

Original article

THE EXCHANGE RATE OF FALS IN THE ISLAMIC ORIENT FROM
ARABICIZATION TILL THE END OF THE UMAYYED PERIOD

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Abstract

The current study affirms that fals were important currency in the Islamic monetary system. The state paid to them a similar interest to that of the main currency (dinar and dirham). This was greatly manifested by the interest paid by the Umayyad state when the pure Arab type of fals was introduced that had a fixed exchange rate for the dirham and was directly supervised by the state. Additionally, the state exploited their diffusion and using them as a subsidy to dinar and dirham. They were also utilized as a fast media and a formal document used by people to ask for their rights if exploited.

Keywords: *Exchange rate, Fals, dirham, Umayyad state, Islamic Orient.*

1. Introduction

Since its establishment, the Islamic state utilized the financial systems that dominated the pre-Islamic period. The Prophet (PBUH) approved the same currency. He also approved the transactions of weight and measure to control the management of people's lives in this early period. Among such weight units, the legal units were introduced, e.g. dirham alkayl and its parts of the kernel, carat...etc [1, 2]. Hence, legal transactions, e.g. the quorum of almsgiving, dowry, blood coins ...etc. were defined. Dinar and dirham continued in the Islamic state. In the beginning, attempts were made to control weight and value to correspond with the principles of Islam calling for equality and keeping people's rights. Then, Arabization was introduced, when coins completely took the Islamic style. It is noted that the same was applied to the coins that were used

to support the dirham and dinar. Their rates of exchange still the same from their invention at the time of the emperor Enstasious I in 498 A.D. who minted a number of Copper coins, each of which equaled 40 Nummus, known as Fals. They were categorized into various groups, i.e. twenty, ten, and five nummi^(a) [3]. In the beginning, is noted that the Islamic state was interested in setting the correct financial rules that correct the exchange and using the main currencies, i.e. dirham and dinar, because Fals was used in degrading issues as mentioned by some scholars [4]. That is, they still the same as they were measured to dinar that equaled 72 nummi. The same case was also applied to fals that equaled a set of nummi. On each type, a Latin letter was inscribed indicating its value. Arab used the same coins the same way. Fals also underwent the same Ara-

bization steps until the pure Islamic style was applied. In the reign of “*Abdulmalek ibn Marwan*”, financial reform continued when the Byzantine effects were completely eradicated that were replaced with Islamic writings. Its oldest type dated back to 87 A.H. / 705 A.D. Financial reform of Fals was issued in more than 66 cities in the Islamic world, suggesting the attention people gave to them. They were issued in many cities to fulfill people’s needs. The Caliphs allowed the governors of territories and states to issue Fals and define their values and inscriptions independently. They followed decentralization of minting Fals, unlike dirham and dinar that were greatly controlled in the central minting centers regarding weight, measure, and inscriptions. In other words, Fals’s circulation, value, and relation to the main currencies, i.e. dirham and dinar, varied from one territory to another. They were also related to other factors such as the available amount of gold, silver, and copper and the internal and external commercial and economic activity. The lack of a certain rule for Fals was primarily because they were local. That is, they were often limited to local transaction in cities and territories and they were not common outside. On the contrary, dinar and dirham were international currencies; they were used among countries [5, 6]. Fals was made of copper or bronze. They differ from gold or silver regarding the economic value and nature. They are affected by environmental circumstances and are more vulnerable to corrosion. In addition, Copper mines are not available in all territories. Therefore, the areas that have more mines can be minted in a more regular way. Because the cost of transportation from the places of raw materials may be higher than the desired value, the size of Fals may differ. Accordingly, their

2. Cases Studies

Through our different studies it could be claimed that the fals types under the study were chronologically classified,

texts vary because of the narrow space available. However, those in charge of the states and political appeals sometimes overlooked this issue to make use of Fals for their strong effect. They utilized them to reach all people, especially the poor to disseminate their ideas and cases, facilitate daily transactions, and not to break the main currency. Their values varied according to the city they were minted as they were subsidy to dinar and dirham even if the main currency were used by weight or number. Dealing with Fals was always related to number because there was not a defined weight by the state as zakat was not imposed by them. Their exchange rate was estimated to dirham as it was the closest in economic value. Because there were various minting institutions and they were used locally but with no generally defined weight, most authors argued that there was not a defined exchange rate for dirham. However, this might not be accurate. This issue can be reconsidered via the form of Fals that were minted since the beginning of their Arabicization till the end of the Umayyad period in the states of the Islamic Orient. It investigated various types with their defined exchange rate for dirham in different parts of the Umayyad state to be obligatory and to hinder exploitation when exchange rates varied that might cause the decline of the economic conditions. Such Fals were investigated to prove that they were not used without definition by the state that the interest in them was sometimes greater than that paid to dirham and dinar. The stability of their exchange rate greatly indicated the stability of the internal economic conditions which in turn affected the state. Without the lack of internal economic stability, the state lost its economic or political status in general.

but those with no date were classified according to their inscriptions, as follows:



2.1. The 1st case

Fals minted in the Umayyad period with their exchange rates included those minted by *Qotayba ibn Muslim Elbahyly*, commissioned by *Elhajaj ibn Youssef Elthaqafi* (86-96 A.H. / 705- 714 A.D.), during the conquest of the states of the Islamic Orient in Khorasan and Transoxiana, fig. (1). Because this type was mainly minted to define its exchange rate, the

author argued that it was inscribed on the obverse. In addition, its texts accurately illustrated the events of the time. Furthermore, the size of the Fals under investigation (13-15 mm) gave people in charge of minting a good chance to clearly inscribe that helped reveal the message. Inscriptions were central with no borders.



