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Jarrett, JA [orcid.org/0000-0002-0433-5233](https://orcid.org/0000-0002-0433-5233) (2014) *Bovo soldare: A Sacred Cow of Spanish Economic History Re-evaluated*. In: Naismith, RN, Allen, MR and Screen, EM, (eds.) *Early Medieval Monetary History: Studies in Memory of Mark Blackburn*. *Studies in Early Medieval Britain and Ireland*. Ashgate, Farnham, pp. 187-204. ISBN 9781409456681

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## **Bovo soldare:**

### **A sacred cow of Spanish economic history re-evaluated\***

#### **Introducing the bovo soldare**

The bovo soldare is an entity that appears, in both genders and a variety of spellings characteristic of the time, in transactional documents of northern Christian Spain from Galicia to Castile in the ninth and tenth centuries.<sup>1</sup> It almost invariably appears as a price: that is, it was given in exchange for goods of some other kind. In the records that survive, which ineluctably deal with durable property or they would hardly have been kept, these goods were almost always land. The term appears, simply enough, to mean an ox, or a cow, worth a solidus. The complication immediately arises, however, that this was an area and period where no coinage is known to have been struck, and where none had been struck since at latest the early eighth century; nor would it be again until, at earliest, the mid-eleventh.<sup>2</sup> Furthermore, that coinage had

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\* I must thank Drs Rory Naismith, Elina Screen and Martin Allen for the invitation to contribute to this volume, and Professor Wendy Davies and Dr Anna Balaguer for helpful discussion of the subject. I would also like to thank Dr Mark Blackburn for discussions we had on this topic, but of course I cannot, now, and so I hope that he would have been amused by my returning to this subject and pleased with the results. No-one but myself can be blamed for my omissions and mistakes, however, or indeed my conclusions.

<sup>1</sup> Tumbos del Monasterio de Sobrado de los Monjes, ed. P. Loscertales de G. de Valdeavellano (Madrid 1976), doc. no. 67: bove soldale; O Tombo de Celanova: estudio introductorio, edición e índices (ss. IX-XII), ed. J. Andrade (2 vols, Santiago de Compostela 1995), doc. [hereafter Celanova] no. 504: id est XVIII boves solidares; Celanova no. 176: vacca soldare.

<sup>2</sup> New discussion of such matters will soon be available in M. Crusafont, A. Balaguer and P. Grierson,

not, or probably had not, included coins of the denomination *solidus*.<sup>3</sup> Lastly, the usage, while persistent (attested from 796 to 1010 at least), is nonetheless extremely rare.<sup>4</sup> Certainty about the meaning and value of these cattle is therefore at best some deductive distance away from a simple reading of the documents. This chapter takes new stock of this supposed monetary referent and suggests some implications of the system it supposedly demonstrates.

Numerous attempts have been made to elicit how this ‘standard cow’ made up

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Medieval European Coinage, with a Catalogue of the Coins in the Fitzwilliam Museum, 6: the Iberian Peninsula (Cambridge forthcoming), Chapter 8, section (d); a standard account is O. Gil Farres, *Historia de la moneda española* (Madrid 1959), 189-91, but see now the more scientific terminological evaluation of J. Mínguez Martínez, ‘Moneda medieval en el reino de León: análisis de terminus monetarios en la documentación medieval de la Catedral de León (711-1252)’, *Ab Initio*, Número extraordinaria 1 (2011), 11-67, esp. 60-2, which does not, however, consider the *bove soldare*. For that question, W. Davies, ‘Sale, price and valuation in Galicia and Castile-Leon in the tenth century’, *Early Medieval Europe* 11 (2002), 149-74 is essential background, and though I do not cite it often in what follows its review of the evidence is the basic underpinning of my thinking nonetheless.

<sup>3</sup> P. Grierson and M. Blackburn, *Medieval European Coinage, with a Catalogue of the Coins in the Fitzwilliam Museum*, 1: the Earlier Middle Ages (Cambridge 1986), 49-54 for the Visigoths, esp. for 49 for the lack of Visigothic regal *solidi* and 54 for unlikely survival of Roman silver, cf. the views of others below, and 77-80 for the Sueves, relevant for Galicia as will be seen below; controversial new interpretations of both coinages are offered in I. Martín Viso, ‘Circuits of Power in a Fragmented Space: gold coinage in the Meseta del Duero (sixth-seventh centuries)’ in *Scale and Scale Change in the Early Middle Ages: exploring landscape, local society, and the world beyond*, ed. J. Escalona and A. Reynolds, *The Medieval Countryside* 6 (Turnhout 2011), 215-52. Cf. also Mínguez, ‘Moneda medieval’, 16-23.

<sup>4</sup> I adduce 49 relevant documents below from the period 796-1010; this is from a wider preservation of some 2,000 charters from the period.

for the lack of a monetary economy in these areas.<sup>5</sup> To the modern reader, especially if that reader has ever been near a cattle market, the idea that cows should have a standard value is itself somewhat unlikely.<sup>6</sup> The animals vary, in weight, in size, in

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<sup>5</sup> The historiography is discussed in detail below, but it effectively began with C. Sánchez-Albornoz, *Estampas de la vida en León hace mil años* (Madrid 1926), here citing from 4th edn. under new title *Una ciudad hispano-cristiana hace un milenio: estampas de la vida en León* (Buenos Aires 1947), where see 30-51, now in 11th edn. (Madrid 1985); other works frequently cited in what follows are Sánchez-Albornoz, 'La primitiva organización monetaria de León y Castilla', *Anuario de Historia del Derecho Español* 5 (1928), 301-41, repr. in his *Estudios sobre las instituciones medievales españolas* (México 1965), 441-82, and his *Viejos y nuevos estudios sobre las instituciones medievales españolas* (3 vols, Madrid 1976-83), 885-928; Sánchez-Albornoz, 'El precio de la vida en el reino astur-leonés hace mil años', *Logos* 6 (1944), 225-64, repr. in his *Estudios sobre instituciones*, 362-410, which edition cited hereafter, and his *Viejos y nuevos estudios*, 809-52; 'Moneda de cambio y moneda de cuenta en el reino asturleonés' in *Cuadernos de Historia de España* 31-2 (1960), 5-32, repr. in *Moneta e scambi nell'alto medioevo* (= *Settimane di Studio del Centro Italiano di Studi sull'Alto Medioevo* 8 (1961)), 171-202, in his *Estudios sobre instituciones*, 411-39, which edition cited hereafter, and his *Viejos y nuevos estudios*, 853-83; M. García Álvarez, 'Moneda y precios del ganado en la Galicia altomedieval', *Cuadernos de Estudios Gallegos* 24 (1969), 363-94. Almost all documentary references in what follows were initially gathered from: Sánchez-Albornoz, 'Precio de la vida', 397-410; M. del Pilar Laguzzi, 'El precio de la vida en Portugal durante los siglos X y XI', *Cuadernos de Historia de España* 5 (1946), 140-77 at 143-77; E. Sáez, 'Nuevos datos sobre el coste de la vida en Galicia durante el edad media', *Anuario de Historia del Derecho Español* 17 (1946), 865-88, at 871-88; or García Álvarez, 'Moneda y precios', 382-94. I have, however, checked their references against the most recent editions of the documents wherever possible, and cite their references only when more complete ones have not been possible to obtain.

