. 8; and Ch. 13 p. 3; Data Appendix n. 15.
- Luetić, J. (1964) *Brodovlje Dubrovačke Republike XVII Stoljeća*. Dubrovnik, Zagreb: Građa za pomorsku povijest Dubrovnika; knj. 3.
- Luetić, J. (1969) *1000 Godina Dubrovackog Brodarstva*. Zagreb: Zora.
- Luetić, J. (1977) "English Mariners and Ships in Seventeenth Century Dubrovnik", in Filipović, R. and M. Partridge, (eds) (1977), *Dubrovnik's Relations with England: A Symposium*. Studies in International Cultural Relations, Vol. 1. Zagreb: University of Zagreb. pp. 216–236.
- Luetić, J. (1979) "Naši pomorci stranog državljanstva članovi posada jedrenjaka Dubrovačke Republike 1797–1807: prilog upoznavanju povezivanja i stvaranja zajedništva naših naroda u prošlosti" *Analni Zavoda za povijesne znanosti Istraživačkog centra Jugoslavenske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 17.

- Luetić, J. (1984) "Pomorci i jedrenjaci Republike Dubrovačke" *Anali Zavoda za povijesne znanosti Istraživačkog centra Jugoslavenske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 22/23.
- Luetić, J. (1997) *Brodari i Pomorci Dubrovačke Republike*. Zagreb: Knjižnica Studije, monografije, kritike).
- Luetić, J. (1983) Iz inventara pokretne imovine mornara i kormilara koji su plovili na jedrenjacima Dubrovačke Republike 1788–1804. : (zlatni i srebrni ukrasni predmeti dubrovačkih mornara) / J. Luetić. // Zbornik za narodni život i običaje Južnih Slavena. Knj. 49. (1983) / [urednik Mirko Marković].
- Lume, L. (1977) "L'ARCHIVIO STORICO DI DUBROVNIK. [The historical archives of Dubrovnik.]" *Quaderni della Rassegna degli Archivi di Stato*, Vol. 46, pp. 7–181.
- Machiavelli, N. (1996 translation of 1531 original) *Discourses on Livy*. Chicago: 1996, The University of Chicago Press. Translated by H.C. Mansfield and N. Tarcov.
- Madden, T.F. (2012) *Venice. A New History*. New York: Viking, Penguin Group.
- Maddison, A. (2001) *The World Economy: A Millennial Perspective*. Paris: The Organization for Economic Co-operation and Development. – See Data Appendix n. 11.
- Maddison, A. (2010) Statistics on World Population, GDP, and GDP per capita. 1–2008 AD accessible: http://www.ggdc.net/MADDISON/HistoricalStatistics/vertical-file_02–2010.xls.
- Mananchikova, N.P. (1977) "Rana Manufaktura I Socijalni Aspekti Povijesti Zanatskog Stanivništva Dubrovnika U XV I Na Pocetku XVI Sotljeća" *Radovi Instituta Za Hrvatsku Povijest*, Zagreb No. 10.
- Mananchikova, N.P. (1992) "КУПЕЧЕСКИИ КАПИТАЛ I ТОВАРНОЕ ПРОИЗВОДСТВО V ДУБРОВНИКЕ XIV V. [Merchant capital and the production of goods in 14th-century Dubrovnik.]" *Sovetskoe Slavyanovedenie*; Sept. 1992, Issue 5, pp. 36–47.
- Marinković, Ana (2007) "Teritorijalno širenje Dubrovačke Komune/Republike i Crkve Njezinih Svetaca Zaštitnika" *Anali Zavoda za Povijesne Znanosti Hrvatske Akademije Znanosti i Umjetnosti u Dubrovniku*. Sv. 45, pp. 219–234.
- Marinovic, Ante (1985) "Postanak I Prvi Spisi Kancelarija Srednovjekovnih Dalmatinskih gradova, Posebno Dubrovnika I Kotra u XIII I XIV Stoljecu" *Anali Zavodu Za Povijesne Znanosti U Dubrovniku*. Vol. XXII–XXVIII, pp. 7–23.
- Marković, M. (1991) "Dubrovnik i Dubrovačka Republika na starim geografskim kartama", *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 29 (1991) / glavni i odgovorni urednik Vladimir Stipetić.
- Matinkovic (2009) – See Ch. 4 n. 13.
- Menard, C. and M. Shirley (eds) (2005) *Handbook of New Institutional Economics*. Dordrecht: Springer.
- Mijan, Domagoj (2004) "Maritime Regulations of the City of Zadar in Comparison with the Same Regulations in the Venetian, Dubrovnik and Split Statutes", *Radovi Povijene Znanosti HAZU u Zadru*, Vol. 46, No. 45 pp. 109–168.
- Milicic, B. (1993) "Exchange and Social Stratification in the Eastern Adriatic: A Graph-Theoretic Model", *Ethnology*, Vol. 32, No. 4, pp. 375–395.