Figure (1) Shows a fals on which the date and place of minting were not inscribed. It was minted at the time of Quotaiba ibn Muslim (86-96 A.H.) in the states of Islamic orient. Its exchange rate was (120 fals for a dirham); weight: 2.63 gm; size: 14-15 mm, (<http://www.zeno.ru/showphoto.php?photo=13823>, another model; weight: 2.60 gm; size: 13 mm, <http://www.zeno.ru/showphoto.php?photo=13824>)

<i>The obverse</i>		<i>The reverse</i>	
In a circle of adjacent granule	مائة و عشرين بدرهم Maa wa eshreen bi-dirham	In a circle of adjacent granule	المنصور الأمير قتيبة بن مسلم Elmansour prince Qotayba ibn Muslim
			
Extracting the writings and decorations of a type of Qotayba ibn Muslim's Fals (86-96 A.H.) in the states of the Islamic Orient (by the author)			

2.1.1. Inscriptions of the obverse

They were on three lines (one hundred and / twenty / for a dirham), defining the exchange rate of the time. Noticeably, it was twice as much as the official rate of the subsequent fals (i.e. sixty for a dirham) that the author argued that it was the official rate across

the Islamic state as it was inscribed on various types. Furthermore, if the number (120) was compared to the legal weight of the Islamic dirham of the time (6 دانق Dank = (10 حبات kernels × 6) = 60 حبة kernels) or as stated by the Caliph “*Abdulmalek ibn Marwan*” (15 قيراط Qirat

= (15 × 4 = 60 kernels) [7]. Because each dirham equaled 120 fals, each fals equaled half a kernel (1 kernel= 2 fals). Consequently, defining this exchange rate was not random. In other words, fals of the time were significant in people's life like dinar and dirham that were used according to weight if they were not defined. This text restrained belittling their values and motivated using them in defined numbers. It was an attempt to maintain the value of subsidiary units in the financial transactions, indicating that they were performed according to a set of defined rules. This

2.1.2. Inscriptions of the reverse
 These inscriptions were on three lines (*Elmansour/ prince Qotayba/ ibn Muslim*). Inscribing "Elmansour" title indicated victory. The Holy Qur'an and Prophetic Hadith mention various synonyms of victory that mostly indicate defeating the enemy. *Qotayba* used it as a good omen and to threaten his enemies that he could not be defeated as a strategy in a psychological war. This affected the sequence of events of the time. It was noted that *Qotayba* was a great leader that the enemies were afraid of [8]. Then, his name was inscribed on the following two lines (prince *Qotayba/ ibn Muslim*), indicating

2.2. The 2nd case

Fals also minted in the Umayyad period with their exchange rate in Balkh in 97 A.H. According to Schindel [9], a type was minted in Balkh in 93 A.H. Extraction of the inscriptions showed that



could be interpreted, as follows: (a. These areas were unrest because Muslims did not stay in the conquered areas and there were many attempts by Prince *Qotayba ibn Muslim* to control the subsidiary areas that endangered them. (b. The pure Arab type of coins was not completely used in these areas where the Sasanian one dominated with the Byzantine dinar and other local currency. Therefore, *Qotayba* sought to attract the inhabitants to use the coins of the Islamic state that had a high economic value. Actually, it was a genius attempt.

the place and time of using this type. He ruled the states of the Islamic Orient (86-96 A.H.). To conclude, what *Qotayba* did was a unique attempt to control the exchange rate of the local currency to ensure the internal economy of the states he was ruling to safely continue the conquest. Additionally, the phrases used focused on two main aspects: (a. Settling and announcing the exchange rate of fals for dirham. (b. A propaganda in these areas. However, the city and year of minting were disregarded to be easily circulated and adhered to in various cities and for long periods.

it was Baliekh (بليخ) not Balkh in (79 A.H.) not (93 A.H.). It is a significant type because of its place and inscriptions, fig. (2).



Figure (2) Shows a fals minted in Baliekh on which the exchange rate was inscribed (360 for a dirham) weight: 2.93 gm; size: ...mm. (<http://www.zeno.ru/showphoto.php?photo=47583>), another model; weight: 4.1 gm; size: 22 mm, (<http://www.zeno.ru/showphoto.php?photo=7051>, A third model; weight: 4.25 gm; size: 23 mm, <http://www.zeno.ru/showphoto.php?photo=7050>)

<i>The obverse</i>		<i>The reverse</i>	
A center in a circle of adjacent granule	بليخ Baliekh	A center in a circle of adjacent granule	•
A border between two circles of adjacent granule	ثلث ماية وستين بدرهم Thulth maiaa wa seteen bi-dirham	A border between two circles of adjacent granule	ضرب بليخ في سنة سبع وتسعين Minting of Baliekh in 97
			
Extracting the writings and decorations of a fals from Baliekh in 97 A.H. (by the author)			

2.2.1. Inscriptions of the obverse

This obverse was circular in the inscriptions. It included a center in a circle of adjacent granule where the place of minting, i.e. "Baliekh", was inscribed. The inscriptions of the borders were also circular (Thulth maiaa wa seteen bi-dirham), defining the exchange rate. They were surrounded by two circles of adjacent granule. Two significant issues arose regarding the obverse of fals: **a)** The place of minting (Baliekh) was inscribed in the middle. It differed from previous readings of this type. Photoshop was used in extracting the writings and they were corrected. Elasmaay reported that "Baliekh" is a red mountain in an area owned by Abey Bakr ibn Kelab tribe near Elsottar.

According to Elhamawey, it is a river in Elreqa where water gathered from springs, the greatest of which was Elthahbania in Harran. It was 5 miles. Then, it sloped to a place where "Maslama ibn Abdulmalek" constructed a fort. He made the water of those springs run under it. When it left the fort, it was called "Baliekh" that was further divided into rivers that watered gardens and villages. Finally, they all poured out into the Euphrates that was one mile from Elreqa. Ibn Dareed said "I did not think that it was an Arabic word" "balkh" was used as a synonym for arrogance. It was even used in poetry. For example, Abu Nawas said (For the coast of Baliekh and its people***

ذكر "ياقوت الحموي" أن "الأصمعي" قال البليخ: بالفتح ثم بالكسر، وباء والحاء مهملة: هو جبل أحمر في رأس حزم أبيض لبني أبي بكر بن كلاب قرب الستار. وذكر "ياقوت" أيضاً أن البليخ: بالحاء المعجمة: اسم نهر بالرقعة يجتمع فيه الماء من عيون، وأعظم تلك العيون عين يقال لها الذهبانية في أرض حران، فيجري نحو خمسة أميال ثم يسير إلى موضع قد بني عليه "مسلمة بن عبد الملك" حصناً، يكون أسفله قدر جريب وارتفاعه في الهواء أكثر من خمسين ذراعاً، وأجرى ماء تلك العيون تحته، فإذا خرج من تحت الحصن يسمى بليخاً، ويتشعب من ذلك الموضع أنهار تسقى بساتين وقرى ثم تصب في الفرات تحت الرقة بميل؛ قال ابن دريد: لا أحسب البليخ عربياً، ولكن يقال: بليخ إذا تكبر؛ قال أبو نواس: على شاطئ البليخ وساكنيه *** سلامٌ لمّ لقي الحماما. وقال عبيد الله بن قيس الرقياتي: (حلق من بني كنانة حولي *** بفلسطين، يسرعون الركوبا - ذاك خير من البليخ ومن صوت *** ذئاب، على يدعون ذيباً). وقد جمعها الأخطل وسماها بلخاً، قال: (أقفر البليخ من عيلان فالرحب *** فالمحلبيات فالخابور فالشعب).

