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Black money, white money and the circulation of parallel currencies in Venetian Crete

ABSTRACT

The paper is based on preliminary research concerning the monetary policies adopted by the Venetian rulers of Crete in the Middle Ages and the implications of the system of black and white money that they used.

By the terms “black money” and “white money” we mean the issuance by minting authorities of at least two series or two types of currency: one with a high percentage of precious metal, called “white money”; and another with a very low percentage of precious metal, called “black money”, which was of very low value and widely used for low-value transactions.

Therefore, the paper attempts first to investigate some main points of the circulation of monetary instruments in Venetian Crete, or on and off the island; second, to form some main research questions related to the liquidity problems the Cretan economy faced at the time, particularly how the monetary flows affected the island economy or were affected by the general economic activity and wealth flows; and third, to raise points not to be missed in future research concerning the connection of class and general social structure to the monetary system of the era.

KEYWORDS: black money, white money, Venice, Crete, monetary, currencies

1. INTRODUCTION

This paper attempts to set the context and the main research questions of a larger research project concerning the monetary structures and policies of Medieval and Renaissance Venice. At this stage, the project has as a case study the island of Crete, which was a Venetian colony for more than four hundred years. The research aspires to analyse the monetary structures that existed in the island at the time and how those affected the economic life of the people who lived in or even passed through the island.

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The project focuses in particular on the effects that the parallel circulation of various types of currencies had on the economy, having as a starting point the major distinction between currencies of high value (white money) and low value (black money), which was common not only in Crete and in Venice but also throughout the entire European continent at the time.

The next section describes the features of the monetary system of the Venetian era. Section three presents the case of Venetian Crete as a colonial economy. The framework of the larger research project is explained in section four and the main research questions are discussed in section five. Section six explores the importance of this monetary system and case study today, and the implications for future research are described in the last section, seven, instead of conclusions.

2. BLACK, WHITE AND OTHER MONIES IN THE MEDIEVAL AND RENAISSANCE MEDITERRANEAN

A typical characteristic of medieval and renaissance monetary systems on the Mediterranean coasts and the European continent in general, is the multiplicity of monetary instruments in circulation. For example, in the same economy, we could see foreign and local currencies circulating together, even used at the very same time to calculate the value of a transaction or the main payments of a loan. The distinction between legal and non-legal tender meant that authorities could also accept foreign currencies and deny their own currencies as means of tax or fine payments. The above coincided with the co-existence of both minted and virtual currencies, i.e. accounts could be done in a different currency from the one the payment was made in, while currencies that were literally minted might be used as virtual units of account in a transaction (Antoniadi 1967, Bacharach 1994, Stahl 1985, 2000, 2007, 2016, Travaini 2006, Tucci 2001, Drakakis & Sidiropoulos 2004, Liata 1996: 13-82, 119-169, Mazarakis 2004, Mueller 1980, Papadaki 2000, Ploumidis 1972, 2006, Tsiknaris 2005, Spufford 2014).

This variety and multiplicity of monetary instruments coincided with a variety of fake, forged or illegally minted currencies. Apart from coins minted by legal mints beyond the volume of coins set by authorities, various mints that were under the control of local lords minted currencies following (copying) the matrices of the legal tender currencies. In some cases, currency was erupted among competitor trade cities attacking the trust shown in the currency of a competitor city. Forgery of currency and fake coins of all types were all over the place and even the assigned authorities proceeded with debasement of their own currency (Stahl 2000, Liata 1996: 171-198, Mueller 1980, Drakakis & Sidiropoulos 2004, Ploumidis 2006).

A major distinction in this very complex monetary situation is that between gold and silver themselves and between precious (gold and silver) and non-precious metals (copper and/or other mixed alloys). In other words, there was a plurimetallic or multimetallic monetary system with the two most precious metals, gold and silver, as coin bases, on the one side, and the lower-priced metals like copper, mixed alloys and metal alloys which contained a low quantity of silver, on the other side.

Within this context, the currencies were distinguished into two major categories: low-value currencies and high-value currencies. The low-value currencies could be virtual or physically minted and they could contain no silver or a low percentage of silver, which resulted in their

oxidation and dark colours – this is why they were generically termed “black money”. The high-value currencies could also be virtual or physically minted but they contained a high percentage of high quality silver or gold. The latter did not lose or were not perceived to lose their metallic brightness, which is why they were called white money (Stahl 1985, 2000, Drakakis & Sidiropoulos 2004, Ploumidis 2006, Hocquet 1979, Mazarakis 2004, Mueller 1980, Spufford 2014).

The practical aspect or feature of these two broad currency categories is that white money, as high-value money, was used in major transactions, such as trade (especially international trade) and wages of highly skilled labour. Black money, on the other hand, was used in small transactions and was the currency type preferred for most people’s everyday activities (Stahl 2000, 2007, Mazarakis 2004, Liata 1996, Mueller 1980, Spufford 2014).

3. THE CASE OF VENETIAN CRETE

I chose the case of Venetian Crete to study the phenomenon of black and white money in the Middle Ages and investigate the monetary system(s) that were used in the island at the time, due to various reasons:

One reason was the advice of an anonymous referee in 2011 to look for black money in the Middle Ages in order to understand how parallel currencies today are functioning or are expected to function. It seems that in some cases the parallel circulation of both low- and high-value state currencies in late Middle Ages had serious implications for the class structure of ascending capitalism (Gemmill & Mayhew 1995, Gullbek 2005, Mueller 1980).