- Miović, V. (2005), "Review of Filip De Diversis. *Opis Slavonoga Grada Dubrovnika (Description of the famous City of Dubrovnik)*, in *Anali Dubrovnika*, No.43, 2005, pp. 265–266.
- Miović (2010) – See ch. 7 p. 9.
- Miović-Perić, V. (2001). "Dragomans of the Dubrovnik Republic: Their Training and Career *Dubrovnika Annals*, Vol. 5, pp. 81–94.
- Mirković, M. (1951) "Ekonomski odnosi u Trogiru u XIII. St.", *Historijski zbornik* IV, 1–45.
- Mirkovich, N. (1943) "RAGUSA AND THE PORTUGUESE SPICE TRADE", *Slavonic & East European Review*, American Series Vol. 2, Issue 1, pp. 174–187.
- Miskinin, Harry A. Herlihy David, Udovitch, Abraham (eds) (1977) New Haven: Yale University Press.
- Mitić, I. (1987) Organizacija kopnene i pomorske obrane dubrovačke države-republike od stjecanja nezavisnosti 1358. do dolaska Francuza 1806. *Anali Zavoda za povijesne znanosti Istraživačkog centra Jugoslavenske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 24/25 (1987) / glavni i odgovorni urednik Vladimir Stipetić.
- Mitić, I. (1988) *Dubrovačka država u međunarodnoj zajednici (od 1358. do 1815.)*. Zagreb: JAZU; Nakladni zavod Matice Hrvatske.
- Morck, R., D. Wolfenzon and B. Yeung (2005) "Corporate Governance, Economic Entrenchment and Growth", *Journal of Economic Literature*, Vol. 43, pp. 655–720.
- Morrison, C. (ed.) (2012) *Trade and Markets in Byzantium*. Washington: Dunbarton Oaks Research Library and Collection.
- Muljević, V. (1991) "Mjere i mjerenja u Dubrovačkoj Republici", *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 29 / glavni i odgovorni urednik Vladimir Stipetić.
- Murrell, P. (1992) "Evolution in Economics and in the Reform of Centrally Planned Economies", in C. Clague and C. Rausser (eds), *The Emergence of Market Economies in Eastern Europe*. Cambridge, Mass.: Blackwell Publishers. pp. 35–53.
- Nicetic, A. (2002) "Tiremes and Biremes –Galleys of The Dubrovnik Republic", *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, Vol. 40, pp. 9–56.
- North, D. (1981) *Structure and Change in Economic History*. New York: W.W. Norton & Co.
- North, D. (1990) *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. (1994) – See Ch. 2 – epigraph.
- North, D. and R.P. Thomas (1973) *The Rise of the Western World: A New Economic History*. Cambridge: Cambridge University Press.
- Novak, G. (1951) *Uprava i podjela stanovništva u kasnorimskim i ranoromanskim gradovima Dalmacije*. Zbornik: Filozofskog fakulteta u Zagrebu I.
- Ogilvie, S. (2011) *Institutions and European Trade. Merchant Guilds, 1000–1800*. Cambridge: Cambridge University Press.
- Ogilvie (2012) – See Ch. 2 p. 27, 34.
- Olson, M., (1965) *The Logic of Collective Action*. Cambridge, MA: The Harvard University Press. – See ch. 2 p. 2.

- Olson, M. (1882) *The Rise and Decline of Nations. Economic Growth, Stagflation, and Social Rigidity*. New Haven: Yale University Press.
- Olson, M. (1993) "Dictatorship, Democracy and Development", *American Political Science Review*, Vol. 87, pp. 567–575.
- Ozveren, E. (2000) "Shipbuilding 1590–1790" Review (Fernand Braudel Center, Research Foundation of SUNY), Vol. 23, No. 1, pp. 15–86.
- Palic, V. (2006/2007a) "Neki primjere Sudovanja U Srednjovekovnom Dubrovniku", *Povijesni Zbornik*, Osijek: 2006/2007, br. 1 & 2, pp. 17–27.
- Palic, V. (2006/2007b) "Naplata Sudskih pristojba U Srednjovekovnom Dubrovniku", *Povijesni Zbornik*, Osijek: 2006/2007, br. 1 & 2, pp. 41–83.
- Palic, V. (2008) "Bankruptcy and Sequester of Property of Traders of Some Settlements of Dubrovnik in the 15th and 18th Century", *Povijesni Zbornik: Godisnjak za Kulturu i Povijesno Nasljedje*, Vol. 2, No. 3, pp. 73–83.
- Pamuk, S. (2000) *A Monetary History of the Ottoman Empire*. Cambridge: Cambridge University Press.
- Parker, G. and L.M. Smith (eds) (1997) *The General Crisis of the Seventeenth Century*. London: Routledge, Second edition.
- Partridge, M. (1977) "Ragusa and the Royal Society of London", in Filipovic, R. and M. Partridge, (eds). *Dubrovnik's relations with England: a symposium Zagreb: Studies in international cultural relations, 1977* Vol. 1 – See ch. 6 n. 7.
- Pešorda Vardić, Z. (???) "The Books of Communal Real Property and the System of Rent of the Dubrovnik Republic", pp. 85–94 English – –GET REFIN hrcak.
- Pešorda Vardić, Z. (2007) "'Pucka vlastela' :Drustvene structure dubrovacke bratovstine Sv. Antuna u kasnom srednjem vijeku", *Povijesni Prilozi*, Vol. 33, No. 33 pp. 215–237.
- Pešorda Vardić, Z. (2011) "Cittadini Raguse: gradansk elita kasnosrednjvjekovnog Dubrovnika", [??]. Zbirka ZC, 42. pp.148–168] ?or? Janez Mlinar, Bojan Balkovec, (eds) *Mestne Elite U Srednjem in Zgodnjem Novem Veku Med Alpami, Jadranom I Panonsko Nizino*. Ljubljana: Zveza Zgodovinskih Drustev Slovenije. pp. 187–207.
- Pešorda Vardić, Z. (2012) *On the Threshold of Power: The Antunini of Dubrovnik in the late Middle Ages*. Dubrovnik: Zavod za povijesne znanosti HAZU u Dubrovnika I Hrvatski Insittut za povijest.
- Petric, N. (2009) "Pretpovijest Dubrovnika" *VAMZ*, 3s., XLII, pp. 509–517.
- Pierucci, P. (1994) "La zecca Ragusea come banca pubblica nella seconda metà del XVIIIsecolo: il ruolo economico", in A. Di Vittorio, S. Anselmi, P. Pierucci, (eds) *Ragusa (Dubrovnik) Una Republica Adriatica*. Bologna: Istituto Editoriale Universitario. pp. 247–257.
- Pierucci, P. (2000) *Una porta verso l'Oriente. La Zecca di Ragusa (secc. XVII–XVIII)*. Torino: Giappichelli.
- Pinelli, P. (2008) "Od Dubrovnika Do Firenze: Biljeske O Novacenju Posluge U 15. Stolecu" *Anali Dubrovnika*, No. 46, pp. 65–80.
- Pirenne, H. (1937) *Economic and Social History of Medieval Europe*. New York: Harcourt Brace & World, Inc.
- Postan, M. and E.E. Rich (eds) (1952) *The Cambridge Economic History of Europe*. Cambridge: Cambridge University Press.
- Praga, G. (1954) *Storia di Dalmazia*. Padova: CEDAM.
- Prlender, I. (2005) "Meditranska trgovacka republika Dubrovnik pred izazovom oceana" *RADOVI-Zavod za Hrvatsku Povijest*, Vol. 37, pp. 55–62.