<sup>6</sup> This is not to contend that cattle could not, all the same, be used as currency, as they plainly were so being in these documents, or even that things could be valued in cattle, as the Irish laws of a slightly earlier period make clear, though even these must have been heavily adapted to reality to work in practice; see C. Wickham, *Framing the Early Middle Ages: Europe and the Mediterranean 400-800*

milk yield, in fertility, in condition and health and in personality, though not all of these factors affect their valuation. Moreover, it is clear, as is shown below, that quite considerable variation was experienced in the prices paid for livestock in the period and area under study. Even if one wished to argue that the documents were the preserve of monastic elites comfortably isolated from the realities of the farmyard, an unlikely belief at the best of times but especially so for the documents of this place and time, and our cows therefore largely formulaic, the writers of those documents would have been as aware as we are of Biblical stories involving cows of different quality, if not more so.<sup>7</sup>

Factors such as these, and the experience of checking some of the classic citations used in support of the standard idea in newer editions of the documents,<sup>8</sup> meant that my initial reaction to the idea was also one of scepticism, and Mark Blackburn was indeed one of the first people to hear this reaction when I found it in a

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(Oxford 2005), 354-63.

<sup>7</sup> On the character of monasticism in the area, see A. Linage Conde, *Los orígenes del monacato benedictino en la Península ibérica* (3 vols, León 1973); A. Isla Frez, *La sociedad gallega en la alta edad media*, *Biblioteca de Historia* 12 (Madrid 1992), 105-28; W. Davies, *Acts of Giving: individual, community and church in tenth-century Christian Spain* (Oxford 2007), 36-64 and *passim*; on the relation of formulae and reality see A. Rio, 'Charters, law codes and formulae: the Franks between theory and practice' in *Frankland: the Franks and the world of the early Middle Ages. Essays in Honour of Dame Jinty Nelson*, ed. P. Fouracre and D. Ganz (Manchester 2008), 7-27 and C. West, 'Meaning and context: Moringus the lay scribe and charter formulation in late-Carolingian Burgundy' and J. Jarrett, 'Uncertain Origins: comparing the earliest documentary culture in Carolingian Catalonia', both in *Problems and Possibilities of Early Medieval Diplomatic: charter critique and history from charters*, ed. J. Jarrett and A. Scott McKinley (Turnhout forthcoming). The Bible story is of course Genesis 41:xvii-xxi.

<sup>8</sup> See nn. 39 and 46 below.

work I was copy-editing for the Department of Coins and Medals in the Fitzwilliam Museum in 2010.<sup>9</sup> When invited to contribute to a volume in Mark's memory, therefore, despite since having left numismatic employ, it seemed that the best thing that I could offer would be a proper study of the phenomenon in an effort to get the documents to yield more sense on the subject than they have previously been made to do.

As may be deduced from the above, more thorough investigation reveals what might have been expected, that the *bovo soldare* is not so easily to be shooed away. For a start, it has companions. Although restricted entirely to records from the Galician monastery of Celanova, there was also a 'modial sheep', *ovelia modiale*, presumably worth a *modius* of grain, although what grain is never specified in this expression and several sorts can be found in use for payments, any of which would presumably have had a rather different value from the wheat that is usually assumed.<sup>10</sup> Only from the same area, also, though its appearances are few, there are mentions of a *porco tremisale*, presumably a pig worth a *tremissis*.<sup>11</sup>

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<sup>9</sup> I will not identify the work in which I found it, though it may seem obvious what it was; since the relevant text no longer exists as I encountered it, a reference would be impossible in any case.

<sup>10</sup> Sheep, see Celanova nos 397, 403: both *ovelia modiale* (as part of much more complex prices. cf. Celanova no. 390, quoted below); Celanova no. 192: *oves IIas modiales*. For *modios* of different goods, see Colección diplomática del monasterio de Sahagún (siglos IX y X), ed. J. M. Mínguez Fernández, Fuentes y Estudios de Historia Leonesa 17 (León 1976), doc. [hereafter Sahagún] no. 125: *trigo et ordeo modios IIII de civaria, stante ipse civaria in solidos XVI*; Celanova no. 390: *triigo [sic] uno modio, centeno modios III, milio quartarios VI et vino sestarios IIII<sup>or</sup> et linteo tremisale ovelia modiale sub uno modios XIII*. A brief new analysis of the use of *modios* as units of exchange is given in Mínguez, 'Moneda medieval', 28-9.

<sup>11</sup> Celanova no. 409: *porcos duos, uno tremisale et alio de VI quartarios*.

A value hierarchy of cow = solidus, pig = tremissis and sheep = modius is therefore implied, which has an internal consistency that makes it somewhat harder to dismiss, even though these animals never appear together.<sup>12</sup> It might have been possible to argue that to relate the bovo soldare to the solidus is a mistranslation, and that the adjective is more correctly an early Romance form of the other meaning of the word, solid, reliable, dependable, since this sense would before long emerge in oaths of homage in the neighbouring Catalan counties; it might even be possible to stretch modiale to mediale and argue that the sheep was somehow a middling one, an average sheep, especially since middling cows, vacas medias, are also attested; but the pig worth a tremiss will not be removed by any such tricks of philology that I can think of, and in any case the feat gets less plausible with each species attempted.<sup>13</sup> It must be admitted, however, that after the year 1000, again, the pig appears to have suffered something of a demotion and become a porco modial [sic].<sup>14</sup> Despite this, though, it seems that we have to consider the likelihood that these standard animals existed in people's minds, and to try and extract from the records how they were envisaged and what use was made of them.

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<sup>12</sup> Cf. the Leonese hierarchy of solidus – arienzo – modius detected by Mínguez, 'Moneda medieval', 27-8.

<sup>13</sup> For solid homage, see P. Bonnassie, *La Catalogne du milieu du Xe à la fin du XIe siècle : croissance et mutation d'une société* (2 vols, Toulouse 1975-6), 2, 741-6; García Alvarez, 'Moneda y precios', 388, citing Archivo Distrital e Biblioteca Pública de Braga, *Liber Fidei Sanctae Bracarenis Ecclesiae*, no. 67: una vaca media cum sua filia. I have not been able to obtain *Liber Fidei Sanctae Bracarenis Ecclesiae*, ed. A. de Jesus da Costa (Braga 1965-), in which this document is presumably printed.

<sup>14</sup> Garcia Alvarez, 'Moneda y precios', 388, citing *Liber Fidei*, no. 76: I marrano modial, and no. 43: Iº porco modial.

