

# **DOUBLE-ENTRY BOOKKEEPING AND THE BALANCE OF PAYMENTS: THE NEED FOR A SUBSTANTIAL, CONCEPTUAL REFORM.**

by

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# INTRODUCTION: THE PAPER'S METHODOLOGICAL APPROACH AND AIM

## The paper explores:

- the double-entry bookkeeping logic behind the **BoP as conceived today** (i.e. **positive analysis**).
- the double-entry bookkeeping logic behind the **BoP as it should be conceived in future** (i.e. **normative analysis**) to formulate a statistically-relevant statement coherent with the essence of modern money and a true system of international payments.

## Preliminary considerations about point 1.:

- the BoP's *equilibrium* results from “real” flows (cf. CA) matching “financial” flows (cf. CFA).
  - i. tautological since an *equilibrium* between two distinct transactions reflects a **simple-entry rather than double-entry bookkeeping** logic.
  - ii. simplistic to claim that our purchase is our foreign correspondent's sale, when **the logic of double-entry bookkeeping requires both his and our purchases to be matched by simultaneous and equivalent sales.**

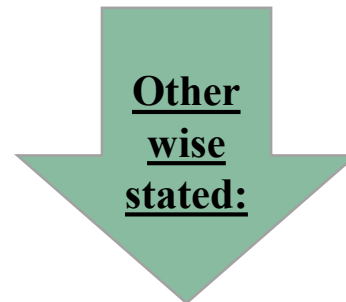
A second approach (cf. point 2.) should be explored to reflect a *truly* double-entry bookkeeping approach. The paper will hence:

- demonstrate the theorem according to which – based on the circular essence of bank money – **every net purchase (sale) on the commercial market must be instantaneously matched by a net sale (purchase) on the financial market.**
- re-imagine international reserves in the BoP itself. Since commercial/financial transactions recorded in the BoP pertain to private/public agents (i.e. residents) but they modify the nation's position *as a whole*, **a nation's economic account should be created** too.

**THE IDENTITY BETWEEN EACH  
COUNTRY'S TOTAL IMPORTS (IM) AND  
TOTAL EXPORTS(EX),  
COMMERCIAL AND FINANCIAL.**

Some fundamental relations (see Cencini 2007, p. 150):

- countries' international transactions have to comply with **the balance of payments identity IM  $\equiv$  EX**:
  - i. IM  $\rightarrow$  totality of a country's imports, financial and commercial;
  - ii. EX  $\rightarrow$  totality of a country's exports, financial and commercial”.



“[There is] a **fundamental law guaranteeing the necessary duality between each resident's sales and purchases**. In fact, if the foreigner from whom a resident buys must spend his payments – if he stores it, he spends it for the purchase of claims on bank deposits –, [...] the purchase of a resident is necessarily matched by an equivalent sale and that, reciprocally, the sale of the foreign correspondent is balanced by a purchase of the same amount” (Citraro 2004, p. 44).

## What the BoP identity $IM \equiv EX$ implies:

- if country A *buys* goods, services or financial claims from country B, it necessarily *sells* goods, services or financial claims to country B to finance its commercial or financial purchases;
- conversely, if country B *sells* goods, services or financial claims to country A, it necessarily *buys* goods, services or financial claims from country A to finance A's commercial or financial purchases.

*Both countries are, inevitably, commercial and/or financial buyers and purchasers at the same time and within every transaction.*

The formulations enounced before describe the so-called “law of the identity between each agent’s sales and purchases” formulated by Bernard Schmitt (1975), which:

- is one of the most relevant implications of the BoP and is based on the **circular essence of bank money**.
- states that **an economic subject has to finance his purchases by a concurrent sale and – each time he sells – he must concurrently purchase**. For example:
  - i. US importers:
    - net purchase of goods/services → -\$100;
    - net sale of a claim on the importers’ income (i. e. national bank deposits) → +\$100;
  - ii. exporters in the rest of the world (RW):
    - net purchase of a claim on the importers’ income (i. e. national bank deposits) → -\$100;
    - net sale of goods/services → +\$100.