Another reason is that I needed a case study within the territory of contemporary Greece. The third reason is that Crete, given its geographical, climatic and cultural position in the centre of the Eastern Mediterranean Sea, was an ideal case as it has always been a trade connection point for Europe, the Middle East and North Africa. Moreover, for Crete, due to its good climate conditions and resources, one could not easily attribute economic or financial problems to lack of resources and limitations of an environmental character (although I would not preclude those either).

Aside from the above, I wanted to study the Venetian monetary system not from the point of view of the metropolis but from the point of view of the colony, of the people who lived, produced, traded or even ruled the island while living with the locals. It seems that even the Venetian colonisers and the Venetian local administrators were not very happy with the policies of their own metropolis (Detorakis 1994: 153-175, Maltezou 1997, Norwich 1989: 230-242). Crete officially became a Venetian colony in 1204 during the Fourth Crusade and Venice acquired practical control of the island in 1211. The Venetians held the control of the island until 1645, when Chania was conquered by the Ottomans, and the control of Candia/Herakleion and its suburbs until 1669. In fact, the Venetian rule of Crete exactly coincides with the transitional period between the Middle Ages and the modern era, i.e. between the feudal system and capitalist economic structures (Detorakis 1994: 143-244, Norwich 1989: 542-560).

That Venetians as administrators were very good at keeping archives and documentation provides proof that Venetian economic history and Crete were linked for over 400 years.

4 ΠΕΠΡΑΓΜΕΝΑ ΙΒ' ΔΙΕΘΝΟΥΣ ΚΡΗΤΟΛΟΓΙΚΟΥ ΣΥΝΕΔΡΙΟΥ

Some of the documents are in Crete, but a major part of the Venetian archives lies in Venice, and this research project aspires to investigate the original documentation concerning monetary policies. In that sense, I am grateful for the resources the island provides to researchers like myself and I hope that this study will demonstrate the contemporary relevance of this unique material to contemporary research.

4. THE RESEARCH FRAMEWORK

Venice for several centuries had no “white money” as such and adopted the silver grosso in about 1194, i.e. about ten years before Venice became a Mediterranean Empire with colonies from the Italian mainland to Istanbul, Crete and Cyprus and various trade points all over the Mediterranean Sea. Whether the adoption of the silver grosso was directly related to the Fourth Crusade military expenditures is debated, however it seems that it facilitated the expansion of Venice (Travaini 2006, Stahl 2000). About 90 years (1284) after the adoption of the silver or first white currency of Venice, the Venetian authorities adopted the golden ducato, a coin of high quality gold metal which was never debased and was issued/minted until the end of Venice as a separate state.

Apart from the silver grosso and the golden ducato and their various issuance series, the Venetian monetary system also had other currencies, physically minted or virtually circulating. All were of lesser value and were regularly debased or abandoned as issued currencies by the Venetian authorities. Their instability of value and public trust contrasted with the stability of fineness and value of the precious-metal-based currencies, particularly the ducato (Papadopoli 1871, 1893, Stahl 1985, 2000, 2007, 2016, Drakakis & Sidiropoulos 2004, Mazarakis 2004, Mueller 1980, Spufford 2014).

Within this historical framework, I do not take the “veil theory” of money for granted. If money is not a veil of economic activity but one among many factors that interact with the activity and conditions that individuals and social groups face, then how would this complex monetary system work in reality?

I attempt to understand the monetary system in Venetian Crete through a historical materialist lens, using post/de-colonial theory, feminist, ecological and other critical approaches, with the aim of seeing the monetary instruments in their articulation among themselves but also with their coeval modes of production. Special focus is placed on the effects of this monetary system on the most disadvantaged social groups and on nature. Of major interest are phenomena or problems that seem to defy existing monetary theories, particularly mainstream ones, with the intention of setting additional frameworks for research on monetary economics in the future.

5. THE MAIN RESEARCH QUESTIONS

In order to systematise the information and phenomena that emerge throughout my study in Venetian monetary economics, I chose to distinguish the research questions into themes. The themes are preliminary, i.e. they have been chosen through descriptive exploration and are adopted for analytical purposes only.

THEME 1: TAXATION & PUBLIC FINANCES

Despite the issuance/minting of currencies of various levels of value and precious-metal base, the issuing authorities are not willing to accept all of them as means of payment for taxes and fines. The Venetian state prefers to be paid in white money, that is, in gold or silver coins of fine metal. That makes white money the legal tender of this monetary system, even if, in various cases, white money is a virtual accounting unit on the basis of which the physical low-value currencies are counted for tax purposes.

In fact, the ducato was never debased, whereas the grosso changed through the centuries to the point where it became debased and had its minting stopped or altered. Falsifications and forgeries were more common for the low-value currencies for various reasons, one of which was that the technologies adopted to protect the genuine high-value currencies were not adopted for low-value currencies (Stahl 2000, 2016, Mueller 1980).