## Bovine historiography

The historian who made this cow do the most work for his theories was unquestionably Claudio Sánchez-Albornoz, a name still uttered with wary reverence by his successors.<sup>15</sup> Don Claudio, whose interests were broad but which had at their core a determination to uncover the origins of the social and economic institutions of the earliest Christian Spanish kingdoms in the era of the Reconquista (as he saw it), had a consequent interest in the details of the economy and of everyday life for society at all levels which made prices highly informative for him, and his early focus on such matters is not surprising to the reader of his work.<sup>16</sup> He was also, however, a fervent Republican who was thus forced to leave Spain for Argentina in the nineteen-thirties, where he would eventually become the President of the Republic of Spain in Exile. There he also established himself as the head of a school, in the broadest sense, in the Universidad de Buenos Aires and founded what is still one of the foremost journals of Spanish history there, *Cuadernos de Historia de España*.<sup>17</sup> This allowed him to direct and support scholarship which was unpopular or discouraged in what had become Franco's Spain, but it also gave him as editor something like *carte blanche* to lambast and scorn his scholarly opponents in the most elevatedly sarcastic terms.<sup>18</sup> The exile also, and perhaps more importantly, separated him from the

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<sup>15</sup> Since shortly before Don Claudio's death there has existed a Fundación Sánchez Albornoz in Ávila, whose webpages provide a convenient biography of him at <<http://www.fsanchez-albornoz.com/index.php?datosbiograficos>>, consulted on 27/09/12.

<sup>16</sup> For his relevant works see n. 5 above.

<sup>17</sup> (Buenos Aires, 1944-).

<sup>18</sup> E. g. a diatribe directed at Évariste Lévi-Provençal under the title, 'La saña celosa d'un arabista', *Cuadernos de Historia de España* 27 (Buenos Aires), 3-42, of which 15-23 & 35-42 rev. under the less



documents that he had made his own in his early work, so that for most of his career his opinions had to be founded on a slowly increasing corpus of editions and such photographs as he had managed to obtain of the charters before his departure.<sup>19</sup> It was, therefore, possible for him to be wrong, but few cared to tell him so and his later work demonstrates a tendency to regard what he had initially stated, with due care and cavils, as a possibility to have acquired the cast-iron character of fact if it had stood unchallenged for sufficiently long.<sup>20</sup> All of this is not to deny his considerable insight and perception and his sensitivity to minor matters, or his intelligent determination to perceive systems and generalities that could explain what he saw as the ‘historical enigma’ of the development of Spain, but it does at least mean that it is worth seeing

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offensive title, ‘En defensa de viejas teorías’ in Sánchez-Albornoz, *Investigaciones sobre historiografía hispana medieval (siglos VIII al XII)* (Buenos Aires 1979), 402-17, or the beautifully-pitched but horrible display of the errors of his political and scholarly enemy Justo Pérez de Urbel in Sánchez-Albornoz, ‘De nuevo sobre la Crónica de Alfonso III y sobre la llamada Historia Silense’ in *Cuadernos de Historia de España* 37-8 (1963), 292-317, repr. in his *Investigaciones sobre historiografía*, 235-63.

<sup>19</sup> Sánchez-Albornoz, ‘Precio de la vida’, 395 of the reprint, n. 80, expresses confidence that his materials are adequate; later editions of them did not weaken this belief, as witness his *Ciudad hispano-cristiana*, 209: ‘No se han hallado empero nuevos fondos diplomáticos que yo no conociera y que pudiesen obligarme a cambiar estas Estampas, lo que me permite sentirme orgulloso de lo detenido de mis búsquedas’.

<sup>20</sup> One can observe this process in the progress from his ‘La redacción original de la crónica de Alfonso III’, *Spanische Forschungen der Görresgesellschaft* 2 (1930), 47-66, repr. in his *Investigaciones sobre historiografía*, 19-43, and his ‘La crónica de Albelda y la de Alfonso III’, *Bulletin Hispanique* 32 (1930), 305-25, repr. in his *Investigaciones sobre historiografía*, 44-65 to his ‘Alfonso III y el particularismo castellano’, *Cuadernos de Historia de España* 13 (1950), 19-100 at 90-100, and finally the revision of that last section as his ‘Otra vez sobre la crónica de Alfonso III’ in his *Investigaciones sobre historiografía*, 97-108.

how well his arguments still hold up.<sup>21</sup>

For Sánchez-Albornoz, it was unlikely to the extreme, given the lack of finds, that the northern kingdoms had any coinage of local manufacture circulating in this period. He was, however, prepared to envisage a considerable residue of older money, Visigothic tremisses, Suevic solidi and perhaps even a certain amount of Roman coin still (though the one document that seems to say—in 952!—so is extremely hard to interpret) being available, and slowly replaced by silver coin imported from the Muslim south and the Carolingian east.<sup>22</sup> There seem also to have been pieces of silver bullion called *argencios* or *arienzcos* in use, which Sánchez-Albornoz, like all after him, interpreted as hack-silver cut to a regular weight, although a similar documentary usage in Catalonia has usually been assumed to have implied ingots.<sup>23</sup>

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<sup>21</sup> Sánchez-Albornoz, *España: un enigma histórico* (2 vols, Buenos Aires 1967, now in 10th edn. Barcelona 1985). For a defence of the continuing value of Sánchez-Albornoz's work, see J. J. Larrea, 'Villa Matanza' in *Les sociétés méridionales à l'âge féodal (l'Espagne, Italie et sud de France X<sup>e</sup>-XIII<sup>e</sup> s.)*. Hommage à Pierre Bonnassie, ed. H. Débax, Méridiennes 8 (Toulouse 1999), 223-28. On this subject, however, his work has not even been supplanted, as witness F. Rodamilans Ramos, 'La moneda y la sistema monetária en la Castilla medieval', *Ab Initio* 1 (2010), 22-83, at 25-6, or Mínguez, 'Moneda medieval', e. g. 17 n. 6: 'Baste con citar aquí a Sánchez Albornoz, del que toman esta aseveración numerosos autores en trabajos posteriores'.

<sup>22</sup> *Portugaliae monumenta historica a saeculo octavo post Christum usque ad quintumdecimum*, ed. A. Herculano de Corvalho e Araujo and J. da Silva Mendes Leal (Olispone 1867-73), *Diplomata et chartae doc.* [hereafter PMH] no. 64: XXVIII solidos romanos usum terre nostra, discussed Sánchez-Albornoz, 'Organización monetária', 308 of the original and his 'Moneda de cambio', 417-18.

<sup>23</sup> See Mínguez, 'Moneda medieval', 26-8; cf. J. Pellicer, 'Metrologia comtal: homenatge a Joaquim Botet i Sisó' in *Symposium Numismàtic de Barcelona*, ed. J. M. Gurt & A. Balaguer (Barcelona 1979), 1, 261-311 at 268-9, and J. Jarrett, 'Currency Change in Pre-millennial Catalonia: coinage, counts and economics', *Numismatic Chronicle* 169 (2009), 217-43 at 226-7; on bullion economies elsewhere one

Of course, these disparate coinages could not make a coherent system of value, even if they were at all widely available. This made a more universal referent desirable, and for Sánchez-Albornoz, this was the sheep or the modius of wheat, both reckoned as equivalents to a solidus.<sup>24</sup> He assembled lengthy tables of prices and values in support of these ideas, and showed to his satisfaction that cows, however soldare they might be, almost always retailed at a much higher price.<sup>25</sup> Later additions to his lists, made by those with access to the actual documents, were mostly of similar enough an order, and presented with sufficiently extensive flattery of his earlier work, that he could endorse them as ‘fortificación’.<sup>26</sup>

The apparent contradiction set up by this system in which a sheep worth a modius worth a solidus would have to have the same value as a ‘solidary’ cow was resolved, for Sánchez-Albornoz, by invoking two separate solidi, the gold solidus of

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might mention not least M. Blackburn, ‘Currency under the Vikings, Part 5: the Scandinavian achievement and legacy’, Presidential Lecture, *British Numismatic Journal* 79 (2009), 43-71, repr. in his *Viking Coinage and Currency in the British Isles*, British Numismatic Society Special Publication 7 (London 2011), 119-47 at 48-51 of the original.