## The paradox of today's BoP: “

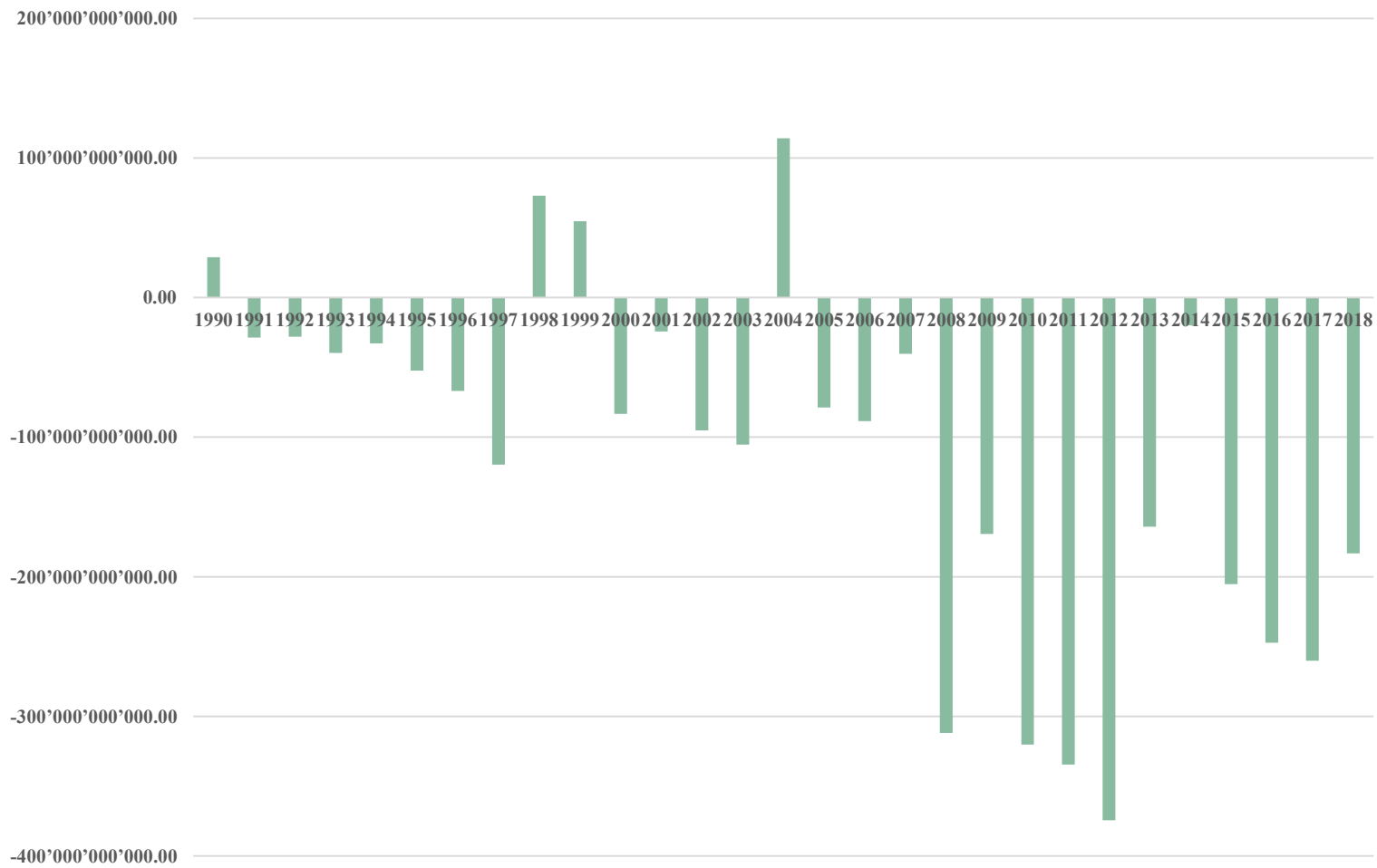
- “[a]lthough the balance of payments accounts are, in principle, balanced, imbalances result in practice from imperfections in source data and compilation” (IMF 2009, p. 11). Therefore, the aggregate sum of debts and credits has to be offset by an item called “net errors and omissions”.