- Puga, D. and D. Trefler, (2012) "International Trade and Institutional Change: Medieval Venice's Response to Globalisation", London L Centre for Economic Policy Research. Discussion paper No. 9076 (www.cepr.org).
- Pullan, B. (1968) *Crisis and Change in the Venetian Economy in the Sixteenth and Seventeenth Centuries*. London: Methuen and Co. Ltd.
- Putanec, V. (1993) "Naziv Labusedum is 11 St. Za Grad Dubrovnik", *Rasprave Instituta za Hrvatski Jesik I Jezikoslovlje*, Vol. 19, No. 1.
- Raguz, S. and J. Keros-Naglic (1999) "Povijesni pregled stomatoloske djelatnosti u Dubrovniku" *Asta Stomatol Croat*, Vol. 33, No. 3. pp. 373–378.
- Rajan, R. and L. Zingales (2003) *Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity*. Mew York: Crown Business Publishers. – See Ch. 2 p. 29.
- Ramsay, G. (1997) "The City of London and the Republic of St. Blaise in the Later Sixteenth Century", in Filipović, R. and M. Partridge (eds) (1977), *Dubrovnik's Relations with England: A Symposium*. Studies in International Cultural Relations, Vol. 1. Zagreb: University of Zagreb. pp. 31–48.
- Raukar, T. (1968–1969) *Prilog poznavanju sistema prihoda dalmatinskih gradova u XIV*. Stoljeću: Historijski zbornik XXI–XXII.
- Raukar, T. (1969/70) *Zadarska trgovina solju u XIV. I XV*. Stoljeću: Radovi Odsjeka za povijest Filozofskog fakulteta u Zagrebu.
- Raukar, T. (1977) *Zadar u XV stoljecu*, Zagreb: Institut za hrvatsku povijest Sveuciliste u Zagrebu.
- Ravancic, G. (2004) "Priloig Proucavanje Crne Smrti U Dalmatinskon gradu (1348–1363)", *Povijesni Prilozi*, Vol. 26, No. 26, pp. 7–17.
- Ravancic, G. (2007) "Historiografija o epidemiji Crne Smrti s polovice 14. Stoljeca", *Povijesni Prilozi* Vol. 33, pp. 195–214.
- Ravancic, G. (2010a) "Kvantifikacija Svakodneve – Primjer Dubrovackih Krcmi", *Povijesni Prilozi*, Vol. 30, No. 39, pp. 11–21.
- Ravancic, G. (2010b) *Time of Dying – Black Death in Dubrovnik*. Zagreb: Hrvatski Institut za Povijest, Monografije.
- Ravancic, G. (2011) "Oporuke, Oporucitelji I primatelji oporucnih legata u Dubrovniku s kraja trinaestoga I u prvoj polovici cetnaestoga stoljeca", *Povijesni Prilozi*, Vol. 40, pp. 97–120.
- Reinhart, C. and K. Rogoff (2009) *This Time It's Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press.
- Rešetar, M. (1929) Dubrovačko Veliko vijeće in "Dubrovnik" god. I, br. 1, 2, Dubrovnik
- Rodrik, R. (1999) Institutions for High-Quality Growth: What They Are and How to Acquire Them", Mimeo, Harvard University, Oct. 1999.
- Rodrik, D. (2000), "Trade Policy Reform as Institutional Reform", in B.M. Hoekman, P. English, and A. Matoo (eds), *Development, Trade and the WTO: A Handbook*. Washington, D.C. The World Bank.
- Rodrik, D. and A. Subramanian (2004), "From Hindu growth to Productivity Surge: The Mystery of Indian Growth Transition. "Mimeo, Harvard University. March 2001.
- Rodrik, D., A. Subramanian and F. Trebbi (2004) "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economics Development", *Journal of Economic Growth*, Vol. 9, No. 2, pp. 131–165.

- Roller, D. (1955) *Agrarno-proizvodni odnosi na području Dubrovačke republike od XIII. do XV. Stoljeća*. Zagreb: Građa za gospodarsku povijest Hrvatske; knj. 5.
- Rossi, S. (2011) "Storia e Monetazione di Ragusa, oggi Dubrovnik" as accessed: www.roth37.it/COINS/Ragusa/index.html, 7/27/2011.
- Russell, E. (1918) "The Societies of the Bardi and The Peruzzi and Their Dealings with Edward III, 1327–45", pp. 93–135 in George Unwin (ed.) *Finance and Trade Under Edward III*; as reproduced in www.british-history.ac.uk/report.aspx?compid=33008.
- Ruza, F. (1992) "Poduzetnistvo U Djelu Benka Koptuljevica", *Zbornik Radova Fakultet Organizacije I Informatike Varazdin*, Vol. 16, pp. 193–197.
- Sachs, J. and A. Warner (1995) "Economic Reform and the Process of Global Integration", *Brookings Papers on Economic Activity*, 1995, No. 1. pp. 1–118.
- Salverte, E. (1835) *Dela Civilization: Venise, Raguse*. Paris: L. Rosier. (gentu ref: hth01.000376260).
- Sanjek, F. (1996) *Jean Stojković de Raguse (1392–1395 – 1443) et l'idée de l'intégration européenne au XVe siècle*. Paris: Ed. du Cerf.
- Sebecic, B. (1996) "The Bitumen Trade in Dalmatia Between the 14th and 15th Centuries", *Rudarsk-Geolosko-Naftni zbornik*, Vol. 8, No. 1, pp. 129–138.
- Seferovic, R. (2006) Recension of "Voje, I.: Poslovna uspjesnost trgovcev v sred-njeveskom Dubrovniku, Znanstveni institut Filozofske fakultete, Ljubljana, 2003. ", *Dubrovnik Annals*, Vol. 10, Dubrovnik.
- Seferovic, R. (2008) "The Librarii in Dubrovnik's Civil Service in the 16th century", *Arhivski Vjesnik*, No. 51, pp. 371–393.
- Sehdev, P. (2002) "The Origin of Quarantine", *Clinical Infectious Diseases*, Vol. 35, No. 9, pp. 1071–1072.
- Skegro, A. (2006) "The Economy of Roman Dalmatia", in Davison, D., V. Gaffney and E. Marin (eds), (2006) *Dalomatia: Research in the Roman Province 1970–2001* (papers in honour of J.J. Wilkes. Oxford: Archeopress. pp. 149–174.
- Skenderovic, R. (2000) "Prilog Proucavanju Vojne organizacije Dalmatinskih Komuna U Srednjem Vijeku" *Anali Dubrovnik*, Vol. 38, pp. 65–87.
- Skok, P. (1951) Tri starofrancuske hronike o Zadru u 1202 godini, Jugoslavenska Akademija Znanosti i Umjetnosti.
- Šišić, F. (1892) *Kako je osvojen Zadar 1202*. Godine, Vijenac, Zagreb.
- Šišak, M. (2011) "Dubrovnik Republicanism and its Ideologies", *Politicka Misao*, Vol. 47, No. 5, pp. 179–200.
- Spisarevska, I.D. (1974) "DE L'ACTIVITÉ DES ASSOCIATIONS COMMERCIALES DE RAGUSE (DUBROVNIK) DANS LES TERRES BULGARES AUX XVe ET XVIe SIÈCLES. [The Activity of Dubrovnik Commercial Associations in Bulgarian Lands in the 15th and 16th Centuries]" *Bulgarian Historical Review*, Vol. 2, Issue 2, pp. 90–104.
- Spremic, M. (1979) "BENEDETTO DE COTRUGLI, UN RAGUSEO DEL SECOLO XV: MENTALITA E POTERE. [Benedetto de Cotrugli, Citizen of Ragusa, in the 15th Century: Mentality and Power]" *Annali della Facolta di Scienze Politiche: Materiali di Storia*, Vol. 16, Issue 4, pp. 191–199.
- Stasavage, D. (2013) "Was Weber Right? City Autonomy, Political Oligarchy and the Rise of Europe", New York: New York University Draft paper, Dept. of Political Science (as provided by author).
- Stavrianos, L.S. (1966) *The Balkans Since 1453*. New York: Holt, Rinehart and Winston.