A peace sent by pigeons) [10]. Consequently, it was used for a river in Mesopotamia^(b) where Bakr, Modar, and Rabeaa tribes lived. Le Strange said that

Modar lived on the banks of the Euphrates. Elreqa was their greatest city. It was in the mouth of Baliekh river that came from the north [11].

وقد وصف موضعه لستراتيج حينما ذكر أنه: (كانت ديار مضر تحف بضافا الفرات، وأجلّ مدنها الرقة، وهي فوق مصب نهر البليخ المنحدر من الشمال الى الفرات.....).

He also reported that it poured out in the Euphrates. The Greeks knew it with (Bilecha), with a spring known as Elthahbania to the north of Heran. This location was reported by other resources but as Eldahmania and Elthahbana. Elmostawfy wrote it in (Persian) as heshma dahana (i.e. the spring of Dahana). It moved towards the north, then poured out in the Euphrates. It watered great

cities. For example, near its head was Heran (Carrhae) and Elraha (in Greek Callirhoe). To the south of Heran near Baliekh, there was Bajada Village on the way to Ras Elaen where there were gardens. It was not far from "Maslama" fort. There was a well that "Maslama" repaired. Baliekh river poured out in it and it was enough for the whole year [11].

وذكر أيضاً: (.... ويستقبل الفرات من يساره أسفل الرقة نهر البليخ، وقد عرفه اليونان باسم بليخا (Bilecha) ومنبعه من عين تسمى عين الذهبانية في شمال حران، وورد اسم هذا العين أيضاً في المراجع التي بيدنا بصورة الدهمانية والذهبانية، وكتبه المستوفى (بالفارسية) بصورة حشمة دهانة أي عين دهانة. ويجري البليخ نحو الجنوب ثم يلتقى بالفرات تحت الرقة ويمر بمدن جليلة كان سقيها من هذا النهر وروافده. ف قرب منبعه حران (كرها Carrhae) وكانت مدينة الصابئين.....، أما أدسا وقد سماها العرب الرها (وهو تحريف للاسم اليوناني كلر هو Callirhoe) فهي عند منابع أحد روافد البليخ....، وفي جنوب حران على مقربة من شرق نهر البليخ، مدينة باجدا الصغيرة على الطريق إلى رأس العين، وكان فيها بساتين، وهي قرب حصن "مسلمة" الذي هو أقرب الى البليخ منه الى باجدا وقد نسب هذا الحصن الى "مسلمة بن عبد الملك" الخليفة الأموي.....، وشرب أهله من مصنع فيه طوله مئتا ذراع في عرض مثله، وعمقه نحو عشرين ذراعاً معقود بالحجارة. وكان مسلمة قد أصلحه، والماء يجري فيه من البليخ في نهر مفرد في كل سنة مرة حتى يملأه فيكفي أهله بقية عام. ويسقى هذا النهر بساتين حصن مسلمة.....).

It could be concluded that Baliekh river passed through a large area of Mesopotamia^(c) [12]. Besides its native people, well-known Arab tribes lived (i.e., Bakr, Modar, and Rabeaa). There were also important cities and areas, including Elreqa, Heran, Elraha, Ras Elaen, and Maslama fort. Because of the expansion of this area and its political events, controlling the exchange rate of fals as the internal currency required following-up and documentation. Therefore, those in charge of the issue wanted to install their exchange rate for dirham to be obligatory. Baliekh was inscribed to inform that it was a compulsory type for all areas that the river passed through. **b)** The phrase of defining the exchange rate in the borders (Thulth maiaa wa seteen bi-dirham "360 fals = 1 dirham). If compared to the exchange rate in the states of the Islamic Orient during the reign of Quotaiba (120 fals =

1 dirham) and (60 fals = 1 dirham), it was too high; it was thrice as much as the exchange rate of Quotaiba's reign and six times as much as the exchange rate registered later and dominated most of the Islamic states. Furthermore, if compared to the weight of dirham (60 kernels), it equaled one sixth of a kernel (1 kernel= 6 fals). It should be noted that fals had a certain nature that they varied from an area to another. In some cases, they might be prohibited to use in another province. On the contrary, dinar and dirham were official currencies. They were allowed to be used across the states. Sometimes, they were used outside the state. Consequently, each province had its own fals. They might agree on the inscribed texts at times. Mostly, they varied in size, form, and exchange rate for the dirham. This could be attributed to the unavailability of copper that was

used to mint the fals. In other words, in areas where copper was available, it was easy to largely mint fals. Hence, more fals were used for the dirham. Unlike the areas where it was not abundant, so they were only used when necessary because transportation and minting might be costlier than the economic value of fals. In addition, there were other factors that affected minting from one territory to another. Accordingly, the high number of fals for the dirham, in the type under study (360 fals = 1 dirham), might be interpreted, as follows: * The abundance of copper in Mesopotamia, but it should be considered that each city there had the right to mint its own fals. Thus, there was an inflation of the fals used; each dirham equaled 360 fals. The ruler endeavored to control transactions by minting this type and inscribed Baliekh river to be binding to all areas where the river passed through, especially in defining the exchange rate for the dirham (360 fals = 1 dirham). Therefore, Baliekh was inscribed in two positions; the center of the obverse to draw the attention of people and the borders of the reverse. * It is well-known that any imbalance of the economic system of states directly affected the value and rate of exchange of the currency. This, in turn, affects all the financial transactions. Therefore, the competent authority shall control the issue and set strict rules for the financial transactions in order to leave no room for unrest and spoilers. Such rules might be exaggerated in some areas according to their nature and size of economic depression. Actually, they were imposed by the circumstances. At that time, Iraq and Mesopotamia were ruled by one of the severest rules, i.e.