How-  
ever:

(1) The BoP is not based on an equilibrium, but on an “identity” (IMF 2009, p. 224): CAB + CFAB ≡ 0. (2) An equilibrium is just a *particular* (not always a *given*) condition, which has to be reached *ex post*. (3) Accepting that today's BoP entries are often derived independently from different sources (with time lags) confirms its implicitly underlying single-entry bookkeeping conception and reduces the BoP to a collection of statistical data instead of being a clear-cut T-account of all external transactions.

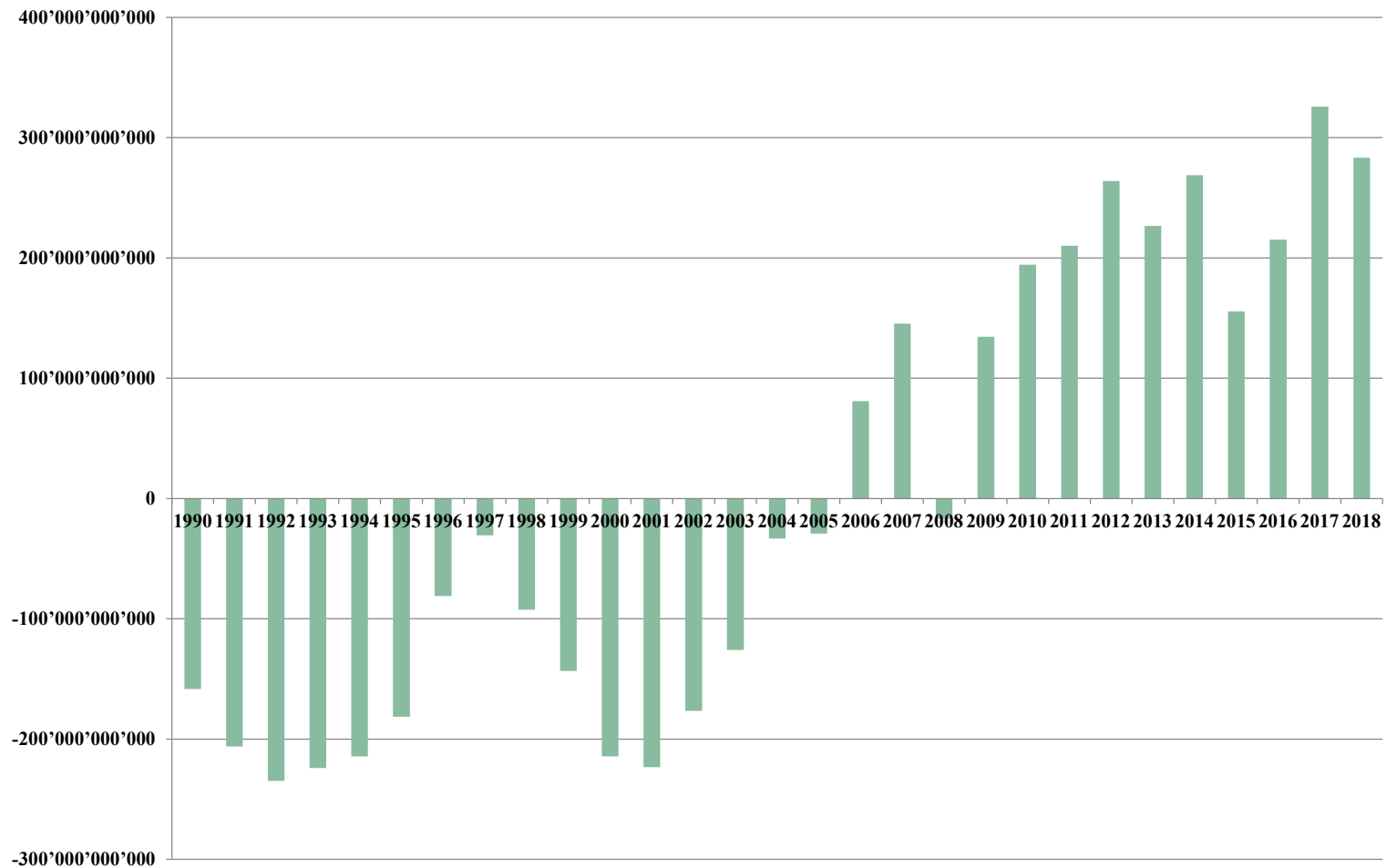
Net errors and omissions (current US\$) in the balances of payments of 192 countries (1990-2018)