- Stella, D. (1959) "Crisis and Transformation in Venetian Trade", reproduced as Ch. 4, pp. 88–105, in Pullan, B. (1968) *Crisis and Change in the Venetian Economy in the Sixteenth and Seventeenth Centuries*. London: Methuen and Co. Ltd.
- Stipetić, V. (2000a) "Financije i obnova gospodarstva Dubrovačke Republike nakon potresa 1667. godine u djelu Stjepana Gradića", in *Tendencije u razvoju financijske aktivnosti države: zbornik radova: znanstveni skup povodom 100. obljetnice tiskanja knjige Stjepana Posilovića "Financijska znanost"*, HAZU, Zagreb: urednik Gordan Družić.
- Stipetić, V. (2000b) "The Legacy of 15th Century Dubrovnik Scholars in Economic Thought", *International Review of Economics and Business*, Vol. 3, No. 2, pp. 17–38.
- Stipetić, V. (2001) – See Ch. 10 p. 9.
- Stipetić, V. (2004) "Population and Gross Domestic Product of Croatia (1500–1913) in the Light of Angus Maddison's Book *The World Economy: A Millennial Perspective*", *Dubrovnik Annals*, Vol. 8, pp. 109–176.
- Stoianovich, T. (1960) "The Conquering Balkan Orthodox Merchant", *The Journal of Economic History*, Vol. 20, No. 2, pp. 234–313.
- Stuard, S.M. (1976) "The Adriatic Trade in Silver", *Studi Veneziani XVII–XVIII*. Firenze: Leo S. Olschki, Editore, 1975–1976.
- Stuard, S.M. (1976/1977) – See Ch. 1 n. 6.
- Stuard, S.M. (1980) – See Ch. 4 p. 9.
- Stuard, S.M. (1981) "Dowry Increase and Increment in Wealth in Mediaeval Ragusa (Dubrovnik)", *Journal of Economic History*, Vol. 41, No. 4, pp. 795–811.
- Stuard, S.M. (1992) *A State of Deference: Ragusa/Dubrovnik in the Mediaeval Centuries*. Philadelphia: University of Pennsylvania Press.
- Stuard, S.M. (1996) – See Ch. 3 p. 2.
- Stuard, S.M. (1997) – See Ch. 4 p. 9.
- Stuard, S.M. (1998) – See Ch. 4 n. 22.
- Stuard, S.M. (2010) *Considering Medieval Women and Gender*. Aldershot: Ashgate Variorum.
- Stuard, S.M. (2013) "Shopping as Consuming Arts", Powerpoint for paper presented to American Mediaeval Society Congress, April 2013 – as provided by author.
- Stulli, B. (1997) *Arhivistika I Arhivska Sluzba. Studije I Prilozi*. Zagreb: Hrvatski Drzavni Arhiv.
- Šundrica, Z. (1999) "Obavještajna služba Dubrovačke Republike u 18. Stoljeću" *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*. Sv. 37, pp. 157–2014.
- Šundrica, Z. (2001) "The Intelligence Activities of the Dubrovnik Republic in the Austro-Turkish War, 1737–1739", *Dubrovnik Annals*, Vol. 5, pp. 47–79.
- Sunjic, M. (1967) *Dalmacija u XV. Stoljecu*. Sarajevo: Svjetlost.
- Tadić, J. (1932) Španija i Dubrovnik u XVI veku, Beograd. – See ch. 14 n. 26.
- Tadic, J. (1948) *Dubrovacki Portreti*. Beograd: Srpska Knjizevan Zadruga, Kolo VLIV, Knjiga 305.
- Tadic, J. (1961) "LES ARCHIVES ECONOMIQUES DE RAGUSE", *Annales: Economies, Societes, Civilisations*, Vol. 16, Issue 6, pp. 1168–1175.
- Tadic, J. (1968) "Privreda Dubrovnika I Srpske Zemlje u prvoj Polovini XV veka." *Zbornik Filozofskog Fakulteta U Beogradu*, Vol. 10, No. 1, pp. 519–539 [in Cyrillic].