Elhajaj ibn Yusef Elthaqafy (D. 95 A.H.) sooner before minting this type. Taxes imposed at the time greatly affected the economic depression that might be motivated people to use fals. This created a severe inflation, causing rarity of using the dirham if compared to fals. This situation motivated the rulers after Elhajaj to attempt treatment by setting rules of exchange and dealing with fals. When "Yazeed ibn Elmahalab" was appointed as a ruler by "Suliman ibn Abdulmalek" in Iraq, he said "Iraq was ruined by Elhajaj. But, now I'm the ruler. If I followed him in imposing taxes and imprisoned those who refuse to pay, I shall be like him. However, if I do not make the same profit, Suliman may be irritated". Therefore, he paid a visit to Suliman and said: "I may inform of a wise man who shall oversee taxes". When Suliman agreed, he nominated Saleh ibn Abdulrahman of Tameem. Then, he was appointed and moved there before Yazeed and stayed in Waset. When Yazeed arrived, people welcomed him but Saleh came in Eldaraa with 400 persons from the Levant to meet Yazeed. Saleh restrained Yazeed who used 1,000 buffets to feed people. However, Saleh took them. Yazeed said, "you may register them for me". After that, he bought goods and wrote a bill to Saleh who refused to accept and said, "taxes do not afford what you want and the Commander of the Faithful cannot accept it". Yazeed said, "you may accept this time and I shall not do this in the future". Saleh accepted. When Yazeed got irritated of the conditions of Iraq and Mesopotamia and the constrictions of Saleh, he endeavored to be appointed as a ruler of Khorasan [8,13,14].

يدل على ذلك ما ذكرته المصادر التاريخية على لسان "يزيد بن المهلب" عندما ولاه "سليمان بن عبد الملك" العراق وفوض إليه حربها والصلاة بها، وخراجها فنظر "يزيد" لنفسه وقال: (إن العراق قد أخرجها الحجاج وأنا اليوم رجل أهل العراق ومتى قدمتها وأخذت الناس بالخراج وعذبتهم على ذلك صرت مثل الحجاج وأعدت عليهم السجون وما عافاهم الله منه ومتى لم أت سليمان بمثل ما كان الحجاج أتى به لم يقبل مني، فأتى يزيد سليمان وقال: أدلك على رجل بصير بالخراج توليه إياه قال: نعم، قال: صالح بن عبد الرحمن

مولى بني تميم، فولاه الخراج وسيره قبل يزيد فنزل واسطاً، وأقبل يزيد فخرج الناس يتلقونه ولم يخرج صالح حتى قرب يزيد فخرج صالح في الدراعة بين يديه أربعمئة من أهل الشام فلقى يزيد وسائره، فنزل يزيد وضيق عليه صالح فلم يمكنه من شيء؛ واتخذ يزيد ألف خوان يطعم الناس عليها فأخذها صالح فقال يزيد: اكتب ثمنها على واشتري يزيد متاعاً وكتب صكاً بثمنه إلى صالح فلم يقبله وقال ليزيد: إن الخراج لا يقوم بما تريد ولا يرضى بهذا أمير المؤمنين وتؤخذ به فضاحكه يزيد وقال: أجر هذا المال هذه المرة ولا أعود، ففعل صالح. "وحينما ضجر يزيد بن المهلب من أحوال بلاد العراق والجزيرة وقلة مالها وتضييق صالح عليه فيها أراد أن يتولى خراسان فأعمل الحيل حتى ولاه سليمان بن عبد الملك خراسان وترك بلاد العراق وما بها من ضيق..."

It could be inferred that the conditions of Iraq and Mesopotamia were poor. There were also economic crises and depression. They directly affected the currency. That is, they tended to use a currency of low value (fals), causing a

2.2.2. Inscriptions of the reverse

The reverse of this type was circular in inscriptions, containing a center surrounded by a circle of adjacent granule with a blank point (•). The borders were also circular containing this phrase (Minting of Baliekh in 97), surrounded by two circles of adjacent granule. They contained a phrase that defined the place and year of minting. It was inscribed (Minting of Baliekh) that corrected former readings of this type's inscriptions. Baliekh was inscribed on both the center and the borders to affirm the importance of areas that the river passed through and the necessity of people's adherence to the defined rate of exchange. In addition, the

2.3. The 3rd case

The third type in the Umayyad period with the inscribed exchange rate was a fals minted in Gorgan in 107 A.H. /



high inflation if compared to the official one (dirham and dinar). Therefore, the state had no choice but to define a certain amount of fals for the dirham, even if it was large.

year was inscribed (in 97). Here, the readings of the year's inscription were also corrected from (93) to (97). It was affirmed by the literature that handled the events of the time, especially the high economic depression of the area after the death of Alhajaj in 95 A.H. Studying this type is significant because: **a**) It corrected the readings of the date and year of minting. **b**) It documented inscribing the name of a whole area of the type, not only the place of minting, as usual. **c**) It illustrated the reasons for inscribing, significance, and aim of the high rate of exchange.

725 A.D. A type was displayed in Baldwin's auction, figs. (3) [15] with its inscribed exchange rate (60 dirhams).



Figure (3) Shows a fals minted in Gorgan in 107 A.H. on which the exchange rate was inscribed (60 for a dirham); weight: 3.70 gm; size: 21 mm, (<http://www.zeno.ru/showphoto.php?photo=87459>), another model; weight: 3.76 gm; size: ... mm. (<http://www.zeno.ru/showphoto.php?photo=91059>), another model; weight: 4.01 gm; size: 21.86 mm, Stephen Album Rare Coins Sale 11, Sept. 16-17 2011, Lot 15, (<http://www.zeno.ru/showphoto.php?photo=100753>)

<i>The obverse</i>		<i>The reverse</i>	
In a circle of adjacent granule	ستين بد رهم بكل شای جائز sittin bi-dirham bi-kull shay ja'iza	In a circle of adjacent granule	بسم الله ضرب جرجا ن سنة سبع ومئة bisme-allah darb Gergan sanat saba wa meaa
			
