

# The Treasure Trove of the Indies

By Pedro Schwartz, 'Rafael del Pino Professor' at Camilo José Cela University



## The gold and silver industry

I have mentioned Seville, where the overseeing body, 'La Casa de la Contratación', was established in 1503. All the traffic with the Indies was monopolised by this beautiful city. In 1717, the monopoly passed to Cadiz. When visiting this magnificent port, one can still see the slender towers on top of houses from where signals were exchanged with the arriving 'flota'. Foreign merchants could not travel to the Indies but concentrated in the monopolising city. The subjects of the King of Spain outside Castile, Andalusia and Navarre were forbidden to travel to the Americas. Even the Castilians wishing to cross the pond were carefully vetted: for one, Cervantes (author of *Don Quixote*) applied to go to America and was rejected, perhaps because he had spent some time in prison as a tax official under suspicion. It was not until King Charles III freed trade within his possessions in 1778 that the dwellers in the Kingdom of Aragon could trade with the Indies.

**The world of money and finance was transformed by the discovery of America, as that Continent unjustly came to be called, or the Indies, as the Castilians named it. A flood of gold and silver washed over Europe, raising the level of prices, transforming trade and banking, changing the finance of governments and giving rise to a new constellation of power, by pitting kings and queens, bankers and merchants, pirates and privateers, against each other.**

The name of 'Las Indias' reveals the initial incentive for the intrepid sailors who first undertook the crossing of the Atlantic in three minimal boats of some 51 gross tons each. Columbus wanted to reach the Portuguese Indies in the Far East through the back door, so to speak, by sailing west. His flagship was a carrack, the *Santa María*; the other two ships, the *Pinta* and the *Niña*, were caravels. It was later that galleons were used for the traffic with Europe.

One gets an idea of what it meant to sail across the Atlantic in those times if one remembers that the *Santa María* was lost in a storm in the Caribbean and the *Niña* was attacked by Berber privateers on her return. The hope was to obtain the spices of tropical India, for which there was such a craving in Europe. But this was certainly not all. Gold appeared obsessively in Columbus's diary. We only know of this journal because it was amply quoted by friar Bartolomé de las Casas, the ardent critic of the Spanish conquest. The friar made great play of the *auri sacra fames* of the Castilians to question their alleged care for saving the souls of the natives.

Some gold was found on Hispaniola and the other Caribbean islands, and was sent to Spain. Then came the gold taken by force

from the Aztecs in Mexico and the Incas in Peru. An abundance of votive and religious figures in gold were melted down and sent back to Spain (and to smugglers). During the last century, the great historian of the traffic of precious metals in the Spanish kingdoms and captaincies, Earl J. Hamilton (1934-2000), gathered data on the proportions of weight in gold and silver officially sent to, and registered by, the authorities in Seville: from 1503 to 1530, more than 95 percent was gold. But the treasure of gold objects taken from the natives was exhausted after 30 years, and the Spaniards had to turn to silver and become mining entrepreneurs.

The Crown did not own the mines in America, be they of gold or silver. They were claimed by their discoverers and were private property. The metal obtained, however, had to be taken to the office of a public assayer to have its fineness tested and a fifth was retained by the Crown. The metal bars or cakes were engraved or punched to show all this. They could then be sent to Spain. If they were taken to the colonial mints, the amounts had to be duly registered.

## Strokes of luck

A number of fortunate coincidences made the Spanish Crown metal rich and powerful, as the distinguished and ingenious Italian historian, the late Carlo Cipolla, noted. The first was the circle of winds that made it possible to navigate the Atlantic by taking the southern route via the Canaries to the Caribbean, and the Northern route via the Azores back to Seville.



Seville in the 16th Century. Attributed to Alonso Sánchez Coello

A similar wind system made it possible to send a yearly ship to the Philippines from Acapulco across the Pacific along the southern route, laden with silver pieces of eight, and bring it back by the north route laden with silk cloth and other Chinese specialities and ornaments.

The second piece of luck was the discovery by chance of hugely rich silver mines in Potosí in the middle of a desolate plateau high up in the Andes crowned by the 'Cerro de la Plata', the Silver Mountain, and after systematic prospection, the rich mines of Zacatecas and Guanajuato near Tenochtitlán or Mexico City.

The third piece of luck was the discovery and application of a new method of separating the silver from its mineral in the 1560s. Cinabrium is an amalgam (not a compound) of silver and metallic sulphur. The traditional process to recover the silver was to toast the mineral in furnaces, using scarce and expensive charcoal.

An enterprising merchant of Seville called Bartolomé de Medina proposed the new method of the 'patio' to separate the silver. It consisted of breaking down the red cinabrium rocks on a wide surface, and adding salt water and mercury to the gravel. The mercury displaced the silver in the amalgam and was evaporated, and the silver could then be easily recovered. At first, the required mercury came from Almadén in the centre of Spain. The poisonous metal had to be transported in leather pouches across the ocean and then by mule to Zacatecas or Ilima to Potosí. Then a fourth piece of luck! An inexhaustible reserve of mercury was discovered in Huancavélica in the Andes.

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Charles IV. Spanish gold 4-doubloon coin (8 escudos), stamped as minted in Mexico City mint in 1798.

### Goods traded between Seville (later Cadiz) and the Indies

Until the beginning of the 17<sup>th</sup> century, only a minimal part of the goods needed in the Americas was produced locally. Cipolla quotes a suggestive list of the varied merchandises, apart from mercury, that could be ventured on those frail ships. In 1594, the merchant Gaspar Gonzalez had the ships laden with “spoons, candelabra, stills to produce rum, razors, leather goods, rosaries, crystal bead collars, cloth, shirts, cambric, velvet, taffeta, handkerchiefs, copper lanterns and many other things”. The return goods, apart from silver, could be scarlet cochineal, blue indigo, medicinal plants, precious woods, sugar, tobacco and silk from the Philippines.