<sup>24</sup> Sánchez-Albornoz, *Ciudad hispano-cristiana*, 36-9, and his ‘Precio de la vida’, passim; cf. now Mínguez, ‘Moneda medieval’, 28-30.

<sup>25</sup> ‘Precio de la vida’, 376-82, with tables 397-409, animals specifically 404-8.

<sup>26</sup> ‘Moneda de cambio’, 422 n. 39, with reference to Sáez, ‘Nuevos datos’, of which a full half of the article text is taken up with gratulatory recapitulation of the work, ‘magistral como todos los suyos’, of the ‘ilustre profesor’ (865, 869), presumably because the point of his article was to point out things that Sánchez-Albornoz had missed; the older historian was of course the editor of Laguzzi, ‘Precio de la vida’. García Álvarez, ‘Moneda y precios’, was not so respectful. As Chris Wickham observes of Spanish scholarship of the period more widely, ‘post-Visigothic Spanish scholarship is stimulating, but not exactly eirenic’ (*Framing the Early Middle Ages*, 231).

Roman origin used by the Sueves and Visigoths (albeit at different standards, as he found argued in the contemporary work of Wilhelm Reinhart), and the new silver standard of the Carolingian empire.<sup>27</sup> He had even earlier demonstrated the likelihood of a shift from one system to the other in the kingdom of Asturias-León, and with his prices assembled argued that all instances of cows with such low values, whether called *soldare* or just bought at that sort of price, must be reckoned on the gold standard, whereas the *modius* that a sheep was worth, which was also worth a *solidus*, must have been reckoned in notional silver, although he did not precisely link the two things, and in his later work preferred to see the shift of standard as later, more ragged and more market-driven than he had when young (when he had loyally blamed King Alfonso II).<sup>28</sup>

This set of developing arguments, when fully assembled, had the potential to resolve some of the problems, but by no means all. For a start, as Sánchez-Albornoz had recognised from the outset, these usages were extremely regionalised.<sup>29</sup> While *boves soldares* might be encountered in documents from most of the Spanish north,

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<sup>27</sup> Sánchez-Albornoz, 'Precio de la vida', 383-4, revised in 'Moneda de cambio', 424-30, with reference to W. Reinhart, 'Los sueldos "gallecanas": monedas gallegas', *Cuadernos de Estudios Gallegos* 2 (1944), 177-84.

<sup>28</sup> 'Organización monetaria', 303-6; 'Precio de la vida', 383-4. On Alfonso II's Carolingian connections see R. Collins, 'Spain: The Northern Kingdoms and the Basques, 711-910' in *The New Cambridge Medieval History Vol. II: c. 700-c. 900*, ed. R. McKitterick (Cambridge 1995), 272-89 at 279-80, and J. Escalona, 'Family Memories: inventing Alfonso I of Asturias' in *Building Legitimacy: political discourses and forms of legitimacy in medieval societies*, ed. I. Alfonso, H. Kennedy & J. Escalona, *The Medieval Mediterranean: peoples, economies and cultures 400-1500*, 53 (Leiden 2004), 223-62.

<sup>29</sup> 'Precio de la vida', 378-82; his tables are organised by province to make the differences clear.

ovellas modiales are almost restricted to Galicia and Portugal, with some rare outliers in León, and porcos tremisales lack even these wider appearances. This may not be as representative as one would wish, since their appearances are so very sparse in the first place, but Galicia's general preponderance of payments in produce and livestock makes it somewhat more likely that this is a genuine reflection of different sorts of economy.<sup>30</sup> Payment in argenteos was considerably more usual around the southern city (and after 914, capital) of León than anywhere else, and in certain areas livestock and grain, or other rarer products, were the sole means of payment. These regional variations have lately been given their full flavour in a study by Wendy Davies, but their unevenness is discomfiting for anyone after a systematic view, even if predominant agricultural practices as determined by local geography probably have a lot to do with it.<sup>31</sup>

There is also variation over time. Sánchez-Albornoz had also considered this, and indeed this was his major conclusion from his first assembly of prices, that, even allowing for regional differences, prices seemed to have taken definite leaps in the mid-to-late ninth and late-tenth centuries. The first of these he attributed to the change of value standard disrupting prices and causing devaluation (although inflation seems a priori a more likely result of such an effective debasement) and the second to damage to the economy caused by the raids of the armies of the Muslim *hājīb* al-Mansur. Thereafter, however, he detected a steady price rise.<sup>32</sup> This makes his use of relatively late evidence in the construction of his equivalence of sheep and solidi via

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<sup>30</sup> Albeit that difference might be best seen as one of degree rather than of kind; see Valdeavellano, 'Economía natural y monetaria'.

<sup>31</sup> Davies, 'Sale, price and valuation'.

<sup>32</sup> 'Precio de la vida', 383-7.

the modius problematic, to say the least; when such an equivalence is to be established by two documents, from the same nunnery, from 950 and 1001, we must at least worry that this may not be like compared with like.<sup>33</sup>

So, there is room for considerably more variation over space and time in these systems than Sánchez-Albornoz, who was fundamentally looking for systems and social structures and believed that he had found them, was necessarily interested to display. This view was first expressed in an article by Sánchez-Albornoz's 'discipulo' Luis de Valdeavellano, once safely established in a chair in Barcelona, and seized upon by later opponents of Valdevellano's 'cuidado maestro', but in fact the variant valuation that Valdeavellano had spotted is rather late, and his article was concerned much more with a theoretical debate among largely German scholars about classifications of economic systems.<sup>34</sup>

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<sup>33</sup> First used in his *Estampas de la vida*, p. 27 n. 46, the evidence registered again in 'Precio de la vida', 408; the documents to which he referred are now printed as *Colección diplomática de Santa María de Otero de las Dueñas (León) (854-1037)*, ed. G. del Ser Quijano, *Textos Medievales* 20 (Salamanca 1994), doc. [hereafter Otero] nos 8 of 961, which has a price in which the sheep must be worth a modius (modios III et ovigula, sub uno modios IIII<sup>o</sup>) and 61 of 1008, in which half of a price of 200 solidi is paid with 100 sheep (kaballo I, apreciato in solidos C, et obiculas C, adpreciatas in solidos C).