Nevertheless, the public finances were not in a good shape, even if the Venetian traders were accumulating huge fortunes in the meantime. The public treasuries in both Venice and Crete lacked funds, which coincided with general shortages of monetary liquidity. This meant that the people did not have enough monetary instruments to perform the transactions they wanted to, and also could not pay their taxes. Debt to the public treasuries accumulated just like the public debt itself for Venice and its colonies (Thiriet 1985, Tucci 1981, 2001, Antoniadis 1967, Drakakis & Sidiropoulos 2004, Mazarakis 2004, Mueller 1980, Ploumidis 2006, Hocquet 1979, Spufford 2014).

If we have so many currencies, both virtual and physical, in the economy, how can we explain the lack of liquidity? Why would not that be enough to use at least the virtual currencies to calculate transactions? The first hypothesis would be that this complex monetary system with the multiplicity of monetary instruments must have had structural problems itself that need to be identified and further explored. The variety of currencies and the existence of virtual ones do not seem to solve the problem of monetary liquidity.

THEME 2: RELATIONSHIP BETWEEN THE CURRENCIES

It is very interesting to see that in Crete, when the Venetians take over the administration, there are already other currencies of which the prevailing one is the Eastern Roman Imperial (Byzantine) hyperpyron [υπέρπυρον].

The hyperpyron is a gold coin that, at the time the Venetians take effective control of Crete, seems not to circulate at all in the island but only in virtual form, i.e. as an accounting unit. The Venetians tolerated the hyperpyron, accepting that accounting, contracts and even taxes were calculated in hyperpyra, even when the ducato was introduced by the Venetian state. In some sources, I find that the ducato and the hyperpyron are interchangeable and that people did not distinguish between them in practical terms. However, this cannot possibly be happening, first because the hyperpyron existed in Crete before the ducato, second because the hyperpyron, especially after 1453, is a currency of an Empire that no longer exists, and third, because the hyperpyron persists in Cretan transactions until the mid-17th century, despite the introduction of ducati and the dissolution of the Eastern Roman Empire/Byzantium two centuries earlier

(Antoniadi 1967, Pallastri 2005, Papadopoli 1871, Stahl 1985, Kalitsounakis 1928, Xanthoudidis 1912, Tsiknakis 2005).

The question is whether the shortage of physical Venetian coins leads local people to continue making their transactions using a virtual currency; and whether and for what reasons the liquidity problems persisted despite the use of virtual currencies.

We also know that all the currencies circulating in the Eastern Mediterranean had varying and floating exchange rates. Even the gold ducato, which contained a fixed amount of pure gold and was never debased, had variances in value and redemption power throughout the centuries that it was used (Antoniadi 1967, Stahl 2000: 147-179, 212-216, Drakakis & Sidiropoulos 2004, Liata 1996: 139-166, Mueller 1980).

Moreover, not all transactions were usually done with all types of currency. Certain sectors of production or trade preferred to transact with certain types of currency (of both high and low value). The variety of currencies also represented a variety of production sectors, of positions in the production and distribution process and of transaction patterns (Pallastri 2005, Stahl 2007, Liata 1996, Maltezou 1985, Mueller 1980, Baroutsos 1999, Panagiotopoulou 1974, Chilosi & Volckart 2010, Spufford 2014).

There was a form of monetary segregation among sectors and among classes. The question is why this is happening and in what ways each type of currency becomes preferred or trapped in a certain sector or social groups. In other words, liquidity problems are related to "bottlenecks", i.e. the concentration of monetary instruments in the hands of certain social groups or the disappearance from circulation of certain types of currency.

THEME 3: MONEY & SOCIAL STRUGGLES

Under these conditions, there arises the question of social struggles related to monetary instruments and the monetary system. I have distinguished the social struggles into three major topics: class, gender and race/ethnicity.

The first question, therefore, is whether and how class relations influence monetary tools and their function within the economy. In other words, which class has access to which currency and to what extent? (Stahl 2007, 2000: 81-96, 196-225, Liata 1996: 13-82, 171-188, Maltezou 1985, 2000, Gasparis 2003, Baroutsos 1999, Papadaki 2000, Drakakis & Sidiropoulos 2004, Chilosi & Volckart 2010, Mueller 1980, Spufford 2014). The reasons and implications of such class monetary bias are the other major question that my research attempts to answer.

My questions concerning gender relations are similar: do women and, if so, which women have access to monetary instruments and what are those instruments? Are they related to the sectors in which women have the opportunity to produce and gain income? What can we know of women's relationship to the various currencies, given that women mostly work in sectors of the economy which are usually unpaid? Research on the role of women in Venetian Cretan society (Maltezou 1997, 2000, Pallastri 2005, McKee 2004, Tsirpanlis 2003, Panopoulou 2003, Manousakas 1961) can be combined to give some directions for research concerning the monetary implications for women in the economy.

Finally, given that the society of Venetian Crete consists of various social groups with different cultural, religious, ethnic and language affiliations, does race or ethnic origin affect the financial position of individuals and social groups? For example, we know that Venetian nobles were by law the only class entitled to engage in international-foreign trade. On the other hand, we also know that for special sections of foreign trade, such as trade with Egypt, traders of local Cretan origin (and Orthodox Christian and Jewish affiliation) established trading links with the Egyptian authorities and traders. We know that Jewish communities are regularly considered by Venetian authorities to be committing the crime of usury although I cannot find evidence in the sources for this accusation apart from the Venetian official references themselves, although there is evidence of activity in other trade sectors of the island (Pallastri 2005, Tucci 2001, Williamson 2002, 2010, Gryntakis 2000, Maltezou 2000, Apellaniz 2013, Mueller 1980).