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To fight off pirates and privateers, it became obligatory to travel in well-armed convoys. The earliest known to have been organised was in 1535. In July 1561, a decree laid down that there were to be two convoys per year on the 'Carrera de Indias', the Road to the Indies. One would leave Seville in March or April destined for Mexico to collect the silver and other goods in Vera Cruz; the other would leave in August, before the hurricane season, to ship back the Peruvian silver, brought to the Colombian city of Cartagena de Indias from the port of Callao in Peru. It must have been a magnificent (and tempting) spectacle to see the long train of merchant vessels in full sail, headed by the Captain's armed galleon, with the rear brought up by the Admiral's galleon, and two or three men-of-war to windward of the convoy. The successes of the pirates have been exaggerated. In total, only three convoys were captured in two and a half centuries, one completely in 1628 by the Dutch privateer Piet Hain and two others partially by the English. Not one was captured on the Pacific route from Callao to Panama.

The true headache of the Spanish authorities was smuggling. Ramón Carande, the author of the classic *Charles V and his Bankers* (1955), gives the example of a galleon that sank between Cadiz and Gibraltar in 1555. The declared treasure on board was 150,000 pesos or pieces of eight. When the cargo was retrieved, it was discovered that the ship was carrying another 150,000 undeclared pesos. The measures taken to stop smuggling were not very successful!

### How much gold and silver

The statistic everyone uses to define the influx of gold and silver is that of Hamilton for declared gold and silver imported into Castile. Smuggling under its different forms must have increased that amount sizeably. But let me give the figures collected by heroically patient Hamilton.

**Table 1: Declared imports of Gold and Silver into Castile from America (metric tonnes)**

	Gold	Silver
1503-10	5	-
1511-20	9	-
1521-30	5	-
1531-40	14	86
1541-50	25	178
1551-60	43	303
1561-70	12	943
1571-80	9	1,119
1581-90	12	2,103
1591-1600	19	2,708
1601-10	12	2,214
1611-20	9	2,192
1621-30	4	2,145
1631-40	1	1,397
1641-50	2	1,056
1651-60	0.5	443
<b>TOTALS</b>	<b>181</b>	<b>16,887</b>

Source: E. J. Hamilton: *El tesoro americano y la revolución de los precios en España, 1501-1650*. Pg. 55. (Ariel, 1934, 2000)

Of course, if we compare these totals with the present day's gold and silver production, they seem puny: some 2,500 tonnes is the yearly average gold mine production today and 26,800 tonnes is the yearly average of silver mined. But there had been a dearth of the precious metals in Europe before 1492, so these small quantities were nothing short of revolutionary for trade and for prices.

The story of the rivalry between gold and silver has been one of a slow retreat of silver due to its progressively greater abundance. From 1497 to 1536, the official rate of exchange of silver to gold in Castile was 10.11 to 1. Then it fell to 10.61 in 1567. The 19<sup>th</sup> century bi-metallic systems rated silver at 15.1. The market today has it at around 74 to 1.



Phillip II: 4 Reales, 33mm. 13.70g. Potosi Mint. Assayer B.

Much of this silver was coined, in pieces worth eight reals, 'reales de ocho' as they came to be known. These pieces became so well accepted that they were found in Japan, China and India. Cipolla carefully explains that, in the Far East, they were valued by weight and not by tael, so that one often finds them cut in half or quarters to fit the exchange. However, in Europe, they became so popular that they were accepted at face value, which led to some authorities in Italy, for example, to forbid the circulation of coins originating from some mints in the Americas.

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### King Midas on the Atlantic

Hamilton also made a brave effort to calculate inflation for those same years in Castile. The comparatively small quantities of gold and silver did have a great effect on prices. Inflation was noticed but wrongly attributed to the demand for goods coming from the Indies or even more superficially from speculation.



A silver "real de a ocho"

In a closed economy, prices in terms of gold and silver would tend to reflect proportionately the influx of the two metals. But much of the smuggled amounts passed to the rest of Europe. A large part of the sums received by the Treasury were spent abroad in the different wars and foreign exertions of the Crown. Still, inflation there was, causing a veritable revolution in the economies of Europe.

According to Hamilton's careful calculations, based on the accounts of hospitals and colleges, from 1501 to 1550, prices in Andalusia, the New and the Old Castile, and Valencia increased by 127.74 percent. The rise continued so that, by 1600, the increase from 1501 had been 252 percent. Now, 252 percent over 99 years is according to my calculations a 5 percent annual rate of inflation. This must have looked enormous to the ordinary consumer in a half-monetised country, though to us, poor subjects of authorities intent on maximising the inflation tax under the pretext of fostering growth, it may not appear so great.

The most important consequence for Castile of the discovery and exploitation of precious metals in the Indies is another one: Spain suffered the so called 'oil curse' in the 16<sup>th</sup> and 17<sup>th</sup> centuries. The precious metals became the main, almost single, product of the Spanish economy. A plethora of rich mines together with a great technological advance in the extraction of silver meant the kingdom made its rulers pursue unreachable political and religious goals of domination. It has left us with a magnificent heritage in art, architecture, music, literature, shared by 23 republics and a kingdom. But for two centuries, everything Spain touched seemed to turn to gold.



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Explosion of San José during Wager's Action, 1708, sunk off the coast of Cartagena, Colombia, while laden with gold, silver and emeralds worth approximately \$700 million at today's prices. Oil on canvas by Samuel Scott