<sup>34</sup> L. de Valdeavellano, 'Economía natural y monetaria en León y Castilla durante los siglos IX, X y XI (notas para la historia económica de España en la edad media)', *Moneda y crédito* 10 (1944), 28-46 at 36, cit. García Alvarez. 'Moneda y precios', 370-1, non vidit, instead via Sáez, 'Nuevos datos', and criticising Sánchez-Albornoz for ignoring these contrary findings, which in fact he had not; they are engaged in Sánchez-Albornoz in 'Moneda de cambio', 422 n. 41 where he made the same objections as do I above. Sánchez-Albornoz cited the article of Valdeavellano ('mi discipulo') with approval elsewhere ('Moneda de cambio', 412 n. 2) and obviously thought the correction bearable. The document that Valdeavellano cited was PMH no. 779, of 1092.

More serious questions were therefore raised first by the French historian Jean Gautier Dalché, who in a 1969 article presented his own long lists of tables of prices indicating some of this variation, and suggesting that rather than being a value standard as such, these nominal beasts should be taken to have been average animals that happened to fit the notional value, what might explain the rarity with which they occurred.<sup>35</sup> This resolves, or at least acknowledges, some of the wrinkles in the evidence, but leads us back ineluctably to the picture of a northern Spain across which a Galician sheep and a Leonese cow might both be worth a solidus as people contemporarily envisioned that quantity, from which Sánchez-Albornoz's more constructed paradigm had escaped.

At more or less the same time, the Galician historian M. Rubén García Alvarez published an article in which he demonstrated, without much more than lip-service to Sánchez-Albornoz's researches, that there were numerous more charters containing such references than the older historian had been able to find before he left Spain, and that they necessitated (in García Alvarez's view) revision of Sánchez-Albornoz's date for the change from gold to silver standards, at least for Galicia, which was the only area in which García Alvarez was interested. For him, the various value systems found in use in 'la nuestra terra' continued in use into the early eleventh century, along with the legacy coinages to which they referred, while Sánchez-Albornoz had thought that the old gold currencies, even if still circulating, could not long have

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<sup>35</sup> J. Gautier Dalché, 'L'histoire monétaire de l'Espagne septentrionale et centrale du XI.<sup>e</sup> au XII.<sup>e</sup> siècles: quelques reflexions sur divers problèmes', *Anuario de Estudios Medievales* 6 (1969), 43-95; at 49-51; it is a great pity that Gautier Dalché's tables only enumerated occurrences of such valuations without quoting them or indeed giving their quantities, as in they are considerably more complete than any of Sánchez-Albornoz's or his successors'.

outlasted the new influx of silver that he saw in (eventually) the tenth century.<sup>36</sup> He also maintained that the variation in prices detectable in the records precluded any idea of a standard livestock referent, and also critiqued Sánchez-Albornoz's explanations of those price changes over time by stressing that both parts of any valuation, the currency and the cereals or the livestock, might increase or decrease in value independently, with consequent effect on valuations using both.<sup>37</sup> García Alvarez had indubitably found more charters than Sánchez-Albornoz, and his economic explanations have more subtlety than the older historian's essentially political ones, but his arithmetic in decoding the often complex arrays of goods used to pay large amounts in Galicia, bent to disproving the existence of a silver standard in Galicia or any standard valuations in terms other than gold solidi, can sometimes reasonably be corrected.

For numismatists, also, there was considerable dispute to be had with Sánchez-Albornoz over his belief in the long survival of old money, and by extension even more so with García Alvarez's, based largely it seems on pride in Galician conservatism. Both held to this conclusion because of documents that appear to record payments in such coin. It has justly been argued, however, that such references to are ambiguous, not least because of the non-existence of actual silver solidi such as they imply; García Alvarez thought that these would have been paid in denarii, which have at least been found in the area in hoards of this period, unlike almost every other coin so far mentioned, but the question still remains why the documents would not say so,

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<sup>36</sup> García Alvarez, 'Moneda y precios', 365-8, noticing but not integrating Sánchez-Albornoz's revision of his chronology (see n. 27 above), 364 and n. 5.

<sup>37</sup> García Alvarez, 'Moneda y precios', 374-80.



especially since a very few do.<sup>38</sup> Since it was allowed to become clear that such mentions could refer to payments of such a value made in other goods, or in metal, however, it has increasingly seemed unnecessary to assume that any did not. Certainly, clearer instances of payment in coin are recognisable in documents from contemporary Catalonia, where a negligible local coinage appears to have been in circulation, or from later on in this area, once minting had certainly been resumed; such lack of ambiguity is unhelpfully missing from the documents under review, however.<sup>39</sup>

A solidus, or indeed a tremissis, need not therefore imply the actual coins of those names, therefore, even if specified in such detail as XV<sup>m</sup> solidos gallegarios usui terre nostre ('Galician solidi as are customary in our land'); a weight or a unit of

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<sup>38</sup> García Alvarez, 'Moneda y precios', 392, citing Liber Fidei, no. 28: porco de VIII denars. Sánchez-Albornoz, 'Moneda de cambio', 431-2, noted finds of Carolingian deniers in the ruins of the earliest church of Santiago de Compostela, cit. M. Chamosa Lamas, 'Excavaciones arqueológicas en la cathedral de Santiago (tercera fase)', *Compostellanum* 2 (1957), 221-330 at 270-71. These finds do not appear to have passed into the numismatic literature.

<sup>39</sup> For Catalonia, see G. Feliu Montfort, 'Las ventas con pago en moneda en el condado de Barcelona hasta el año 1010', *Cuadernos de historia economica de Cataluña* 5 (1971), 9-41, and now Jarrett, 'Currency'; the clearest reference is *Catalunya Carolíngia IV: els comtats d'Osona i Manresa*, *Memòries de la Secció històrico-arqueològica* 53 (3 vols, Barcelona 1999), doc. no. 1172: moneta propria publica ausonesis. Valdevellano ('Economía natural y monetária', 38) cited a document of 1099 from our area with a price given as L<sup>a</sup> solidos denariorum monete, but it is not at his cited location (PMH p. 532); other references to money payments from that era are however easy enough to find, e. g. PMH nos 741, 762 (moneta domno adefonsi regis, on which see Crusafont, Balaguer and Grierson, *Medieval European Coinage* 6, Chapter 9, section (d); the document is now better printed as *Livro Preto, cartulário da Sé de Coimbra: texto integral*, ed. M. A. Rodrigues (Coimbra 1999), doc. 26) or 809 (where denarius).

account must probably be preferred.<sup>40</sup> This means that we are dealing, when these coinages come up, with objects just as imaginary as the Platonic cow implied by our *bovo soldare*, but with its rare appearances, and the much larger numbers of other payments made with livestock, at least in some areas of northern Spain, we are at least dealing with animals that presumably did exist. It was their quality and value that appealed to imaginary concepts, not their whole being. Can we therefore say with more care what these characteristics were?

### **Characterising the data**

The documents can, in fact, be quite forthcoming about cows. They are not infrequently distinguished by colour, black, white, dark, pale, red, maroon, chestnut or brindled; they are of course always distinguished by gender, *bove* or *vaca* (to use contemporary spellings) or sometimes the pair; sometimes they came with calves, and sometimes would do shortly; sometimes they came in pairs, as a plough-team; one came with a cart and harness, thus making estimation of its sole value impossible.<sup>41</sup>

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<sup>40</sup> PMH no. 29; I have not been able to obtain *Livro de Mumadona: Cartulário medieval existente no Arquivo Nacional da Torre do Tombo* (Lisbon 1973), where this document should be better edited.