- Teja, A. (1942) *Aspetti della vita economica di Zara dal 1289 al 1409. Parte II: La schiavitù domestica e il traffico degli schiavi, Parte III: L'esercizio delle arti e mestieri, Zara.*
- Tenenti, A. (1977) "VALEURS ASSURÉES ET VALEURS RÉELLES À RAGUSE VERS LA FIN DU SEIZIÈME SIÈCLE. [Insured values and actual values at Ragusa toward the end of the 16th century]", *Revue Historique*, Vol. 257, Issue 2, pp. 299–322.
- The Economist*, "The Narrative of an Empty Space" Dec. 22, 2012, pp. 53–55. – See Ch. 1 n. 13.
- "The Third Man" (1949) Directed by Carol reed. London: London Filed Productions. – See Ch. 1 n. 9.
- Tucci, U. (ed.) (1990) Translation and Introduction to Cotrugli, Benedetto / (Benedikt Kotruljevic) (1458), *Il Libro Dell' Arte Di Mercatura*. – Edited with introduction by Ugo Tucci. Venice: Arsenale Editrici.
- UNESCO (2011) "Old City of Dubrovnik-UNESCO World Heritage Site" as accessed: <http://whc.unesco.org/en/list/95>, 5/16/2012.
- Vekarić, N. (1998) "The Population of the Dubrovnik Republic in the Fifteenth, Sixteenth, and Seventeenth Centuries", *Dubrovnik Annals*, Vol. 2, pp. 7–28.
- Vekarić, N. (2006) "The Lastovo Rebels of 1602", *Dubrovnik Annals*, Vol. 10, pp. 59–86.
- Vekarić, N. (2011) *Vlastela Grada Dubrovnika (The Nobility of Dubrovnik)*, Vol. 1. Zagreb-Dubrovnik: Zavod za Povijesne Znanosti, HAZU (with English summary).
- Vekarić, N. (2012) "The Proportion of the Ragusan Nobility at the Closing of the Major Council in 1332", *Dubrovnik Annals*, Vol. 16, pp. 7–22.
- Vekarić, S. (1954) "Dubrovačka trgovačka flota, 1000 godine", *Anali Historijskog Instituta Dubrovnik*, Vol. 3, pp. 427–432.
- Vekarić, S. (1963) "Sulla Costruzione di navi per Ragusa nel XIV secolo", *Pomorski Zbornik I, Zadar*, No. 1, pp. 465–476.
- Vekarić, S. (1966–1967) "Vrste I tipovi dubrovačkih brodova XIV stoljeca", *Dubrovnik Anali*, Vol. 11, pp. 19–42.
- Vekarić, S. and N. Vekarić (1987) "Tri Stoljeca Peljeskog Brodovarstva" *Peljeski Zbornik*, Vol. 4, Zagreb: Društvo Peljesana u Zagrebu I Dubrovniku.
- Vekarić, S. (2005) – See ch. 12 n. 1.
- Vekarić, S. (2008) – See Data Appendix Table 1.
- Vinaver, V. (1956) "Dubrovačka nova ekonomska politika pocetkom XVII. Veka", *Anali Historijskog instituta JAZU*, Sv. 4–5, Dubrovnik.
- Voje, I. (1960???) – See Ch. 1 p. 9.
- Voje, I. (1976) "Kreditna trgovina u Srednjovekovnom Dubrovniku. Djela XLIX", *Odeljenje Društvenih nauka*, Vol. 29, Sarajevo: Akademija Nauka I Umjetnosti BiH.
- Voje, I. (2003) *Poslovna uspjesnost trgovcev v srednjeveskom Dubrovniku*. Ljubljana: Znanstveni institut Filozofske fakultete.
- Vojnović, K. (1896a) *Carinski Sustav Dubrovačke republike*. Beograd: Rad Jugoslavenske akademije znanosti i umjetnosti. Razredi filologičko-historički i filozofičko-juridički. Knj. 46.
- Vojnović, K. (1896b) *Državni rizničari republike Dubrovačke*. [Primjetbe] / K. Vojnović. // Rad Jugoslavenske akademije znanosti i umjetnosti. Razredi filologičko-historički i filozofičko-juridički. Knj. 45.

- Vojnović, Kosta (1899–1900), "Bratovštine I korporacije Dubrovačke", *Monumenta Historica I Juristica*, Vol. 7, Zagreb, pp. I–XXXIII.
- Wikipedia as accessed –
http://en.wikipedia.org/wiki/History_of_the_Republic_of_Venice, 8/1/2011.
http://en.wikipedia.org/wiki/Late_Middle_Ages, 9/2/2011.
http://en.wikipedia.org/wiki/Maritime_Republics, 8/1/2011.
http://en.wikipedia.org/wiki/Ragusa_Sicily, 5/1/2012.
http://en.wikipedia.org/wiki/Republic_of_Ragusa, 7/24/2011.
- Williamson, O. (1985) *The Economic Institutions of Capitalism: Firms, markets, Relational Contracting*. New York: The Free Press.
- Williamson, O. (2000) – See Ch. 2 n. 1, 2, and p. 32.
- World Bank (various years), *World Governance Indicators*. Washington, D.C.: The World Bank [accessed at: www.wgi.org].
- World Bank (2010) *Connecting to Compete: 2010: Trade Logistics in the Global Economy* – See Ch. 2 p. 14.
- World Bank (2013) *Doing Business Report 2013*. Washington, DC: The World Bank (accessed at: www.doingbusiness.org).
- Yamey, B. (1949) "Scientific Bookkeeping and the Rise of Capitalism", *The Economic History Review*, New Series, Vol. 1, No. 2/3, pp. 99–113.
- Zile, I. (2007) "Mediaeval Sewerage of the City of Dubrovnik", *Staro Hrvatska Prosvjeta*, Vol. 3, No. 34, pp. 437–449.
- Zile, I. (2008) "Archaeological Findings within the Historic Nucleus of the City of Dubrovnik", *Dubrovnik Annals*, Vol. 1, No. 2, pp. 73–92.
- Zinnes, C., Y. Eilat and J. Sachs (2001) "The Gains from Privatization in Transition Economies: Is Change of Ownership Enough?", *IMF Staff Papers*, Vol. 48, Special Issue, pp. 146–170.
- Živković, P. (1985) "Pariteti Dubrovačkog novca u srednjem vijeku", *Anali Zavoda za povijesne znanosti istraživačkog centra JAZU*, Svezak XXII–XXIII, Dubrovnik.
- Živković, P. (2006/2007) "Gospodareske I Kulturne vaze Olova I Dubrovnika U Srednjem Vijeku", *Povijesni Zbornik. Godisnjak za kulturu I povijesno naslijeđe e Osijek*, god. I, No.1/2. pp. 29–40.
- Živojinović, D. (1977) "Ragusa, Great Britain and the American Revolution, 1763–1783", in Filipović, R. and M. Partridge, (eds) (1977), *Dubrovnik's Relations with England: A Symposium*. Studies in International Cultural Relations, Vol. 1. Zagreb: University of Zagreb. pp.123–132.
- Zlatar, Z. (1976) "Dubrovnik's Investments in Its Balkan Colonies, 1594–1623: A Quantitative Analysis", *Balkanica*, Vol. 7, pp. 103–118.
- Zlatar, Z. (1992) *Between the Double Eagle and the Crescent: The Republic of Dubrovnik and the Origins of the Eastern Question*. Boulder: East European Monograph Series.
- Zlatar, Z. (2002) "Huius...est omnis reipublicae potestas: Dubrovnik's Patrician Houses and Their Participation in Power (1440–1640)", *Dubrovnik Annals*, Vol. 6, pp. 45–65.
- Zlatar, Z. (2007). "Udio Vlastele u Dubrovačkoj Kreditnoj Trgovini (1520–1623): Kvantitativna Analiza Vjerovnika", *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, Sv. 45, pp. 131–157.