THEME 4: MONEY & MODES OF PRODUCTION

The Venetians, in order to sustain their international trade, source raw materials in the Eastern Mediterranean for which they have to pay in gold coins. They also need to trade the materials and especially the processed products to Western countries which have no gold coins to pay for the imported goods.

While Venice introduces the ducato, it seems that they have to transfer it to the East, despite trying to devalue the goods they buy from there. The Venetian traders rely for the food security of Venice on imported foodstuffs from the East and mostly from the colonies. The feudal lords and Venetian nobles turn to agricultural investment once the trading economy of Venice starts to decline – or perhaps when the trading routes of the Mediterranean are no longer adequate for Venetians to be able to pay gold for raw materials from the East and receive low-value coins from the West. Therefore, Venice seems to apply the same colonial monetary policies applied to its the maritime colonies in Terraferma (Norwich 1989, Thiriet 1952, 1962, Bacharach 1994, Day 2002, Mueller 1980, Spufford 2014).

Luxury fabrics and clothes are mostly needed in the colonies and in the East, and they are highly priced, usually paid for in white money (Pallastri 2005, Thiriet 1962, Liata 1996: 119-170, Maltezou 1985, Baroutsos 1999, Mueller 1980). Raw materials are low-valued through low-value currencies and bought at a low price by Venice or by the newly established workshops and small factories in Western Europe with which Venice trades regularly. Supporting the trade of luxury goods seems to have been the policy that led to the collapse of salt production and increased its price for everyone (salt was also used for food preservation) in the Venetian territories (Hocquet 1979).

THEME 5: MONEY, NATURE & FOOD

One major problem is the food shortages experienced in Crete, particularly from the late 14th century onwards. At the same time, the island mostly produced wine for export, plus other products like sugar (Detorakis 1994: 198-201, Moody & Rackham 2004: 103-118, Ploumidis 1972, Tsiknakis 2005).

Crete was not a major producer of grain due to climate reasons, but it had adequate territories to cover the needs of the local population, especially plains that were on highlands where the temperatures were adequate for efficient grain production. Venice required that grain was produced in Crete and traded to the metropolis at prices set by the Venetian authorities to make sure that the metropolis did not have to face food shortages. The main feature of the system of grain price setting was that people who produced grain, whether they were powerful feudal lords or small producers, did not have much space for profit in this sector, and the grain sector, despite comprising markets, was heavily controlled, to the extent that you needed a special license to transfer grain even from one part of Crete to the other (Gasparis 1991, 2003, Papadia-Lala 2003, Moody & Rackham 2004: 103-112, Tsougarakis 1990, Stallsmith 2007).

Given that the taxation system exercised pressure on the producers to pay taxes in white money, people were forced to search for grossi and ducati, and perhaps foreign currencies of precious metals (Drakakis & Sidiropoulos 2004). Acquiring these currencies was not as easy if they were trading or producing for a sector that did not provide much of an opportunity to make a profit, such as the grain sector.

It was easier, therefore, to turn to non-regulated or less-regulated sectors, like the wine trade, to acquire better profits and with them the white money they needed. The Venetian authorities encouraged or even forced people to cultivate grain, but to no avail. Authors explain this denial by people's propensity to seek high profits or by the revolutionary, untamed character of Cretan communities (Stallsmith 2007, Moody & Rackham 2004: 103-118, 190-196). However, the crucial question is how the cultivators themselves endangered their survival following repeated food shortages and insisted on cultivating grapes for wine export.

My hypothesis is that they were forced to make this choice. The liquidity shortages and the tax system imposed on the island made everyone, particularly those involved in agriculture, seek white money, which was only available in export sectors rather than local production or regulated sectors/state oligopolies like the grain trade.

To this contributed the harsh policy of Venice prohibiting the cultivation of the Cretan highland plains so that the local communities lost their food security and, with it, their opportunity for revolt and political autonomy. After some centuries, when grain cultivation was absolutely necessary, Venice waived the prohibition but this did not help the food security situation much (Detorakis 1994: 198-201, Gasparis 1994: 13-33, 50-55, 2003, Moody & Rackham 2004: 131-132).

It is obvious that the combination of all these policies was self-defeating. The worst hit was the policy to support and expand grain production: even when the wine trade ceased to be profitable for Cretan producers and Venetian traders, they turned to the production and trade of olive oil for soap production, rather than grain. When the Ottomans took over the island, the trend continued as before – it is no coincidence that the monetary system of the Ottoman Empire was similar to that of Venice (Detorakis 1994: 192-193, 258-268; Stallsmith 2007).

Another policy instrument that the Venetian authorities used to press for grain production was to use the debts of the producers (mostly feudal lords who, in their turn, transferred their

burdens to their serfs) in terms of taxation to force them to produce grain at regulated prices (Tsougarakis 1990). Taxation debts thus educated the producers that in order to avoid debt to the Venetian authorities, people had to acquire the high-value currencies required.