Extracting the writings and decorations of a fals, minted in Gergan 107 A.H. (by the author)			

The inscriptions of this type clearly expressed the political and economic conditions of the states of the Islamic Orient of the time, as follows:

2.3.1. Inscriptions of the obverse
They were on three lines, surrounded by a frame of (eroded) adjacent granule (sittin bi-di/ rham bi-kull shay/ ja'iza). It is a significant text that defined the rate of exchange for the dirham (60 fals = 1 dirham). Here, there was a clear relation between the dirham regarding weight (60 kernels) and the equivalent amount of Fals (60 fals) (1 kernel: 1 fals). This affirms what has been previously stated that defining the rate of exchange for the dirham followed certain rules, the most significant of which was linking the number of fals' exchange to the dirham allowed for everything (Bi-kull shay ja'iza) phrase indicated using this defined set for the dirham in all transactions, indicating the juristic opinion about it. The author thought that this number was the official exchange rate for the dirham at the time. Later, it was inscribed on many types of fals and was used as a measure of exchange across the state in the Umayyad and Abbasid periods. It was the first type on which the rate sittin bi-dirham (60 fals for a dirham) was inscribed. On the 2nd and 3rd lines (bi-kull shay/ ja'iza) was inscribed. Shay (شای) was in the Ottoman

2.3.2. Inscriptions of the reverse

They were on four lines surrounded by an eroded frame of adjacent granule (bisme-allah/ darb Gergan/ sanat saba/ wa meaa). It began with bisme-allah (*In the name of Allah*), followed by the place

of minting (Gergan) and the date sanat saba/ wa meaa (107 A.H.). The ruler endeavored to impose the exchange rate of fals upon Gergan province and the subordinate cities and villages and illustrated its

calligraphy that mostly dominated in the period^(d)[16]. This is considered a phonetic reading, where the long middle fatha is written (alef). It was found in the calligraphy of the copy of the Holy Qur'an and Arab papyri [16]. The phrase (sittin bi-di/ rham bi-kull shay/ ja'iza) indicated that the exchange of fals was (60 fals for 1 dirham). It was used for all items with equivalent value to prevent any fraud in other transactions. Hence, the rate of exchange was compulsory for all areas that were subordinate to Gergan. The phrase (bi-kull shay ja'iza) was inscribed after a formal legal opinion to be used in all issues that were limited to dinar and dirham, especially those related to religion, e.g. blood coins and dowry^(c). In addition, the exchange rate of fals for the dirham was related as each fals equaled a kernel of the sixty in the dirham. It is noted that this phrase was not inscribed but on the fals with defined exchange rate (sittin bi-di rham), indicating the approval of scholars to use this number for the dirham (1 dirham (60 kernels) = 60 fals). It was also officially approved.

of minting (Gergan) and the date sanat saba/ wa meaa (107 A.H.). The ruler endeavored to impose the exchange rate of fals upon Gergan province and the subordinate cities and villages and illustrated its

starting year (107 A.H.) to be the start of economic reform he sought to accomplish there. At that time, the ruler of Khurasan was Asad ibn Abdallah who was appointed by his brother Khalid ibn Abdallah the governor of Iraq and Khurasan in 106 A.H. / 724 A.D. There were severe unrests. The former ruler Assem ibn Abdallah was able to do nothing. He was even controlling Marwu and a part of Abarshahr. Asad solved the issue, exterminated unrests, and reunited the whole area till 107 A.H. / 725 A.D. He also worked on reforming the economy and did his best [8]. Therefore, the various forms of Islamic numismatics were minted including fals. He also inscribed the official exchange rate on some

2.4. 4th case

To continue controlling the exchange rate in the states of the Islamic Orient in the Umayyad period, the ruler of Khurasan “Eljoned ibn Abdulrahman

types to bind users and stop their manipulation. One of those types was the type under study that was minted in Gergan. This fals was the first type that was found by the study with the exchange rate (sittin bi-di rham), ensuring that it should be used in all transactions (bi-kull shay ja'iza) to stop fraud in some transactions rather than others. In addition, the place and time of minting were inscribed on the reverse. Thus, people could differentiate what were minted in Gergan before and after Asad ibn Abdallah to identify his accomplishments and to be informed to abide by the defined exchange rate.

Elmory” ordered to mint this type of fals in Marw in 112 A.H./ 730 A.D. and defined its exchange rate, fig. (4).



Figure (4) Shows a fals minted in Marw in 112 A.H. on which the exchange rate was inscribed (60 for a dirham); weight: 2.06 gm; size: 19 mm, (<http://www.zeno.ru/showphoto.php?photo=115780>)

<i>The obverse</i>		<i>The reverse</i>	
In a frame of two circles of two adjacent granule	<p>بسم الله ضرب هذا الفلوس بمرو سنة اثنى عشر ومئة ستين بدرهم bisme-allah doreb haza alfals bi-Marw sanat ethnaty ashar wa-maa sittin bi-dirham</p>	In a frame of two circles of two adjacent granule	<p>بسم الله هذا ما أمر به الأمير الجنييد بن عبد الرحمن جائز بكل شيء bisme-allah haza ma amar beheee alameer Eljoned ibn Abdulrahman ja'iza bi- kull shay</p>

Extracting the writings and decorations of a fals minted in Marw in 112 A.H. (by the author)

2.4.1. Inscriptions of the obverse

They were on four lines in the middle, surrounded by an eroded frame of two borders of small adjacent granule and separated by a dotted border. They were (bisme-allah doreb/ haza alfals bi-Marw sanat/ ethnaty ashar wa-maa/ sittin bi-dirham). On the first line, bisme-allah (*In the name of Allah*) and doreb (*minted*)

2.4.2. Inscriptions of the reverse

They were on four lines in a center surrounded by a three-dots decoration. It was framed by two borders of small adjacent granule, separated by an eroded dotted border with overlapping circles. They were (bisme-allah haza ma/ amar behee alameer Eljoned/ ibn Abdulrahman/ ja'iza bi-kull shay). They began with bisme-allah (*In the name of Allah*) and haza ma (*this is what*) on the first line as an introduction of what shall be mentioned later. On the second line, amar behee alameer Eljoned (*Prince Eljoned ordered*), affirming that he was the ruler and commander of the area ordered to fals and control of this type's exchange. On the third line, the name ibn Abdulrahman was completed to affirm the name who was appointed a ruler by the Caliph "*Hesham ibn Abdulmalek*" after the discharge of "*Ashras ibn Abdullah Elsalamy*" in 111 A.H./ 729 A.D. At that time, the war continued among the Muslims, Turks, and Saghd [8]. Therefore, the economic condit-

