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Round Table

Transfers of precious metals and their consequences

Madrid - Casa de Velázquez - 16-17 May 2013

16 MAY

9h00-9h15

OUVERTURE

JEAN-PIERRE ÉTIENVRE

Directeur de la Casa de Velázquez

Introduction

GEORGES DEPEYROT

CNRS Paris

9h15-13h THE FIRST INFLOW

Chairman **DENNIS FLYNN**

University of the Pacific California, USA

JUAN CASTANEDA (University of Buckingham, UK)

New estimates of the stock of gold (1493-2011)

The main task is to estimate the total above ground stock of gold since the Early Modern era. To do that, the starting point of the estimation will be 1492, as the discovery of silver and gold in South America in 15th c. was accompanied by a well-documented flux of metals from the New World to Europe, which required formal record keeping. However, the estimate of the stock of gold at 1492 is still rather uncertain and has deserved little attention in the academia. A review and a critique of the available estimates is made as well as new estimations are calculated by extracting the information provided by secondary sources. Given the unavoidable high degree of uncertainty surrounding these analyses, interval estimation will be proposed. Further applications of these new estimates are quite many and diverse: (1) There is a non negligible discrepancy between our estimates and the World Gold Council's (WGC) over-estimation of the current above ground stock of gold. As a result, there may also be significant implications on the gold market, and, in particular, on the current and the expected price of gold. Moreover, (2) the joint evolution of the world stock of gold and world production can be used to study the underlying inflationary or deflationary bias of both the so-called classical gold standard years (1870s-1914), and of an hypothetical "gold anchor" should it be adopted as a monetary policy rule in the present time.

ALLISON MARGARET BIGELOW (Omohundro Institute of Early American History and Culture at the College of William & Mary, USA)
"Lost in Translation: Knowledge Transfers and Cultural Divergences in Early Modern Spanish and English Silver Treatises"

It is now well-known that the favorable exchange rates that early modern silver traders commanded in Chinese markets led the Spanish empire to restructure its American viceroyalties and establish outposts in sites like Manila to foment the mining, minting, and merchanting of silver, the standardized currency of an empire that transported American silver to Asian markets in exchange for goods and peoples bought and sold in Europe and Africa. Less studied, however, are the technological innovations that underwrote the global transfer of silver in this period, namely the mid-sixteenth century New Spanish development of amalgamating silver with chemically-related quicksilver, and the accommodations of these technologies to the colder ambient temperatures and mineralogies of South America, allowing every variety of silver, including deep- and surface-level ores mixed with sulfur, copper, and chlorides, to be refined on a cost-effective, industrial scale for the first time in recorded history. This paper proposes to compare some of the literatures on silver mining and refining in the Hapsburg and Anglo archives. Specifically, by comparing the language of Spanish and English metallurgical treatises we can see how different attitudes about the possibilities of "attractive vertues" of reagents like cinnabar and mercury to "royall metals" contributed to the different economic programs and currencies of imperial Spain and England. English writers like Plattes explained the union of mercury and silver with verbs like "rose up" and "fell down," while Spanish writers like Barba glossed this "friendly" amalgamation in the terms of profane desire: "el azogue abrazará la plata."

CLAUDIA JEFFERIES (City University London, UK)
American silver production, copper coinage and the composition of sovereign credit in 17-Century Spain.

This paper explores the implications of the changes in production trends of American silver and the ways in which they affected trade circuits, the composition of sovereign credit and overall monetary circulation in 17^{th}- century Castile. Recent secondary literature on the topic of Spanish sovereign "debt" and credit will be taken into consideration, and the analysis of relevant time series will be undertaken, comparing number of statistical databases on coinage, taxation and production of precious metals in the New World. Special focus will be placed on the role of copper coins as an imperfect substitute of the silver element, which was missing from trade and credit circuits in 17^{th}- Century Spain. The diversion of silver into alternative trade circuits during the first half of the 17^{th}- Century will be studied and its repercussions on the Crown's finances will be assessed in order to contribute to the explanation of the rationale behind the introduction of pure copper coins in Castile.