THEME 6: CREDIT & DEBT

One aspect is the variety of credit instruments, used to facilitate trade. They were adapted not only to the monetary instruments available and tax regulations, but also to prohibitions concerning the types of contract and the limits imposed by the Venetians under the influence of the Catholic Church (or perhaps under the liquidity shortages) on usurious practices. However, nothing seemed effective enough to stop predatory practices by lenders. It seems that the state itself was creating the debts by instituting a monetary system that did not have enough of the white money required to have taxes paid in this currency rather than low-value coins (Gofas 1991, 1993, Kalitsounakis 1928). Many predatory loans with very high interest rates were hidden under feudal or non-monetary loans, and in this manner, nobles and the clergy avoided the stigma and the legislation against usury (Gryntakis 2000, 2003, Xanthoudidis 1912).

The adoption of legislation to protect or relieve debtors did not do much. Many left the island and many others lost everything due to their debts. The Venetian state was a major debtor itself: it did not pay its debts to its lenders or it paid them in low-value currency. Little by little the public treasury was drained of liquidity and credit worthiness (Tucci 1981, 2001, Gofas 1991, Mueller 1980, Tsiknakis 2003, Hocquet 1979).

Moreover, it seems that debt was a feature or economic condition of all classes. For some reason(s), indebtedness became endemic and almost pandemic in Venetian Crete. As already mentioned, prohibition of usury and the reduction of interest rates by law did not help much (Thiriet 1985, Tucci 2001, Gryntakis 2000, Gasparis 2003, Ploumidis 1972, Drakakis & Sidiropoulos 2004).

The financial system seemed to create more debt and financial poverty than the economy could afford – despite the multiplicity of monetary instruments that were available in the economy.

6. WHY IS THIS CASE OF A MONETARY SYSTEM IMPORTANT TODAY?

Concerning the relevance of this research project, I chose this topic because my research on contemporary economies showed the need for historical research. First, the approach that money is a veil over the “real” material economy and that its structure or design does not affect the economy as a whole, seems not to hold, at least not in Venice and its colonies. Exchange tools seem to be as materially important as any other economic institution, no more than them, but no less either.

Second, as a researcher who does research on monetary phenomena within a general political economic context of sharp inequalities and huge poverty and environmental degradation, I also need to study monetary phenomena by taking an effective distance, in both time and personal involvement terms. Third, despite their differences, the Venetian Empire and the European Union also have many similarities. We cannot deny that the European Union could also be considered a trade empire. Its currency, the euro, is the white money of the empire, much sought, little

accessible, on a continent where poverty is rising among other continents ravaged by war and unequal trading conditions.

Fourth, the proposals publicised every so often supporting the idea of parallel currencies being issued by European state members of the Eurozone need to be carefully scrutinised. What historical precedents do we have of states issuing currencies of limited and unlimited circulation and/or high and low value at the same time? It is not wise to devise economic policies without taking into account historical precedents and experiences (Locke 2016).

Finally, the more one explores the Venetian case systematically, the more the actual historical paradigms and phenomena reveal inconsistencies in both the policies Venetians adopted at the time, and the theoretical approaches we have now at hand to understand monetary systems. For example, even if we accept the rough, popular transcription of Gresham's law that "bad money drives out good money", the question that arises looking at the case of black and white money in medieval Crete is: which is the bad money after all? For whom?

7. IMPLICATIONS FOR FUTURE RESEARCH

This paper is a summary of future research and everything written in it represents points, questions and queries for in-depth explorations of monetary history and theory. More research is needed, and it is needed by various disciplines and not only by economists. Interdisciplinary and transdisciplinary approaches are necessary to shed light on such a complicated example of monetary instruments. Economic history can inform us about today's economic questions and can assist us in refining our theories on and practical approaches to economic problems, especially when we are faced with situations where our contemporary experience is not enough to think of solutions in an effective way.

REFERENCES

- Antoniadi, Sofia A. (1967), "Economic situation of the cities of Crete during the period of war 1645-1669 – Transactions of Georgios Mormoris" [Οικονομική κατάσταση των πόλεων της Κρήτης κατά την εποχή του πολέμου 1645-1669 – Συναλλαγές του Γεωργίου Μορμόρη], *Thesaurismata*, vol. 4, 38-52.
- Apellaniz, Francisco (2013), "Venetian trading networks in the Medieval Mediterranean", *Journal of Interdisciplinary History*, vol. 44, no. 2 – autumn, 157-179.
- Bacharach, Jere L. (1994), "The ducat in fourteenth century Egypt", R. Curiel & R. Gyselen (eds.), *Itinéraires d'Orient – Hommages à Claude Cahen*, Bures-sur-Yvette, Groupe pour l'Etude de la Civilisation du Moyen Orient & L'Académie des Inscriptions et Belles-Lettres, 95-102.
- Baroutsos, Fotis (1999), "Sovvention per fabricar galioni – Venetian mercantilism and its reflections onto Cretan society of late 16th century" [Sovvention per fabricar galioni – Ο βενετικός μερκαντιλισμός και οι αντανακλάσεις του στην Κρητική κοινωνία του ύστερου 16ου αι.], *Thesaurismata*, vol. 29, 187-224.
- Chilosi, David & Volckart, Oliver (2010), "Good or bad money? Debasement, society and the State in late Middle Ages", *Working Paper* no 140/10, London, UK: Department of Economic History, London School of Economics.