<sup>41</sup> *Cartulario de Santo Toribio de Liébana*, ed. by L. Sánchez Belda (Madrid 1948), doc. no. 4: *bove colore nigro*; *Libro de Regla, o, Cartulario de la antigua abadía de Santillana del Mar*, ed. E. Jusué (Madrid 1912), doc. no. 47: *bobe albo*; del Ser, Otero, doc. no. 59: *bove per zolore forzo*, which Sánchez-Albornoz ('Precio de la vida', p. 407) read: *bove colore fosgo*; Celanova 452: *vaca soldare colore laurea*; 'Cartulario de la iglesia de Santa María del Puerto (Santoña) [I]', ed. M. Serrano y Sanz, *Boletín de la Real Academia de la Historia*, 73 (1918), 420-42, doc. no. 5: *I baca rubia*; Lugo, 929: *vaca colore maura*; *Colección documental del Archivo de la Catedral de León (775-1230): II (953-985)*, ed. E. Sáez and C. Sáez, *Fuentes y Estudios de Historia Leonesa* 42 (León 1990), doc. no. 478: *vobe pro colore castanio in V solidos, et bacca nigra per colore in alios V solidos, et tapete polemdo in VIII solidos, et XIII solidos arenzeos, quod est sub uno pretio completu apput nos XXXIII solidos*;

They also evidently varied in value, or at least in quality; we have already mentioned the ‘middling’ cow, *vaca media*, but a 965 payment of three *boves optimos*, for the value of 12 *solidi*, thus 4 *solidi* a head, suggests that a *bove soldare* ought to have been a somewhat poorer beast.<sup>42</sup> In fact, in this instance, we are unlikely to be comparing like with like, but it is at least clear that, as was suggested at the beginning, the people using these concepts were also aware of the reality of variation in their supposed currency.

Making a good estimation of the value of that means of payment from these documents is, however, not simple. The number of transactions in which animals are used in payment of a stated price is not large; that where the price can clearly be pinned to the animals is smaller. One document from the nunnery of Sobrado in which a price was set at, “4 *solidi* and a *tremiss*, made up of an ox [...], some woollen clothing and 12 cheeses,” is especially impressive in its irreducibility, but many others could be quoted, including combinations of horse and tack with cattle that leave no way to assign separate values to their components.<sup>43</sup> Without having repeated the lengthy trawl through the documents, published and unpublished, that would be needed to better the collective efforts of the historians so far mentioned, I reckon the number of documents in which the price of cattle is either clearly stated, or arithmetically reducible to a sum per head, to be a mere 36 from the period 796-1010 (a cut-off point chosen because it avoids any possibility of new coinage having been

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Sánchez, Liébana, doc. no. 2:  *Baca vitulata*.

<sup>42</sup> Sahagún 229: III<sup>es</sup> *boves optimos apreciados in XII<sup>m</sup> solidos*.

<sup>43</sup> Respectively Sobrado 18: *Precio id est bove colore marceno, manto laneo vilado et chomacio, kaseos XII [ ] et est ipso precio in aderado solidos IIII<sup>or</sup> et I tremese*, and Celanova 204: *Equa una poldrada, bove I, solido inter panem et vinum, pelle una, flomazo pallio I, linteos VIII*.

struck in the area, and because at that point many of the records from Celanova become temporarily hard to date).<sup>44</sup> Of these instances, 22 come from the uplands of Asturias, Galicia and what is now Portugal (Asturias being evident only early on, which is a mirror of its documentary preservation generally); the other 14 come from León, and to a lesser extent, Castile. The totals for other animals are far poorer: 8 prices for sheep, all in modios and all but 2 from Galicia or the future Portugal, and 3 for pigs, all from that area.<sup>45</sup>

Presenting these figures then raises further issues. One naturally wants to try and gauge the mean price per year of the cows, but this means smoothing out considerable variation. A brief burst of sales containing useful data from León of 980, for example, give three prices in which feature a cow of 20 solidi and a bull and a cow of 5 each. The cow is not said to be *optima* but something obviously convinced the seller that she was worth the valuation of the land concerned, that of course also being subjective.<sup>46</sup> The mean price of 10 solidi a head for 980 fits the graph below very well, in fact, but one cannot but feel that it is missing some important detail. There is also the issue of different standards. This is more than a possibility: the values of cattle in the upland zone I have distinguished were far lower than in lowland León and Castile, and the question is merely why: although García Alvarez scorned Sánchez

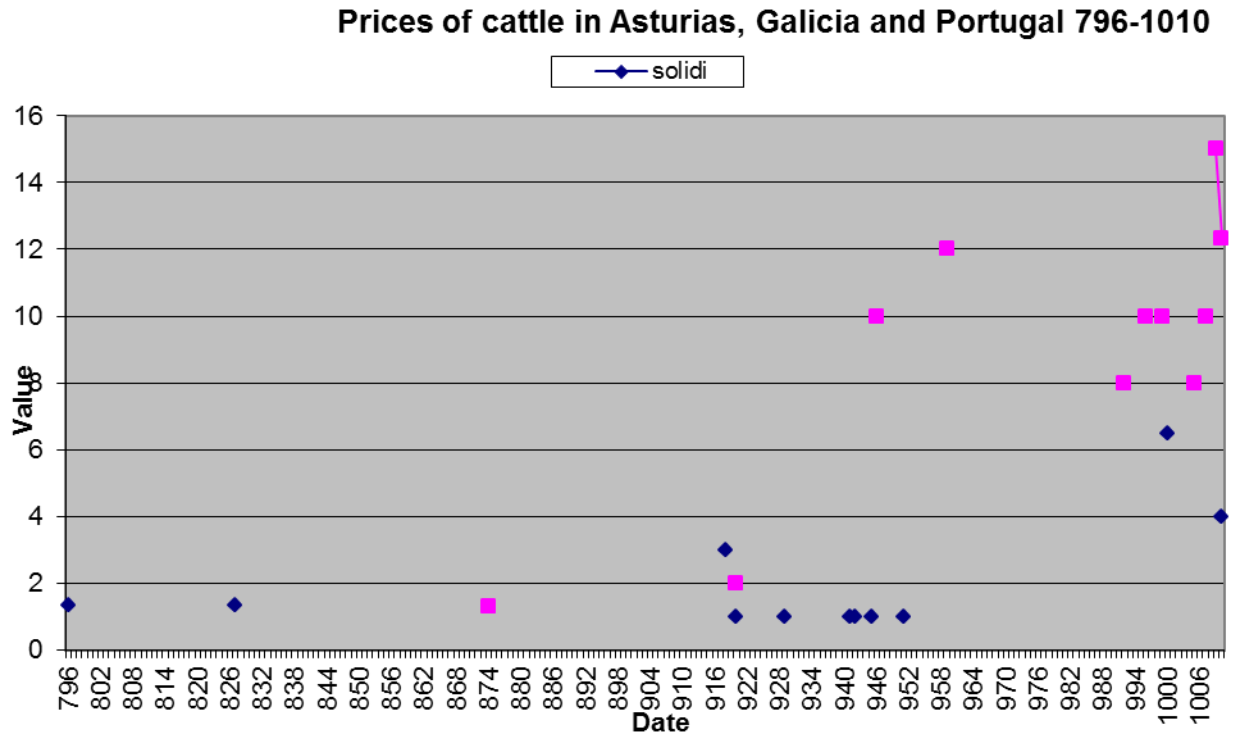
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<sup>44</sup> Arguments can be made that minting was resumed under Fernando I; see Sánchez-Albornoz, 'Organización monetaria', 315-41, and soon Crusafont, Balaguer and Grierson, *Medieval European Coinage* 6, Chapter 8 section (e).