2.5. 5th case

In 117 A.H. / 735 A.D., another type was minted in Khurasan of the Islamic Orient in Balkh. Its place was inscribed

was inscribed. It was followed by the type of the currency (fals), the place (Marw) which was a well-known city and the capital of Khurasan at the time, and sanat (*year*). On the third line, the date (112 A.H.) was inscribed, while on the fourth the defined exchange rate was inscribed sittin bi-dirham (*60 fals for a dirham*).

ions in Khurasan were unstable. From the first days, he endeavored to regain control and fight dissidents and attackers from the Turks and other nations. He fought the Turks in Samarkand. After gaining victory, he stayed for a year and fought them in Bukhara [8]. He endeavored to control the internal affairs to ensure unity. He began by controlling the economy by defining the exchange rate of all fals to prevent fraud (60 fals for 1 dirham). Thus, a type was minted in 112 A.H. to be a compulsory one. On the fourth line, ja'iza bi-kull shay (allowed for everything) was inscribed. It is noted that it was inscribed in a parallel position to sittin bi-dirham on the obverse. They were complementary in meaning. They indicated that (1 dirham is exchanged for 60 fals) and that they were allowed in every daily transaction. Consequently, they could not be exploited in certain transactions rather than others.



as (al-Mubaraka), fig. (5-a, b). The following writings were inscribed:



Figure (5-a) Shows a fals minted in al-Mubaraka (Balkh) in 117 A.H. on which the exchange rate was inscribed (60 for a dirham); weight: 1.75 gm; size: ... mm. (<http://www.zeno.ru/showphoto.php?photo=18392>, Nikolaus Schindel, fig. 6)



Figure (5-b) Shows a fals minted in al-Mubaraka (Balkh) in 117 A.H. on which the exchange rate was inscribed (60 for a dirham); weight: 1.57 gm; size: 15 mm, Morton & Eden, Auction 76, 14 December 2015, Lot number: 243, (<http://www.zeno.ru/showphoto.php?photo=164281>)

<i>The obverse</i>		<i>The reverse</i>	
In a frame of two circles	بِسْمِ اللَّهِ ضَرَبَ بِالْمِبْرَكَةِ سِتِّينَ بِدِرْهَمٍ bisme-allah doreb bil-Mubaraka sittin bi-dirham	A center in a circle	An inscription of a horseman on the back of his horse
		Border	(ضرب) سنة سبع عشر (ومئة) (doreb) sanat sab ash (wa-maa)
			

Extracting the writings and decorations of a fals minted in al-Mubaraka in 117 A.H. (by the author)

2.5.1. Inscriptions of the obverse

They were central in a frame of two overlapping circles separated by a border including a set of overlapping circles, one of which was clear and the others were eroded. They were on three lines, as follows: (bisme-allah /doreb bil-Mubaraka / sittin bi-dirham). They began on the first line with bisme-allah (*In the name of Allah*). On the second line, the city of minting was inscribed doreb bil-Mubaraka (*minted in al-Mubaraka*) that was used for Balkh. At that time, Khurasan was torn by unrests. From the death of Eljoned ibn Abdulrahman in 116 A.H. / 734 A.D. and the appointing of Assem ibn Abdullag ibn Yazeed as a ruler by “Hesham ibn Abdulmalek”, there were a lot of unrests in Khurasan for his oppressor rule. For example, “Elhareth ibn Soraeg” revolted against him and seized Balkh, Eljozjan, Elfareab, Eltalkan, and Marw where he besieged Assem [8]. The Caliph discharged him and made it under

Khaled ibn Abdallah to appoint his brother Asad ibn Abdallah as a ruler in 117 A.H. [8]. Asad could exterminate unrests and get rid of “Elhareth ibn Soraeg” from Balkh. He even made it the capital in 118 A.H./ 736 A.D. and moved the divans there [8]. Then, he minted this type of fals in the late 117 A.H. and inscribed the city al-Mubaraka as a memorial of its re-occupation. This title was greatly significant as it documented the victory. The same title was used for the city when it was constructed in 107 A.H. / 725 A.D. by Asad ibn Abdallah. According to Eltabry [8], Asad ibn Abdallah moved the people of Elbroqan to Balkh and allocated a house to every one of them. Barmak aba Khaled ibn Barmak was in charge of the city’s construction. Abu El-boraed wrote poetry for this even. He wrote, “That al-Mubaraka you fortified*** was a shelter for the needy and afraid”.

حيث ذكر "الطبري" أنه في سنة 107هـ نقل "أسد بن عبد الله" من كان بالبروقان إلى بلخ، فأقطع كل من كان له بالبروقان مسكناً مسكنه، ومن لم يكن له مسكناً أقطعه مسكناً، وأرد أن ينزلهم على الأخماس، فقيل له: إنهم يتعصبون فخلط بينهم، وكان قسم عمارة مدينة بلخ الفعلة كل كورة على قدر خراجها، وولى بناء مدينة بلخ برمك أبا خالد بن برمك، فقال أبو البريد في ببيان أسد مدينة بلخ: (شعفت فؤادك فالهوى لك شاغف * * رئم على طفل بحوامل عاطف. ترعى البرير بجاني متهدل * * ريان لا يعيشو إليه آلف. بمحاضر من منحى عطفت له * * بقر ترجح زانهن روادف. إن المباركة التي أحصنتها * * عصم الذليل بها وقر الخائف. فأراك فيها ما رأى من صالح * * فتحا وأبواب السماء رواعف. فمضى لك الإسم الذى يرضى به * * عنك البصير بما نويت اللأطف. يا خير ملك ساس أمر رعية * * إنى على صدق اليمين لحالف. الله آمنها بصنعك بعدما * * كانت قلوب خوفهن رواجف).