- Day, John (2002), "A note on monetary mechanisms, East and West", A.E. Laiou (ed.), *The Economic History of Byzantium: From the seventh through the fifteenth century*, Washington DC: Dumbarton Oaks Research Library & Collection, 967-972.
- Detorakis, Theocharis E. (1994), *History of Crete*, transl. J.C. Davis, Herakleion.
- Drakakis, Manolis & Sidiropoulos, Kleanthis (2004), "Quatrinia, realia and zecchini di giusto peso": Monetary interventions and market practice in early 17th century Crete" [«Κατρίνια, ρεάλια και zecchini di giusto peso»: Νομισματικές παρεμβάσεις και αγοραίες πρακτικές στην Κρήτη των αρχών του 17ου αι.], *Proceedings of the 9th International Congress of Cretan Studies*, vol. B2, Herakleion, Society of Cretan Historical Studies, 345-365.
- Gasparis, Charalambos (1991), "Maritime transport among the ports of Crete (1326-1360)" [Οι θαλάσσιες μεταφορές μεταξύ των λιμανιών της Κρήτης], *Proceedings of the 6th International Congress of Cretan Studies*, vol. 2 – Medieval section – Byzantium, Chania, "Chrysostomos" Association of Literature, 67-101.
- Gasparis, Charalambos (1994), *Natural and agricultural landscape in medieval Crete – 13th-14th centuries* [Φυσικό και αγροτικό τοπίο στη μεσαιωνική Κρήτη 13ος-14ος αι.], Athens, Goulandri-Horn Foundation.
- Gasparis, Charalambos (2003), "The region and the city of Rethymnon (13th-15th centuries) – Historical picture" [Το διαμέρισμα και η πόλη του Ρεθύμνου (13ος-15ος αι.) – Ιστορικό σχέδιασμα], Ch. Maltezo & A. Papadaki (eds.), *The Rethymnon of Venice, Conference Proceedings*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice, 35-60.
- Gemmill, Elizabeth & Mayhew, Nicholas (1995), *Changing Values in Medieval Scotland – A study of prices, money and weights and measures*, Cambridge & New York, Cambridge University Press.
- Gofas, Dimitrios H. (1991), "Trade business of Greek Cretans around 1300" [Εμπορικές επιχειρήσεις Ελλήνων της Κρήτης γύρω στο 1300], *Proceedings of the 6th International Congress of Cretan Studies*, vol. 2 – Medieval section – Byzantium, Chania, "Chrysostomos" Association of Literature, 117-148.
- Gryntakis, Ioannis (2000), "Forms of private lending in Rethymnon under Venetian rule" [Μορφές ιδιωτικού δανεισμού στο βενετοκρατούμενο Ρέθυμνο], *Proceedings of the 8th International Congress of Cretan Studies (Herakleion, 9-14.9.1996) – vol. B1: Byzantium and Middle Ages*, Herakleion, Cretan Historical Studies Society, 163-180.
- Gryntakis, Ioannis (2003), "Economic relationships of the habitants of the Rethymnon country during the last decade of Venetian rule with reference to notarial documents" [Οικονομικές σχέσεις των κατοίκων του διαμερίσματος Ρεθύμνου την τελευταία δεκαετία της Βενετοκρατίας με βάση τα νοταριακά έγγραφα], Ch. Maltezo & A. Papadaki (eds.), *The Rethymnon of Venice, Conference Proceedings*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice, 109-128.
- Gullbekk, Svein (2005), "Natural and money economy in medieval Norway", *Scandinavian Journal of History*, vol. 30, no. 1, 3-19.
- Hocquet, Jean-Claude (1979), "Merchant capitalism and merchant class in Venice in the times of Renaissance" [Capitalisme marchand et classe marchande à Venise au temps de la Renaissance], *Annales, Economies, Sociétés, Civilisations*, vol. 34, no. 2, 279-304.
- Kalitsounakis, Ioannis E. (1928), "Unpublished Cretan contracts of the Venetian era" [Ανέκδοτα Κρητικά συμβόλαια εκ της Ενετοκρατίας], *Proceedings of the Academy of Athens* no 3 (31.5.1927), Athens, 483-519.
- Liata, Eftychia D. (1996), "Floria 14 equal grossia 40": *The circulation of currencies in the Greek space, 15th-19th centuries* [In Greek], Athens, Centre for Modern Greek Studies – National Research Institute.
- Locke, R.R. (2016), "History as a source of economic policy", *Real-World Economics Review*, 74, 49-63.
- Maltezo, Chryssa (1985), "Prices of goods and labour wages in Crete under Venetian rule (16th century)" [Τιμές αγαθών και αμοιβές εργασίας στην Βενετοκρατούμενη Κρήτη (16ος αι.)], *Byzantina Symmeikta*, vol. 6, 1-32.