Index

- agora democracy, 104, 222n2
American School of Institutionalism, 16
argosy, 3, 47, 215n1
aristocratic republicanism, 7, 102
Asenov, Bulgarian King, 58
Austrian period, history of Ragusa, 55
Avars, 6, 49, 57
- Balcerowicz, Leszek, 32, 217n19
Balkan hinterland, 6, 50–52, 65, 82,
89, 97, 107–8, 192, 194
Balkans, Slavicization of, 57, 60
banking, Ragusa, 130–2
bankruptcy procedures, 137–9
Bara Bettera Memoire, 113, 160, 161,
169, 173
big-bang debate, 33–4, 223n12
bills of exchange, silver period, 89
Black Death, 58, 65, 145
borrowing activity, 114–15, 130
Boserup, Ester, 68
Boskovich, Rudiger, 144
Braudel, Fernand, 4, 40, 47, 221n6
Budislavic, Leonard, 78
Budislavic, Tomo, 78
business activity, *see* EDB (ease of
doing business)
Byzantine period, history of Ragusa,
50–1
Byzantium, 7, 10, 51, 108, 226n5
- Cape of Good Hope, 13, 26, 54, 69,
71, 92–8, 186, 199, 205, 218n10
capitalism, 36, 40
Carlos V (King, Spain), 76
Charlemagne, 50, 65
Christian, 7, 54, 58, 77, 86, 107, 162,
176, 179, 228n8
circumnavigation, Cape of Good
Hope, 92–8
city growth rates, 27
cliometrics, 4, 8, 45, 95, 132, 215n5,
219n11
- commerce, *see* EDB (ease of doing
business)
Congress of Vienna (1815), 56, 98
Constantinople, 50, 54, 58, 66, 69,
142, 175, 179, 228n7
Cotrugli, Benedetto, 14, 143,
224n7–9
credit activity, 88–9
Croatia, 8, 59, 189, 191–2, 201, 204
business contract enforcement,
136–8, 201
GDP, 84, 211
Hungarian/Croatian kingdom, 53,
187
independence, 56, 73
mercenaries, 50, 57, 65
population, 208
currency policy, 122–30
customs revenues, 119–20, 174
- da Gama, Vasco, 71, 92–8, 199, 221
Dalmatian cities, Ragusa comparison,
192–5
debt problems, 36, 79, 89–90,
112–16, 122, 128–9, 132, 139–40,
157, 188, 200–2
debtor's prison, 139, 157, 201
de Diversis, Filip, 107, 113, 133, 138,
142, 159, 163, 222n10, 224n1,
226n11
democratic republicanism, 103
deposits, 116–17
dinaro grosso, 122–4, 127
diplomacy, 173–8, 178–80
Doge, 7, 52, 76, 102, 185, 188, 193
Doing Business Reports (World Bank),
11, 22–3, 135–7, 144, 201
Dubrovnik, 218n2
adoption of name, 6, 46, 55, 59
see also Ragusa/Dubrovnik
Dubrovnik Archives, 8, 81,
139–40, 142, 149, 169,
173, 204–5, 207

- EBRD (European Bank for Reconstruction and Development), 21, 33, 34, 217*n*20
- economic evolution
 hypotheses, 81
 Ragusa, 4, 8–11
 silver period, 82–3
- economic history
 applications of NIE (New Institutional Economics), 25–9
 what happened, 4, 9
 why it happened, 5
- economic periods
 foundational period (~800–1250), 62, 63, 64, 65–6
 gradual decline (1575–1750), 62, 63, 64, 71–2
 maritime golden years (~1400–1600), 62, 63, 64, 68–70
 new classification of, 61–3
 notable Ragusans, 74–9
 post-republic period (1806–present), 62, 63, 64, 73–4
 quantitative comparison of, 63–5
 revival (1750–1806), 62, 63, 64, 72
 silver period (1250–1400), 62, 63, 64, 66–8
- economic prosperity
 hypotheses on Ragusan, 79–80
 institutions as explanation of, 200–4
- EDB (ease of doing business), 13, 23–4, 31, 40, 102, 135, 139–42, 153, 155
 bankruptcy procedures, 137–9
 business activity, 139–47
 business contract enforcement, 136–9
 commerce and economics, 142–5
 state activities in economy, 145–7
- education, social support, 163–4
 El-Idrissi, 43, 47, 66
 England, 25, 139, 142
 domestic production, 86
 economic growth, 25, 28–9, 92–3, 101, 106, 125
 fleet, 79, 199
 ship capacity, 87
 shipping data, 212
 ships, 146
 ship tonnage, 87
 trade, 55, 62, 177
- Enterprise Surveys, World Bank, 24
 Epidaurus, 6, 187, 222*n*1
 elites, 46
 flight from, 48–9
 invasion of, 57
 nobility, 46, 58–9, 102
 refugees from, 109, 179
- extractive institutions, 19
- Ferdinand I (King, Habsburg), 76
 Ferguson, Niall, 5, 35, 218*n*24–5
 fiscal responsibility, good institutions, 112–21
 forced loans, 115
 foreign policy, 169, 170–3, 178–80
 foundational period (~800–1250), economy, 62, 63, 64, 65–6
 France, trade, 55, 92, 106, 141–2, 177
 Freedom House, 21
 French occupation, history of Ragusa, 55–6, 97–8
- GDP (gross domestic product), 4, 8, 12, 92, 117, 199, 219*n*11
 comparison of GDP and proxies, 94–95
 direct output estimates, 211
 England and Western Europe, 86
 Ragusan aggregate, 82–4, 227*n*8
- global growth, applications of NIE (New Institutional Economics), 29–32
- Global Recession, 202
 Glorious Revolution of 1688, 25
 glory days
 Ragusa's, 3, 4, 54, 73, 92
 Venice, 185
- gold ducat, 47, 67, 123–4, 130, 137, 156, 176