Balkh was entitled al-Mubaraka that was used at the time when he constructed it in 107 A.H. as a memorial and bringing good news of security and welfare. On the third line, sittin bi-dirham (sixty 2.5.2. Inscriptions of the reverse

They were in a center and a border. The center was in a circle, where a horseman on the back of a horse moving to the right was inscribed. According to Schindel [9], it was an inscription of a lion moving to the right. By accurately extracting the inscription and reviewing another model of this type [17], it was found to be an inscription of a horse ridden by a horseman. It is noted that there was a large space between the horseman's position and the neck of the horse, indicating that there was something before him. In addition, moving to the right arose a question. Two interpretations could be suggested according to the sequence of historical events. First, the scene might represent the prince "Asad ibn Abdallah" who re-occupied Balkh and got rid of its ruler; a symbol of knighthood and heroism.

2.6. 6th case

The sixth type of fals was minted in the Umayyad period but with no date or place. It was proved to be minted in that era by comparing its calligraphy with other types that dated back to the same era. In addition, the method of inscription was largely similar. On the samples, under study, their rate of exchange for the dirham was inscribed. That is, those in charge of minting such types did not inscribe the city of minting in order to be used in the various

for a dirham) was inscribed to define the official rate of exchange for the dirham, in an attempt to reform the economic conditions.



Second, the inscription might be of a postman who brought good news to the ruler of Iraq and the Caliph of controlling Balkh and the surrounding areas. This interpreted the space between the horseman's position and the neck of the horse representing a container where messages were kept. Additionally, the tail of the horse was almost cut. It was the shape of the tail used for the post. The inscriptions of the border were between two circles where the space between them was divided by three dots into five parts (doreb/ sanat/ sab ash/ wa-maa) (minted in 117). Rust deteriorated two parts (doreb and wa-maa).

cities and provinces to fix the fals' rate of exchange for the dirham to stop fraud. It was an attempt to educate people of the fals' rate of exchange in order not to be exploited. The date of minting was not also inscribed to be easily used in all historical periods and not to be associated with the reign of a prince or ruler. Hence, it was a documentary proof to be used anytime and anywhere. Some of these types are displayed, as follows:

1) A type of fals with no place or date of minting, but its rate of exchange was inscribed. Zeno website published many numbered samples of this type,

e.g. (143186, 126143, and 152570), fig. (6-a), their inscriptions were as follows:



Figure (6-a) Shows a fals on which the exchange rate (60 for a dirham) only was inscribed but no place or date; weight: 3.27 gm; size: 19 mm, (<http://www.zeno.ru/showphoto.php?photo=143186>), another model; weight: 3.2 gm; size: 20 mm. (<http://www.zeno.ru/showphoto.php?photo=126143&cat=all&ppuser=2&sl=c>)

<i>The obverse</i>		<i>The reverse</i>	
In a circle of adjacent granule	<p>لا اله الا ا الله نعم القا در الله و ستين بدرهم la 'illah 'illa allah nem alqader allah wsittin bi- dirham</p>	In a frame of two circles of adjacent granule	<p>بسم الله محمد ر سول الله bisme-allah muhammad rsul allah</p>
<p>Extracting the writings and decorations of a fals with no place or date of minting but the rate of exchange was inscribed (sittin bi-dirham) (by the author)</p>			

2.6.1. Inscriptions of the obverse

They were centrally inscribed in a frame of adjacent granule. They were on four lines, as follows (la 'illah 'illa a/llah nem alqa/ der allah w/sittin bi-dirham). On the first line and the first part of the second, the shahadah (la 'illah 'illa allah) was inscribed (*the declaration that one bears witness that there is no deity except Allah*) was inscribed. On the second and the beginning of the third lines, nem alqa/ der allah (*Allah is All-Capable*) was inscribed, indicating a desire of the person in

charge to refer to the great capability of Allah. It also indicated some unrest in the place and time of minting and that the ruler wanted to reassure Allah's capability to accomplish right and destiny on the apostates. The first part of the shahadah was on the obverse and (*muhammad rsul allah*) was on the reverse. On the fourth line, a letter and the exchange rate w sittin bi-dirham (and sixty for a dirham) were inscribed to fix it.

2.6.2. Inscriptions of the reverse

They were in a circular frame of adjacent granule on three lines, as follows: (*bisme-allah/ muhammad r/sul allah*). This affirmed the message they wanted to transfer by informing people of the exchange rate to control the state's internal economy. 2) Another model of the fals

where the place and date of minting were not inscribed, but its rate of exchange was. It was published by Zeno under No. (71836), fig. (6-b), its inscriptions were as follows:



Figure (6-b) Shows a fals on which the exchange rate (60 for a dirham) only was inscribed but no place or date; weight: 1.54 gm; size: 19.5 mm, (<http://www.zeno.ru/showphoto.php?photo=71836>; VLADIMIR N. NASTICH, b.)

<i>The obverse</i>		<i>The reverse</i>	
In a circle	سستين بدرهم sittin bi-dirham	In a circle	جايز له بكل شيء jayiz lah bikull shay'
Extracting the writings and decorations of a fals with no place or date of minting but the rate of exchange was inscribed (sittin bi-dirham) (by the author)			

2.6.3. Inscriptions of the obverse

They were in a circular frame on two lines (sittin/ bi-dirham). In minting this type, those in charge attempted to highlight the key issue to be disseminated, i.e. its

2.6.4. Inscriptions of the reverse



They were central in a circular frame of two lines (jayiz lah/ bikull shay') (*allowed for everything*). It affirmed the text on the obverse to define the exchange rate and that it was allowed for every equivalent item. It was not rejected in transactions because it was an official

rate of exchange for the dirham. It was inscribed on the whole obverse.

subsidiary currency with a fixed exchange rate. 3) The third type of these fals is shown in fig. (6-c). While Stephen Album exhibited two samples [18, 19], Baldwin's exhibited one [20], and The New York Sale exhibited the fourth [21]. Its inscriptions were as follows:



Figure (6-c) Shows a fals on which the exchange rate (60 for a dirham) only was inscribed but no place or date; weight: 1.25 gm; size: 15 mm, Baldwin's Auctions Ltd, Islamic Coin Auction.17, 26.October.2010, lot.182, (<http://www.acsearch.info/search.html?id=873631>), a second model; weight: 1.35 gm; size: ... mm, Stephen Album, Auction 19, 15. May 2014, Lot. 337, (<http://www.acsearch.info/search.html?id=1966876>), a third model; weight: 1.15 gm; size: ... mm, Stephen Album, Auction 21, 15. January 2015, Lot. 173, (<http://www.acsearch.info/search.html?id=2329525>), a fourth model; weight: 1.25 gm; size: 15 mm, The New York Sale, Auction. XXVIII, 4. January 2012, Lot. 1207, (<http://www.acsearch.info/search.html?id=1179206>).