- Maltezu, Chryssa (1997), "The historical and social framework – Historical storyline 1204-1669" [Το ιστορικό και κοινωνικό πλαίσιο], D. Holton (ed.), *Literature and society in Renaissance Crete*, transl. Deligiannaki, Herakleion, University of Crete Press, 21-32.
- Maltezu, Chryssa (2000), "Everyday life in Crete under Venetian rule: Situation and perspectives of research" [Η καθημερινή ζωή στη Βενετοκρατούμενη Κρήτη: Κατάσταση και προοπτική έρευνας]. *Proceedings of the 8th International Congress of Cretan Studies (Herakleion 9-14.9.1996)*, vol. B1: *Byzantium and Middle Ages*, Herakleion, Society of Cretan Historical Studies, 7-30.
- Maltezu, Chryssa & Papadaki, Aspasia (eds.) (2003), *The Rethymnon of Venice – Conference Proceedings 1-2.11.2002 [Της Βενετίας το Ρέθυμνο – Πρακτικά Συνεδρίου 2002]*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice.
- Manousakas, Manoussos (1961), "The will of Aggelos Akotantos (1436), unknown Cretan painter (tables 52-53)" [Η διαθήκη του Αγγελου Ακοντάτου (1436), αγνώστου Κρητικού ζωγράφου (πίνακες 52-53)], *Bulletin of Christian Archaeological Society*, vol. 2, 139-151 [Athens 1962].
- Mazarakis, Andreas (2004), "Crete – Monetary testimonies" [Κρήτη – Νομισματικές μαρτυρίες], *Proceedings of the 9th International Congress of Cretan Studies*, vol. B2, Herakleion, Society of Cretan Historical Studies, 331-344.
- McKee, Sally (2004), "Inherited status and slavery in late Medieval Italy and Venetian Crete", *Past & Present*, no. 182 – February, 31-54.
- Moody, Jennifer & Rackham, Oliver (2004), *The making of the Cretan landscape*. transl. to Greek K. Sbonias, scientific editor A. Haniotis, Herakleion, University of Crete Press & Foundation Donation of the Pancretan Association of America.
- Mueller, Reinhold C. (1980), "The Venetian monetary imperialism in the 14th century" [L'imperialismo monetario veneziano nel quattrocento], *Società e Storia*, vol. 8, 277-297, distributed in digital format by "Reti Medievali".
- Norwich, John J. (1989), *A History of Venice*, New York, Random House – Vintage Books.
- Pallastri, Serena (2005), "The market of fabrics in Crete in late 14th century" [Il mercato dei tessuti a Creta alla fine del XIV secolo], *Thesaurismata*, vol. 35, 105-128.
- Panagiotopoulou, Krista (1974), "Greek sailors and shipowners from the oldest financial books of the Greek Fraternity of Venice" [Έλληνες ναυτικοί και πλοιοκτήτες από τα παλαιότερα οικονομικά βιβλία της Ελληνικής Αδελφότητας Βενετίας], *Thesaurismata*, vol. 11, 284-353.
- Panopoulou, Aggeliki (2003), "From the life of Vartholomeos Syropoulos in Crete – New archival testimonies" [Από τη ζωή του Βαρθολομαίου Συρόπουλου στην Κρήτη – Νέες αρχαιακές μαρτυρίες], Ch. Maltezu & A. Papadaki (eds.), *The Rethymnon of Venice, Conference Proceedings*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice, 129-160.
- Papadaki, Aspasia (2000), "The pricing of the judiciary expenses of the Chancellery of Sitia during 17th century" [Η διατίμηση των δικαστικών εξόδων της καγκελαρίας της Σητείας κατά τον ΙΖ΄ αιώνα], *Thesaurismata*, vol. 30, 301-314.
- Papadia-Lala, Anastasia (2003), "Institutions of social provision in Rethymnon under Venetian rule" [Θεσμοί κοινωνικής μέριμνας στο Βενετοκρατούμενο Ρέθυμνο], Ch. Maltezu & A. Papadaki (eds.), *The Rethymnon of Venice, Conference Proceedings*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice, 61-78.
- Papadopoli-Aldobrandini, Nicolo (1871), *About some Venetian currencies for Crete [Di alcune monete Veneziane per Candia]*, Venice, Tipografia del Comercio di Marco Vinentini.
- Papadopoli-Aldobrandini, Nicolo (1893), *The currencies of Venice – Part 1: From the beginning to Cristoforo Moro 1156-1471 [Le monete di Venezia – Parte I: Dalle origini a Cristoforo Moro 1156-1471]*, Venice, Ferdinando Ongania Publisher.