- golden years
 economy, 62, 63, 64, 68–70
 fleet size, 83, 84
 loan activity, 88–9
 maritime trade, 9, 12, 53, 61–5, 68–70, 82–91, 117, 146, 164, 198, 215*n*4
 maritime trade intermediation, 85–7
 per capita GDP, 83, 84
 prosperity of, 83–91
 trade rivalry with Venice, 84–5
 wealth indicators, 90–1
- gradual decline (~1575–1750), economy, 62, 63, 64, 71–2
- Great Recession, 15, 35–6, 183
- Guerrero, Ungara, 75
- health care, social support, 164–5
- Heritage Foundation, 21
- Hilbert, David, 181, 206, 229*n*2
- history of Ragusa, 45–6
 Byzantine period (~614–1204), 50–1
 First Austrian period (1684–1806), 55
 French occupation and end of Ragusan independence (1806–present), 55–6
 Hungarian/Croatian Kingdom period (1358–1526), 53
 Ottoman period (1526–1684), 53–4
 pre-history and Roman period before 614 AD, 48–9
 role of growing Slavic population, 56–60
 timeline of political-historical evolution, 46–8
 Venetian period (1204–1358), 51–3
- Hungarian/Croatian Kingdom period, 53
- Industrial Revolution, 25, 28, 68
- Infrastructure, social support, 162–3
- innate conservatism, Ragusan policy, 106, 109, 118–19
- Institutional Indicators, 23–4
- institutions
 defining and measuring, 18–23
 explaining economic success, 200–4
 fiscal and financial stability, 110
 fiscal probity, 112–21
 future research topics, 204–6
 how they come about, 38–9
 impact issues, 37–8
 importance of, 38
 legal system, 110
 market-enhancing, 10, 13, 16–17, 40, 112
 meriting detailed study, 109–11
 metric for measuring, 17–18, 36–7
 North theory on role of, 16–18
 open legal systems with rule-of-law, 148–57
 optimality, 197–206
 procedures for undertaking business, 110
 social fairness, 111
- institutions matter, 15–16, 20–1, 29, 31, 33, 37–9, 96–7, 135
- institutions rule, 30, 33, 37
- instrumental variable (IV) approach, 29, 31
- interest rates, 88, 114, 116–17, 126–9, 135, 224*n*8
- International Finance Corporation (IFC), 23
- Kingdom of Ryukyu, 10
- Koloman, King of Hungary, 175
- Kotruljevic, Benedikt, 14, 47, 113, 116, 136, 142–4, 224*n*10, 224*n*7, 225*n*11
- Lane, Frederic, 4
- law and order (L&O), 31–2, 37
- laws merchant, 25, 28
- legal origins, literature, 27–8
- legal system
 Ragusa, 149–50
 rule-of-law, 148–9, 150–3
see also ROL (rule-of-law)

- Levant, 6, 14, 101, 130
 economic periods, 62, 68–9,
 71, 72
 trade with, 53–4, 62, 66, 85, 91–3,
 175–6, 186, 189
 “*Libertas*” (Freedom) motto, 7, 47,
 56, 175, 177, 180, 218*n*6,
 228*n*11
 loan activity, 88–9
 loan availability, 131–2
 Loans-for-Shares scheme, 34, 39
 Lonza, Nella, 8, 225*n*6
 Lukarevic, Franjo, 78
- Machiavelli, 9, 107
 marine golden years (~1400–1600),
 economy, 62, 63, 64, 68–70
 market-enhancing institutions, 10,
 13, 16–17, 40, 112
 Mediaeval Ragusa, 35, 40, 111, 116,
 148, 158
 Mediterranean Tiger, 10
 methodology, 12–13
 military forces
 budget and expenditures, 169–70
 limited, 178–80
 naval and, 170–3, 178–80
 Mint (Zecca), 114–15, 120, 122,
 128–30, 185, 223*n*3
 monetary policy, 122–30
 motto, “*Libertas*” (freedom), 7, 47,
 56, 175, 177, 180, 218*n*6,
 228*n*11
 Muslims, 54, 107
- Napoleon, 7, 47, 55–6, 73, 97, 177
 Netherlands, 55
 economics, 92–3, 101, 106, 199
 ship capacity, 87
 shipping data, 212
 ship tonnage, 86–7
 trade, 62
 NIE (New Institutional Economics),
 5, 13, 15–16, 184, 185, 197, 200,
 204, 216*n*4
 applications to Great Recession,
 35–6
 applications to post-Communist
 transition, 32–5
 defining and measuring
 institutions, 18–23
 empirical applications to economic
 history, 25–9
 empirical applications to global
 growth, 29–32
 institutions matter, 96
 lessons for study of Ragusa,
 39–41
 North Theory on role of
 institutions, 16–18
- nobility
 benevolence of Ragusan, 166–8
 Ragusan, 29, 46–7, 52, 58–9, 76, 85,
 96, 102
 state governance, 105
 nobless oblige, 75, 105, 166, 168
 North, Douglas, 5, 16
 notary, 200–1, 203
 business activity, 137, 139–43
 commercial life, 189
 rule-of-law, 149–51, 155
- Ogilvie, Sheilagh, 28–9, 34, 36, 39,
 138, 158, 216*n*10
 oligarchs, 27, 32–6, 38, 104, 110
 Ottoman-Muslim Empire, 5
 Ottoman power, 7, 193
 Ottomans, 7, 9, 71, 107–9, 167,
 227*n*3
 period, 53–4
 refugees fleeing advance of,
 58, 82
 trading, 86–7, 95, 141, 176, 228*n*8
 treaty with, 53
 Ottoman Sultans, 5
 output proxies, Ragusa, 212–13,
 214
- Pacioli, Luca, 143, 224*n*10,
 225*n*11
 patriotic hypothesis, Ragusa, 79, 81,
 87, 91, 199
 Paul III, Pope, 176
 “*Pearl of the Adriatic*”, 4, 47, 68
 Pepys, Samuel, 3, 47, 218*n*5
 plutocracy, 36
 policing institution, 19
 political history, Ragusa, 6–7