MICHAEL MÄRCHER, HELLE HORSNÆS (Copenhaguen Museum, Denmark)
Coins found on Bornholm and streams of precious metals

More than 10,000 coins from 200-1900 AD found on the Danish isle Bornholm in the Baltic Sea are registered at The Royal Collection of Coins and Medals, The National

Museum of Denmark, Copenhagen. Coins were never minted on Bornholm; they were all brought to the island through trade, gifts, plunder, and other types of circulation. This paper is a preliminary study of the coins' metals (primarily silver), chronology, and geographical distribution (mints/countries/regions/routes) with focus on different streams of precious metals in the form of coins to Bornholm through almost 2,000 years. Amongst the coins and themes are Roman solidi and denarii from the 1^{st}-5^{th} centuries, 3irhams from the 8-10^{th} centuries, German and German silver pennies from the 10-11^{th} centuries, many different types of medieval silver coins from all areas around the Baltic Sea, German gold coins from the 15-16^{th} centuries, surprisingly few thalers from the 16-17^{th} centuries, and Norwegian silver coins from the 17-18^{th} centuries.

CLAUDIO MARSILIO (Gabinete de História Económica e Social, Universidade Técnica de Lisboa, Portugal)

Lisbon, London or Genoa? Three alternative destinations for the Spanish Silver of Philip IV (1627-50)

During the XVI^{th} – $XVII^{th}$ centuries the Genoese bankers controlled the credit market of the Spanish Empire borrowing money to the Spanish Crown (*asientos*) and offering many other financial services all around Europe. In the $XVII^{th}$ Century one of the crucial topics was the bullion trade. The Genoese operators and their agents in Madrid were paid back in silver (billion and coins) and the precious metal was delivered – since the XVI^{th} century - from Barcelona to the port of Genoa. In 1630 Spain signed a peace treaty with England and this political agreement offered an unexpected chance to the Genoese and the Portuguese bankers. In fact, the English Royal Mint bought a massive quantity of silver paying back the *asentistas* with bills of exchange on Antwerp where the Spanish *Hacienda Real* was paying the troops. New evidences from the *Casa da Moeda* of Lisbon let us also suppose that the bankers of Philip IV were involved in another lucrative silver trade linked with the Portuguese monetary market. The first half of the $XVII^{th}$ Century is crucial for understanding the composite European monetary market and these three centres - Lisbon, London and Genoa - must be considered fundamental for the flow of silver in the European financial market.

14h15-19h the 19th-20TH c.

Chairman **AKINOBU KORODA**

University of Tokyo, Japan

CAROLYN N. BILTOFT (Max Planck Institute for the Study of Societies, Germany)

All that was Solid: the Competing World Views of Metalism and the Credit Theory of Money after 1850

This paper explores the ways in which the late nineteenth century marked a turning point in the functioning of the international monetary system and also in theoretical conceptions of how the system should operate. It looks at the international flow of specie in the period in comparison to two reigning theories of money; namely, that of Metalism and the emerging Credit Theory of Money. The paper suggests that these theories implied both divergent understandings of the mechanical role of money in the global economy, and equally different world views with respect to how economies should function, from what sources value and profit derived and finally the role that politics should play in economic affairs. Ultimately, the paper argues that the Credit Theory of Money signaled a new more informational (and more tolerant of debt) phase of globalization (1850 to 1914) that was disrupting the structures of the international economy built on the flow and transfer of hard currency from 1600 forward. The paper will reexamine the literature on the circulation of specie against a deep primary-source reading of relevant theories of money from Adam Smith to Karl Marx and finally Henry Dunning Macleod and Alfred Mitchell-Innis. It thus concludes that both the transfer of currency, and also the transformation of ideas about money itself reflected and effected significant shifts in the infrastructures of global capitalism.

JÜRGEN NAUTZ (University of Vienna, Austria)
Austro-Hungarian state(s) and the issuing bank in preparation of the currency reform, the introduction of the gold standard from the 1870s to the outbreak of World War I.

In this context the markets for gold and silver where under close monitoring of the interested public and private institutions and science. The development of the markets and the implication for the monetary strategy was intensively discussed. Additionally specific developments on the bullion markets initiated the decisive phase of the planning of currency reform in Austria-Hungary.