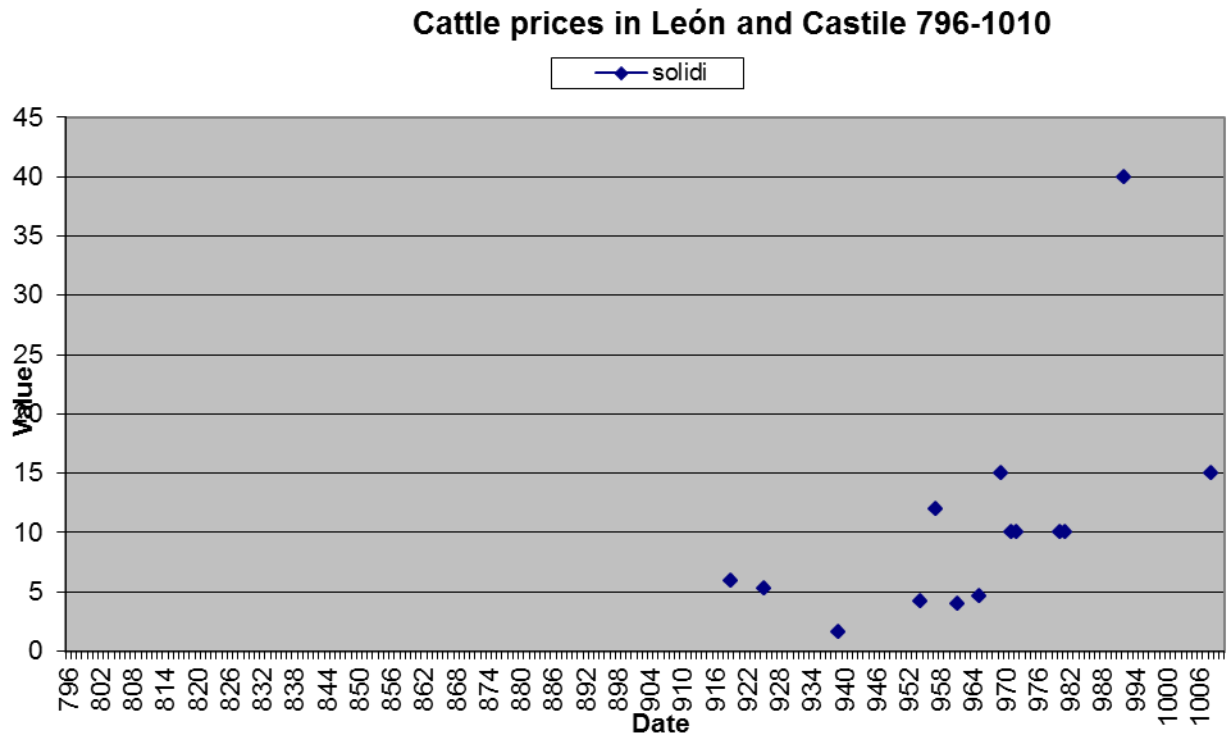
<sup>45</sup> The former of these figures could probably be increased, as García Alvarez, who found many other instances for cattle and swine that previous researchers did not, did not look for sheep.

<sup>46</sup> The two 5-solidi beasts are in Sáez and Sáez, León II, doc. no. 478, quoted n. 41 above; the 20-solidi one is not at the location given by Sánchez-Albornoz, 'Precio', p. 407, which appears to be scrambled.

Albornoz's old argument about frontier conditions in the south even though the older historian had changed his mind and decided the monetary standard must be the answer, as García Alvarez also believed, all the scholars who have worked over these prices have seen the same separation.<sup>47</sup> The two graphs below therefore repeat it, and by doing so hopefully make obvious the regional differences.



<sup>47</sup> See nn. 27 & 36 above.



As will immediately be seen, prices in León and Castile simply did get higher than those further north in this period, although the picture is much more alike when one omits the highest and lowest figures in each case. It is also clear that Galicia was much more produce-based than the more urban lowlands: the absence of prices in modios from the second graph is not accidental, there are none recorded (at least, none that can be matched to a known quantity of livestock). The datapoints are few, but they do also seem to indicate a rise in prices towards the end of the tenth century; whereas a normal cow in León might have retailed for about five solidi in 925 (and in fact did, if the three in question were normal anyway), by 990 ten would be a more normal price. In Galicia, however, while late on 10 modios of grain might seem a fair price (which is encouraging for the equivalence of that measure to a solidus), prices in money were usually at the one-solidus mark until very late, with a sudden jump at the year 1000, but still not to Leonese levels. This may be the point at which we should look for the shift from gold to silver reckoning in this conservative area, but this has

its own implication, to wit that the bovo soldare must have been worth a gold solidus, not a silver one, as indeed Sánchez-Albornoz seems to have come to suppose.<sup>48</sup> The conversion value, taking contemporary instances from the two zones, of roughly one to five, is much lower than any of the historians working on these matters would have supposed, but this is not least to a late document that helpfully tells us that a solidus of gold was worth 15 of silver, something that no contemporary Andalusí trader, at least, would have given for it.<sup>49</sup> Since, of course, the actual coins were unlikely to have been at issue, such arithmetic cannot be rigorous, but the idea of two different regional standards seems pretty irrefutable once the data is examined.

Giving the prices for sheep and pigs, few as they are, does not seem to require a plot; I present them below as tables.

#### Prices of sheep (including *oveliae modiales*) in Northern Spain 796-1010

Date	Province	Mean price in modios	Text
861	Asturias	0.75	karnario unum in tria quartaria <sup>50</sup>
942	Galicia	1	cabra modiale <sup>51</sup>
961	Galicia	0.25	ovelia quartario I <sup>52o</sup>
961	Galicia	1	ovelia modiale <sup>53</sup>
962	Galicia	1	ovelia modiale <sup>54</sup>

<sup>48</sup> 'Moneda de cambio', 432-8.

<sup>49</sup> Sánchez-Albornoz's source was late manuscripts of the Visigothic Law, arguably not a good index of contemporary practice even if updated; he gave a text at 'Moneda de Cambio', 436, citing *Leges Visigothorum*, ed. K. Zeumer, *Monumenta Germaniae Historica (Leges Nationum Germanicum)*, 1 (Hannover: Hahn, 1902, repr. 2005), 33-456 at V.15.