- population
 notary entries, 151
 Ragusa, 82–3, 94, 208–9
 Slavic, 56–60
- Portugal, 5, 62, 87, 92, 95, 146, 199
 Cape of Good Hope, 13, 96
 ship capacity, 87
 spices by ship, 71, 92
- post-Communist transition, NIE
 (New Institutional Economics),
 32–5
- post-republic period (1806–present),
 economy, 62, 63, 64, 73–4
- poverty alleviation, social support,
 165–6
- Pracatovic, Miho, 76–7, 105
- public housing, social support, 163
- Ragusa
 benevolence of nobles, 166–8
 budget structure, 112, 113
 comparison to Dalmatian cities,
 192–5
 comparison to Venice, 184–6
 consensus on social stability,
 158–62
 court effectiveness, 153–6
 credit activity, 88–9
 economic evolution, 4, 8–11, 12
 economic success, 4–5
 explaining wise policies, 106–9
 future research topics, 204–6
 governance, 101–5
 institutional paradigm for
 studying, 36–41
 lessons from NIE, 39–41
 motivation, 3–6
 nobility, 29, 46–7, 52, 58–9, 76, 85,
 96, 102
 number of ships, 83, 84
 open legal system, 150–3
 output proxies, 212–13, 214
 political history, 6–7
 population, 83, 94, 208–9
 quantitative tests of hypotheses
 about, 198–200
 rivalry with Venice, 93
 rule-of-law, 149–50, 153–6
 ship capacity, 84, 85, 87, 94
 shipping data, 212–13
 state governance, 105
 trade rivalry with Venice, 84–5
 uniqueness of, 183–4, 195–6
 see also wise policies of Ragusa
- Ragusa/Dubrovnik, 3, 47, 197
 diplomacy as defence, 173–8
 economic history, 198, 203, 206
 economic history of, 73–4, 97
 foreign policy, 169–70
 future research topics, 204–6
 naval and military forces, 170–3,
 178–80
 pre-history of, 48
 principal buildings in, 63
 Slavic city, 58, 85
- Ragusan *dinaro grosso*, 122–4, 127
- Ragusan nobility, 29, 46–7, 52, 58–9,
 76, 85, 96, 102
- relative decline
 Ragusa after da Gama
 circumnavigation, 92–98
 see also gradual decline
- revenues, 119–20, 174
- revival interlude (1750–1806),
 economy, 62, 63, 64, 72
- ROL (rule-of-law), 13, 31–2, 34, 37,
 39, 102, 144, 148–50
 effectiveness of courts and, 153–6
 fair and effective legal system, 110
 open legal system, 148–56
 summary on, 156–7
- rule-of-law, *see* ROL (rule-of-law)
- Saint Blaise (Sveti Vlaho), 120, 171,
 220*n*13
- Sehdev, Paul, 164
- Serrata (1277), 10, 96, 97, 102–3
- Serrata (1297), 27, 184, 225*n*16
- settler mortality, 29, 31
- “Seven Flags” (Sette Bandieri), 48,
 177
- Shakespeare, William, 1, 3, 4, 47
- silver coin (*dinaro grosso*), 122–4,
 127
- silver period (1250–1400)
 bills of exchange, 89
 economic evolution, 82–3
 economy, 62, 63, 64, 66–8

- Skocibuha, Stjepovic, 78, 105, 221*n*23
- Slavic population, Ragusan history, 56–60
- Smith, Adam, 36
- social fairness, 202
 mechanisms of social support, 162–6
 political and social stability, 111
 Ragusa's social stability, 158–62
 social programmes, 161, 168
- social programmes, social support, 162–6, 168
- social support, mechanisms of, 162–6
- Sorgo, Marina, 75
- Sorkocevic, Luka, 78
- Spain, 5, 55, 62, 76, 86–7, 92–3, 106, 177
- special politics, 32, 217*n*19
- spice trade, 71, 85, 92, 95, 199
- Stipetić, Vladimir, 9, 113, 117, 149, 215*n*5, 219*n*11
- Stuard, Susan, 152, 198, 226*n*5
- Tadic, Jorjo, 77, 105, 125, 142, 204, 205
- terminology, 12–13
- Tiger Economy, Ragusa/Dubrovnik, 10, 146, 198
- Treaty of Zadar (1358), 53
- Trvtko, King (Bosnian), 171, 176, 227–8*n*6
- urban infrastructure, social support, 162–3
- Uros, Stefan (Serbian King), 67, 171, 176
- Vardić, Pešorda, 51, 163, 225*n*14
- Vekaric, Nenad, 198
- Venetian period, history of Ragusa, 51–3
- Venice
 comparison of Ragusa to, 184–6
 decline of, 95–7
 economic decline, 26, 225*n*16
 government structure, 102
 number of ships, 83, 84
 population estimates, 210
 Ragusan trade rivalry with, 84–5
 ship capacity, 84, 85, 87
 shipping data, 212
 state budget, 114
- Versailles Treaty, 56
- Vlaho, Sveti (Saint Blaise), 120, 171, 220*n*13
- Volcassio family, 74–5
- von Grunemberg, Konrad, 172
- Vukasic, Pasko, 74–5, 76, 197
- Washington Consensus (WC), 13, 30, 41, 110, 112
- Weber's thesis, 27
- Western Europe, 25, 40, 92, 101, 125, 141–2
 bankruptcy laws, 138
 disputes, 226*n*1
 economics, 149, 177, 203, 204, 206
 GDP, 84, 86
 naval power growth, 54, 93, 95, 186, 199
 Ragusan trade to, 55
 slave trade to, 68
- Williamson, Oliver, 16
- wise policies of Ragusa, 106–9, 203–4
 innate conservatism, 106, 109
 nobles as merchants, 106, 109
 pressures of big powers, 106, 108–9
 very small states, 106, 108
- World Bank, 11, 21, 22–3, 135–7, 144, 201
 Governance Indicators, 101–2
 institutional indicators, 24
 institutional quality, 23–4
- World Economic Forum, 24
- Worldwide Governance Indicators (WGI), 23
- Zadar, 14, 49, 53, 107, 141, 150, 203
 comparison to Ragusa, 192–5
 Ragusan competitor, 186–92
- Zamanja, Marin, 75–6
- Zecca (Mint), 114–15, 120, 122, 128–30, 185, 223*n*3
- Zuzoric, Cvijeta, 78