EMMANUEL PRUNAUX (Mission historique de la Banque de France, France)
Les transports de fonds en France au début du 19ème siècle

Après une décennie de troubles révolutionnaires, les paiements de place à place s'effectuent pour une part non négligeable en espèces, principalement des pièces en argent de 5 francs : la monnaie la plus utilisée dans les transactions commerciales. De facto, une partie des espèces métalliques en circulation se trouve continuellement « *reléguée dans les paniers des Messageries* », ce qui aggrave le déficit structurel dont souffre l'économie française. Cette situation est amplifiée de façon saisonnière par le flux et le reflux des espèces entre Paris et la province. Les transports de fonds sont le monopole des Messageries nationales et des Messageries du Rhône, qui subissent néanmoins la concurrence d'entrepreneurs locaux. Le coût et la durée de transport des espèces représentent une charge non négligeable pour les négociants. Pour ses opérations en province, la Banque de France dispose d'un contrat pluriannuel avec les deux principales entreprises de messageries sur la base d'un tarif unique au kilomètre. La composition des versements effectués par les correspondants entre 1800 et 1820 permet d'étudier l'impact des frais de transports sur l'usage des monnaies métalliques pour les paiements à longue distance.

RITA MARTINS DE SOUSA (Gabinete de História Económica e Social - Instituto Superior de Economia e Gestão, Universidade Técnica de Lisboa, Posrtugal)
Transfers of precious metals and money supply – Portugal 16th -19th centuries

In the long run, Portugal was a European hub for the transfers of precious metals. Between the sixteenth and nineteenth centuries, regions in Africa and Brazil had provided precious metals to the Portuguese economy and after they were exported to Europe and Asia. However, these metals, in addition to being re-exported, also remained in the Portuguese economy with consequences on their degree of monetization. In this paper we intend to estimate imports of precious metals, to determine the inputs of these metals at the Lisbon Mint House and to calculate their impact on money supply.

17 MAY

9h30-13h THE ORIENT

Chairman **JÜRGEN NAUTZ**
University of Vienna, Austria

DENNIS O. FLYNN (University of the Pacific, California, USA)
A Restatement of the Price Theory of Moneys

Conventional monetary theory is an obstacle to understanding monetary history for at least three reasons: (1) diverse monetary substances are summed together (i.e adding apples and oranges), (2) monetary aggregates are mis-conceptualized in terms of nation-state borders, and (3) excessive emphasis is placed upon *quantities* of moneys (so-called Quantity Theories of Money) rather than *prices* of individual moneys. My Unified Theory of Prices is "unified" in the sense that each individual money is treated in exactly the same manner as non-monetary goods. One central problem has perplexed monetary theorists for over a century: how can one speak of the "price" of a particular money in models which depict prices in terms of the money itself? The Price Theory of Moneys solves this problem by distinguishing between tangible medium-of-exchange/store-of-value moneys vis-à-vis intangible unit-of-account moneys in terms of which prices of tangible moneys can be expressed. European monetary history offers numerous examples of intangible unit-of-account moneys. These so-called "imaginary moneys" operated through a tangible "link money" – the tangible Rixdollar – a perfect example of which contained precisely 25.7 grams of pure silver. The genius of this European accounting convention is that all transactions could be represented in an accounting system that essentially expressed everything in terms of grams of pure silver, irrespective of the fact that hundreds of diverse tangible monetary items were exchanged in reality. No matter how brilliant this simplified accounting scheme, however, such link-unit-of-account moneys (LUAMs) are unsuitable for expressing prices of media-of-exchange moneys. An intangible ratio-unit-of-account money (RUAM) is needed for this purpose.

ALEJANDRA IRIGOIN (London School of Economics, UK)
A Trojan Horse in Daoguang China? Explaining the flows of silver in and out of China

This paper offers a revisionist view of the interpretations of China's particular dependence on imported silver. It also explores the role of silver and of opium. Section one surveys the available interpretations for the silverization and de-silverization of China. It discusses the 'supply' and 'demand' side analysis, which are current in the most recent literature. Section two offers evidence for the weakness of the 'supply side 'views and argues that the problem during Daoguang reign was the *quality* not the quantity of the silver available in the world economy increasingly after the 1820s. Section three challenges the established view of China as performing in a bi-metallic system. Since China did not coin silver, and relied on imported foreign coins, the cessation of coinage of the Spanish American peso posed a small but critical theoretical problem. Section four presents evidence for the variation in the exchange rate of the Spanish American silver peso in China after the 1790s and increasingly in the 1800s, with other coins first and, more importantly, with silver sycee despite its lower intrinsic value. This commerce became a sizable source of gains for traders in coins and in silver more generally. Hence section five revisits the conventional explanation for opium imports as causing the outflow of silver, rather the other way round. It suggests that the flight of silver was in fact *the cause* not the consequence of opium imports. This is not a novelty as, it will be shown, High Chinese officials at the time were clearly aware of the primary causes and direction of the silver flows. Finally some conclusions are offered.