<sup>50</sup> Sahagún no. 3

<sup>51</sup> Celanova no. 451.

<sup>52</sup> Celanova no. 406.

<sup>53</sup> Celanova no. 390; see n. 10 above.

<sup>54</sup> Celanova no. 397.

964	Galicia	1	ovelia modiale <sup>55</sup>
1001	León	1	cabra in modio <sup>56</sup>
1008	León	1	ovigula <sup>57</sup>
1010	Galicia	2	oves Iias <sup>58</sup>

**Prices of pigs in Northern Spain (including *porcos tremisales*) 796-1010**

Date	Province	Mean price in solidi	Mean price in modios
975 <sup>59</sup>	Portugal		2
990 <sup>60</sup>	Galicia	0.33 (tremisale)	
999 <sup>61</sup>	Portugal	0.67 (8 denarii)	

From these results it is very hard to get much at all. So many of the sheep were ovelias modiales that saying that sheep were commonly worth a modius is merely to adopt the presumption of the sources, and the value of pigs can hardly be assessed from so nugatory a sample. All that can be said is that other instances can be adduced that make the Galician solidus come out at six modios, as the first pig here would imply if it were tremisale.<sup>62</sup>

Such tinkering, which García Alvarez carried out mainly to demonstrate the frailty of Sánchez-Albornoz's similar calculations, can certainly be done in a way that brings the more complex equivalencies into line with some of these results. An instance that he cites of a price composed of 4 modios paid with a modius of rye and a

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<sup>55</sup> Celanova no. 403.

<sup>56</sup> Otero no. 42.

<sup>57</sup> Otero no. 61; see n. 33 above.

<sup>58</sup> Celanova no. 197.

<sup>59</sup> García Alvarez, 'Moneda y precios', 392, citing Archivo de la Catedral de Lugo, est. 64, lg. 4, no. 12. There is as yet no edition of Lugo's archive.

<sup>60</sup> Celanova no. 409; see n. 11 above.

<sup>61</sup> Sánchez-Albornoz, 'Precio de la vida', 408, Laguzzi, 'Precio de la vida', 146 (where given as 8 solidi), García Alvarez, 'Moneda y precios', 392, all citing Liber fidei, no. 28.

<sup>62</sup> Cf. Sahagún no. 125, quoted n. 10 above.



new and tremisale shirt, which seems to require that a tremiss be worth three solidi is only as ridiculous as he supposed if one reckons that the equivalence of a modius and a solidus was to be calculated on the gold standard; but clearly no-one was so calculating, or the ‘modial’ sheep would presumably have been solidare like their more expensive bovine companions.<sup>63</sup> As long as the modius = solidus equivalence is only required to operate with imaginary silver solidi, not imaginary gold ones, the shirt’s price was impressive but consistent. On the other hand, some of the instances García Alvarez dragged up make less sense. Making a fixed system out of all of this is a game for madmen, and supposes a level of coordination between very different and separated communities that is quite frankly implausible. The standards that we are seeing may have varied from place to place, certainly did from time to time, and the transactors’ estimations of the goods that were fitted to them can only ever have been subjective.

What we can say, however, is that relatively few cows seem to have been worth a (gold) solidus, although this is hard to reckon for places beyond the gold standard without a clear conversion figure, of course. While most of the sheep to which we can put a price were modiale, others were not, and those that were were so over a period when a sharp rise in prices might have been expected. Pigs, meanwhile, do not seem to have conformed to their notional value well either, though this is hard to judge within this period. The idea that such ‘standard’ animals could have formed a currency is beyond plausibility: obtaining a beast that everyone could agree was the right value, despite the obviously short-term relevance of any comparable exemplar beasts, would have placed a premium on such animals that would have immediately

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<sup>63</sup> Celanova no. 192: id est cibaria modios I, saia nova tremissale I, sub uno pretio modios IIIor.

made them more expensive.<sup>64</sup> Finding a Suevoic tremiss might even have been easier, although it seems more likely that the Galician documents that refer to an *usus nostri terra* mean the gold standard as a whole, set against the Leonese preference for silver, as opposed to a specifically Suevoic one surviving through a century of Visigothic minting.

The *bovo soldare*, therefore, could not genuinely operate as a referent, and it seems clear that by and large it did not. Nonetheless it remained conceptually available, much as when someone wealthy nowadays is asked what bread costs in the supermarket. This is also a question with no single answer but the idea that it represents still has power. The *bove soldare* was, it seems, such a piece of goods: a gold *solidus*, itself only a remembered value, was what a Platonic, a notional cow, would cost, more or less, and now and then one turned up that was of that sort of value, but the occurrence was rarer than not and certainly not required for any given transaction. We should almost certainly assume the same of the sheep and the pig whose notional values fitted into the conceptual framework so neatly. The occasional conformity of such an animal in any given transaction was probably satisfying, and convenient, to the transactors if they could agree it, but we should not take from this that the next time the animal might be sold, even if it was substantially unchanged by the passage of whatever interval there might have been, that convenient value would have been reproducible or recoverable.

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<sup>64</sup> A Cambridge instance of the same phenomenon could for a while be seen at the kiosk in the recently-built toilet block on Parker's Piece, which would happily sell one a 20-pence coin such as the toilets required to operate, for 35 pence.

## Conclusions and Speculations

Thus, the value standard implied by the bovo soldare obviously existed, just as did that implied by prices in solidi despite their even more thorough absence, but beasts' conformity to that standard was subjective, and very far from necessary. As a concept, it existed more strongly in Galicia than elsewhere, partly because of the greater density of transactions in livestock and produce there, and partly because the old currency system within which the valuation made sense seems to have hung on in people's heads there longest. The idea of what a cow should be worth was, however, transmitted more widely, including into areas less mountainous and (as Sánchez-Albornoz would have had it) more hazardous, and the system as variously applied seems broadly consistent, albeit with price changes that are best left to other historians to dispute.

Some further, more hypothetical observations may also be worthwhile. If we are to see the set of three animals with notional values as a coherently imagined system, which it may not have been, one notable thing about that system is that it is based both on coin and on produce, which implies that the economy that generated it was operating on a basis of only partial monetisation. To imagine this occurring in an economy in which coin was not, in fact, being produced, seems almost more likely than to find it in the Visigothic one, in which copper coins were struck that do not feature in the scheme. Coin was obviously remembered at this point, however, as tremisses had actually existed and may occasionally have been found in our period. The three-level standard would seem, therefore, to necessarily be post-Visigothic, but perhaps only narrowly so. All the same, when our first documents invoke it in 796 (when the cows in question were already over-valued) it cannot have been very old, either, and it may be that such the creation of such a system, by whatever authority or

consensus, was in fact provoked by the exposure to the Carolingian silver coinage now being struck in the north-west of the Peninsula. These would have been too short of supply to make a standard by themselves, but they may have necessitated the imagination of a referent against which they could be reckoned, a referent which however affected more usual transactions in these areas very little. Thus to see the *bovo soldare* as a cow of anti-Carolingian reaction thinking is almost certainly going too far, but it may not be the oddest thing that has been imagined of the poor beast, and perhaps with this survey we have built a better home for the cow to come back to.