<i>The obverse</i>		<i>The reverse</i>	
In a circle	سستين بدرهم sittin bi-dirham	In a circle	جائز jayiz
			
Extracting the writings and decorations of a fals with no place or date of minting but the rate of exchange was inscribed (sittin bi-dirham) (by the author)			

2.6.5. Inscriptions of the obverse

They were in a circular frame on two lines (sittin/ bi-dirham). It is similar to the previous type in inscribing the exchange rate on the whole obverse.

2.6.6. Inscriptions of the reverse

They were central in a circular frame on one line (jayiz) to indicate that it was allowed in all transactions and should be dealt with because it was officially minted. It is noted that the phrases were accurately inscribed. Only the official exchange rate was inscribed (sittin bi-dirham) (*sixty for a dirham*). On the reverse, jayiz was inscribed to affirm the media role of fals and the vital role in controlling the market of exchange at the time. Additionally, its general shape

to the previous type in inscribing the exchange rate on the whole obverse.

affirmed that those in charge of the internal market minted this fals as a document so that people remember the official exchange rate. It was a strong proof that benefited in the financial transactions. No other texts were inscribed because controlling the exchange rate was the key issue to mint this type. Furthermore, the place and time were not minted to prove that it might be used in many cities and provinces without being limited to a time.

3. Results

It could be concluded that the exchange rate of the fals that dated back to the Umayyad period was officially defined and fixed. In addition, the internal economic state was continually supervised by minting types of fals with a fixed exchange rate for the dirham from time to time, especially in periods of unrest and chaos. Hence, the first step of economic reform was fixing the exchange rate. Fals were significant as a subsidiary currency and a fast media. They were also used as an official document to be used in need to ask for their rights. Consequently, the following results were concluded: **1)** The economy of the Islamic state was well supervised. Rulers and leaders were interested in controlling the exchange rate and market. They were also greatly interested in the citizens. Such interest was clear in controlling the fals' exchange rate although they were subsidiary with low economic value. From time to time, they minted various types with a fixed exchange rate. **2)** The official exchange rate in the Umayyad period was (sixty fals for a dirham). They did not approve any exaggeration was not officially approved. However, it was justified sometimes and was related to the official number defined in most provinces. **3)** Probably, the fals' exchange rate was not randomly defined. By comparing the numbers inscribed on the fals, under the study, it was noted that they

were related to the official dirham. That is a dirham equaled 60 kernels and the exchange rate of the fals under the study was (120, 360, 60) (2: 6: 1). While in the first time, it was 2 fals for a kernel of silver, it was 6 fals in the second and 1 in the last. Accordingly, the number of fals for a certain weight of dirham was fixed. If there were difference, they were attributed to the economic state and supply and demand. **4)** It corrected what was mentioned by specialists regarding the exchange rate of fals for the dirham. For example, "Shama" mentioned that fals' exchange rate greatly varied. They were 48, 32, or 24 for a dirham [22]. However, if they varied sometimes, this was not the rule. Some pieces of evidence from the Umayyad period showed the interest of the state in defining an exchange rate that was inscribed on some types. **5)** It corrected the readings of fals types published by Zeno website under no. 47583 that was registered to be minted in Balkh in 93 A.H. and published by Schindel. The accurate extraction showed that it was minted in Baliekh in 97. **6)** It documented inscribing a whole area on coins (Baliekh) for the first time, to the author's knowledge. **7)** It corrected the description of Schindel [9] of a type that was also published in Morton & Eden auction. It was described to be of a lion moving to the right, but it was found to be of a horse ridden by a horseman.

4. Conclusion

To conclude, the Umayyad state's interest in fals was similar to that of dinars and dirhams. It made strict rules that defined their exchange rate for the dirham. Additionally, their exchange rate was accurately measured (60 كحلبة kernels). Accordingly, the exchange rate of dirham for fals was (60 fals for a dirham), but it varied according to the economic or political conditions of the state.

Endnotes

(a) The Byzantine financial system was based on the gold coin (solidus) of (4.48 gm). Enstasious divided it into a half, known as semissis; a third, known as termissis and a nummus that equaled (1: 72) solidus...etc. Accord-

ingly, copper coins were issued. Money is used for a bag that holds 40 (nummi). In addition, the value of coins was defined according to the letters written on the reverse indicating numbers...etc., as follows: M= 40

nummi (1 fals), K= 20 nummi (1/5 fals), I= 10 nummi, and E= 5 nummi (1/8 fals).

- (b) The Arabs called the Mesopotamia the island because the Upper Tigris and Euphrates were rich in flat lands. It was divided into three tribes, namely Rabiaa, Modar, and Bakr. They landed there before Islam that was ruled by the Sasanians. If we consulted the map, it shows that the Tigris and Euphrates passed through a large area. Several sources poured in them from the north and south. For example, Alhermas that was the branch of Khabur river poured in them. Therefore, the borders of these three tribes were marked by water. While the whole area of Bakr was watered by the Tigris, Modar was watered by a branch of the Euphrates, i.e. Baleikh. Rabiaa was watered by the

large Khabur and Alhermas that were branches to the east of the Tigris.

- (c) It was reported that Baliekh was a province. In the middle of the second millennium B.C., Elhoreoun established an important location in Northern Syria, especially in Baliekh and Khabour of the Euphrates. They made Washwakany village their capital.
- (d) This writing was found in the Islamic papyri of the first century. Most of them dated back to the last 10 years of the 1st century. It could be noted that some words in such papyri were in the Ottoman calligraphy but are not used any more, e.g. shae (thing) written as shay.
- (e) This opinion was adopted by Prof. Muhammad Abdulsattar Othman, prof. of Islamic Archaeology, Sohag Univ. in a discussion on the issue.

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