AKINOBU KURODA (University of Tokyo, Japan)
What was silver tael system? : a mistake of China as silver 'standard' country

From the viewpoint of reformists in early 20th China their country should have been with a monetarysystem of silver standard. Silver *tael* (or *liang*) was a unit of silver by weight which was widely used for private transactions and official taxations. However, most of the units with the name of *tael* were actually imaginary ones which did not directly reflect any real silver ingots or bar. Historically silver became a monetary measure in China through the process of gradually replacing silk from 10th century to 15th century. Imaginary silver *tael* basically worked as a unit forbook keeping shared by particular traders, not circulated simply according to intrinsic value. That is why the depreciation of silver in late 19th century did not bring any serious disturbances to Chinese business, besides the payments of foreign debt including indemnity.

RILA MUKHERJEE (Institut de Chandernagor, India)
An Early Medieval Metal Corridor: Silver, Bengal and Bagan, 7th - 13th centuries

One of the more intriguing aspects of the monetary history of early medieval Bengal is the almost total disappearance of silver coming in from Bagan (a medieval kingdom in present Myanmar) from the 9th century by the traditional land routes into Bengal. This has received mentions but not ben adequately studied by scholars. My presentation investigates firstly the different historical developments in the two kingdoms and proposes reasons as to why silver ceased coming into Bengal. The second axis of my presentation looks at developments in the early medieval Indian Ocean world, more particularly into the Bay of Bengal, and discusses the consequences of the diversion of silver transfers in both Bengal and Bagan. The presentation gives us an idea of the role of precious metals in the early Indian Ocean economy.

MARINA KOVALCHUK (Far Eastern Federal University, Vladivostok, Russia)
Japan. Adoption of the gold standard: economic problem from a historical point of view

In the end of 19th century Japan decided to join the Gold standard. What prompted Japan to make this decision? Many researchers emphasize that Japan did it by the way of example, following the Germany's decision after Franco-Prussian War (1870-1871): to extract reparations, to facilitate a shift to Gold standard, as Japan adopted the Gold standard soon after Sino-Japanese War (1894-95). For others Japan moving to gold was the mean to reduce borrowing costs on the Western financial markets and also a way to attract foreign loans to Japan. The presented paper examines whether the economic or political reasons played the major role in adoption of golden standard in Japan. The research was conducted based on the analysis of such documents as "The Final Report" which was submitted by the Coinage Investigation Commission to Japanese government in 1895, "The report on the Adoption of Gold Standard in Japan by minister of finance Matsukata Masayoshi" (1899) and other historical documents providing us with information on Japanese policy making in geopolitical and domestic political context of late nineteenth century.

14h15-19h THE ORIENT (2) - THE 20TH C.

Chairwoman **ALEJANDRA IRIGOIN**
London School of Economics

ELISABETH KASKE (Carnegie Mellon University, USA)
Silver Bullion and Government Finance in 19th Century China

Qing China's government finance was based on the shipment of funds (largely silver bullion) between a system of multiple treasury vaults on various levels of the administration. Although the share of government revenue in the Chinese economy is thought to have been rather humble, government spending made up a considerable part of the movements of silver bullion in the empire. This is shown by the fact that the ascendency of the Shanxi remittance banks as the major "traditional" banks in China, depended on remittance services for the Qing government, once the latter decided to transition from bullion shipment to remittance after the 1860s. In 1901, Joseph Edkins (1901) argued that government spending was a crucial factor in maintaining a high demand for silver in China, thus keeping the silver price high at a time when it was falling in Europe. This paper looks at the expansion and structural change of government revenue and expenditure after the 1860s, the transition to bank remittance, and emergence of silver imports through foreign loans. Specific cases will be addressed to tentatively assess if and how government policies significantly impacted silver flows and silver prices.