- Ploumidis, Georgios S. (1972), "The report of the Chania Rector Leonardo Loredan (1554)" [Η έκθεση του Ρέκτορα Χανίων Λεονάρδου Λορεντάν], *Cretica Chronica [Cretan Chronicles]*, vol. 24, no. 2, 435-447.
- Ploumidis, Georgios (2006), "Monetary behaviour of Venice – Market and exchange rates (16th-18th centuries)" [Νομισματική συμπεριφορά της Βενετίας – Αγορά και ισοτιμίες (16ος-18ος αι.)], *Dodone – History & Archaeology*, vol. 35, 5-37.
- Spufford, Peter (2014), "The provision of stable moneys by Florence and Venice and North Italian financial innovations in the Renaissance period", P. Bernholz & R. Vaubel (eds.), *Explaining monetary and financial innovation, Financial and Monetary Policy Studies* vol. 39, Switzerland, Springer International Publishing, 227-251.
- Stahl, Alan M. (1985), *The Venetian tornesello – A medieval colonial coinage*, New York, The American Numismatic Society.
- Stahl, Alan M. (2000), *Zecca – The Mint of Venice in the Middle Ages*, Baltimore, London & New York, Johns Hopkins University Press & American Numismatic Society.
- Stahl, Alan M. (2007), "Coins for trade and for wages: The development of coinage systems in Medieval Venice", J. Lucasse (ed.), *Wages and currency: Global comparisons from antiquity to the twentieth century*, Bern, Peter Lang, 193-209.
- Stahl, Alan M. (2016), "Venetian coinage and money of account – An introduction for researchers", *News on the Rialto*, 35.
- Stallsmith, Allaire B. (2007), "One colony two mother cities: Cretan agriculture under Venetian and Ottoman rule", *Hesperia Supplements*, vol. 40 – *Between Venice and Istanbul: Colonial landscapes in Early Modern Greece*, 151-171.
- Thiriet, Freddy (1952), *History of Venice [Histoire de Venise]*, Paris, Presses Universitaires de France.
- Thiriet, Freddy (1961-1962), "Candia, great commercial point of the first half of 15th century" [Candia, grande place marchande de la première moitié du XVe siècle], *Cretica Chronica [Cretan Chronicles] – Proceedings of the 1st International Congress of Cretan Studies*, vol. 15-16, no 2, 338-352.
- Thiriet, Freddy (1985), "Rich and poor in Venetian Crete in the 14th and 15th centuries" [Riches et pauvres en Crète vénitienne aux XIVe et XVe siècles], *Proceedings of the 9th International Congress of Cretan Studies*, vol. B, Herakleion, Society of Cretan Historical Studies, 343-363.
- Travaini, Lucia (2006), "The Fourth Crusade and the minting in the Mediterranean area" [La Quarta Crociata e la monetazione nell' area Mediterranea], in G. Ortalli, G. Ravegnani & P. Schreiner (eds.), *Fourth Crusade: Venice – Byzantium – Latin Empire* [Proceedings presented at the Symposium of Study "Fourth Crusade", Venice, 4-8.5.2004], Venice, Venetian Institute of Sciences, Literature & Arts, 525-553.
- Tsiknakis, Kostas G. (2003), "An incident from the life of Francesco Barozzi" [Ένα επεισόδιο από τη ζωή του Francesco Barozzi], Ch. Maltezos & A. Papadaki (eds.), *The Rethymnon of Venice, Conference Proceedings*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice, 337-370.
- Tsiknakis, Kostas G. (2005), *Il miglior vino del mundo – The Cretan wine in the archival sources of Venetian rulers [Il miglior vino del mundo – Το κρητικό κρασί στις αρχειακές πηγές της Βενετοκρατίας]*, Gazi, Municipality of Gazi & Greek Institute of Byzantine & Post-Byzantine Studies of Venice.
- Tsirpanlis, Zacharias N. (2003), "Rethymnon during the last years of the Venetian rule – Pictures from common living of Greeks and Latins" [Το Ρέθυμνο στα τελευταία χρόνια της Βενετοκρατίας – Εικόνες από τη συμβίωση Ελλήνων και Λατίνων], Ch. Maltezos & A. Papadaki (eds.), *The Rethymnon of Venice, Conference Proceedings*, Venice, Greek Institute of Byzantine and post-Byzantine Studies of Venice, 79-104.
- Tsougarakis, Dimitris (1990), "The grain policy of Venice in Crete during 13th-14th centuries" [Η σιτική πολιτική της Βενετίας στην Κρήτη 13ος-14ος αι.], *Medieval and New Greek [Chronicles – Μεσαιωνικά και Νέα Ελληνικά]*, vol. 3, 333-392.

- Tucci, Ugo (1981), "The Banco della Piazza di Rialto, the first Venetian public bank" [Il Banco della Piazza di Rialto, première banque publique vénitienne], *Cahiers de la Méditerranée hors série, 5: L'argent et la circulation des capitaux dans les pays méditerranéens (XV-XX siècles)*, Proceedings of Study Days, Bendor, 3-5.5.1979, 155-169.
- Tucci, Ugo (2001), "The *ad pressam* loan in the economy of medieval Crete" [Il prestito *ad pressam* nell'economia di Creta Medievale], *Thesaurismata*, vol. 31, 29-42.
- Williamson, Dean W. (2002), "Transparency contract selection and the maritime trade of Venetian Crete 1303-1351", Working paper, September 2002, Antitrust Division – US Department of Justice.
- Williamson, Dean W. (2010), "The financial structure of Commercial Revolution: Financing long-distance trade in Venice 1190-1220 and Venetian Crete 1278-1400", Preliminary Draft, August 2010.
- Xanthoudides, Stefanos (1912), *Cretan contracts from the Venetian era, 1575-1643, first published now with comments and glossary* [Κρητικά συμβόλαια εκ της Ενετοκρατίας 1575-1643], Reprint from Creta Cristiana review, vol. A, no A-B, Herakleion, Styl. M. Alexiou Press.