CATHERINE BREGIANNI (Senior Researcher, Academy of Athens and MSH Paris; Scientific Collaborator of the Bank of Greece)
Greece's Gold transfer during the Interwar and the War period; two stories and a myth

The paper will examine the transfer abroad of the Bank of Greece's gold, which represented the reserves of the State. Also, it will be examined via archival evidence the transfer of the National's Bank gold reserves by the Axis forces. Both cases are related with the historical conjuncture and in general with the national history of the country: 1. retain of the National's Bank gold reserves by the Axis forces in 1941. 2. transfer of State's gold in 1941; just before Greece's occupation by the Nazi, King George II and the Greek government left the country by maritime itinerary, taking the Greek gold with the them in order to prevent its retain by the Axis forces. The Greek gold was stoked in South Africa, while the Greek government resided in London. The paper aims to investigate also the «destiny» of the Greek gold reserves after World War II as far as little –if any- archival evidence exists for this matter. Furthermore, in the framework of the paper will be examined the recent usage of the Bank of Greece's Gold transfer during the World War II by the Greek Mass Media; an invented story persuaded the public opinion that Gold remained in Greece and that was forfeited by the Nazis during the occupation. This interpretation consist an example for the ideological use of history.

EKETERINA SVIRINA (Financial University under the Government of the Russian Federation, Moscow, Russia)
Russian metallic currency of the first half of the 19th century: introductory analytical characteristics

Russian monetary system at the beginning of the 19th century, being subject to massive war expenses and plagued by inconsistent political decisions and wide range of economic shocks, could be characterized, at first glance, as unstable and chaotic. There are social-political and economic reasons that explain the slow evolution of the Russian monetary system, but also other "fundamental" factors such as cultural influence of Europe and Asia. For instance, in the Russian empire the European way of minting new types of coins each time a new emperor was taking the reign was accompanied by a low propensity of coins to assemble, which is typical to Chinese coinage system. The question is then whether this mix of influences had an overall positive or negative effect on the development of the Russian monetary system. The aim of the paper is to identify European and Asian elements of influences and determine whether the combination was beneficial or detrimental for Russia and if the combination gave birth to a specific Russian way of monetary system operation, in particular the metallic currency circulation.

VLADIMIR BAKHTIN (Financial University under the Government of the Russian Federation,, Moscow, Russia)

Revolution and Civil War in Russia and consequences

By the beginning of World War I Russia possessed huge gold reserves and boasted fast able currency pegged to gold. However during the War it was compelled to transfer a considerable portion of its reserves abroad in order to get the borrowings necessary for covering military expenses. As a result the actual amount of gold with in the country decreased dramatically further destabilizing the central imperial authority. The fall of the Tsar power that followed consequently led to disintegration of the single ruble zone and issuing of separate currencies in different parts of the country. The author attempts to analyze the situation in economy and monetary circulation in the period of 1914 (beginning of World War I) – 1921 (initiation of a new monetary reform by the Soviet authorities) in correlation with gold reserves.

ALLA SHEPTUN (Financial University under the Government of the Russian Federation, Moscow, Russia)

Gold inflows and outflows in 19th century Russia during its transition to the gold standard

Gold transfers in 19th century Russia were influenced by the need to acquire sufficient gold reserves for the transition from the silver standard, established in1839, to the gold standard which was introduced in 1895-97. The main internal channel for acquiring gold reserves was gold mining, which started in the middle of the 18th century and grew steadily during the following century. The major part of the gold supply came from the Ural region and later from Siberia and the Far East. In 1840-50 Russia produced 40% of world gold production, but this rate went down soon after the discovery of gold and the following "gold rush" in the USA (1848), in Canada (1851), in Australia (1851) and other places. There were two famous Russian "gold rushes" in Siberia: first, in Western Siberia (1822-1920) and second, in the Lena Goldfields (1844-61). A consequence of the expansion of gold extraction was rapid economic development of the Siberian region. The inflow of gold was also provided through external channels: foreign trade (mainly export of grain) and foreign borrowings. The volume of Russian exports was dependent on "His Majesty the Harvest" and on the situation on the international markets. Inflows from foreign borrowings were significant, but they were accompanied by some gold outflows because Russia took out loans against pledges in gold. Gold outflows during this period occurred also for political reasons. The Russo-Turkish war 1878-79 caused a reduction in the gold reserves of the State bank. Despite some circumstances, Russian ministers of finance took all measures possible to ensure an accumulation of gold reserves sufficient for the transition to a gold standard.

CONCLUSION

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