Source: own calculations on the basis of The World Bank (2019c)



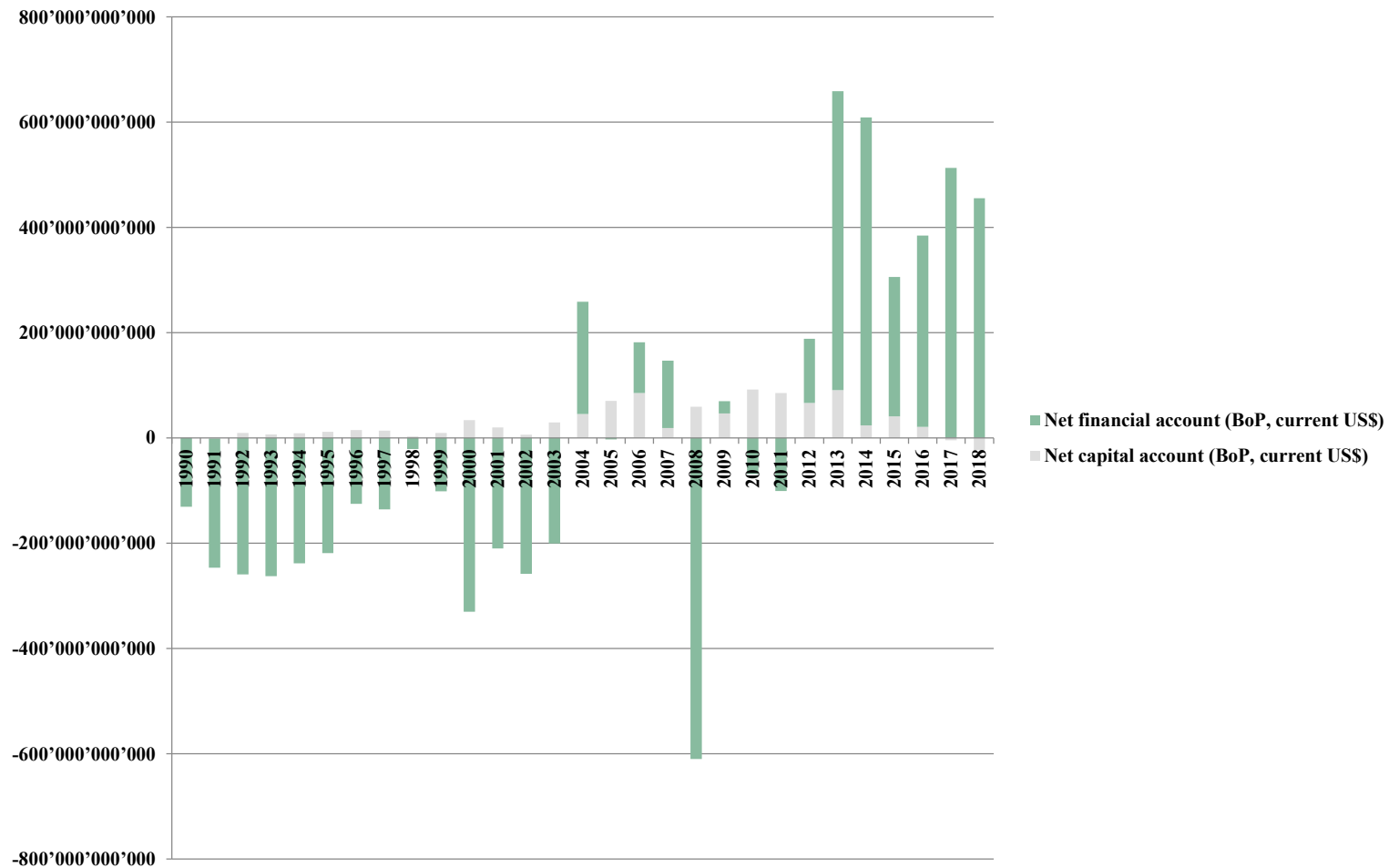
Current account imbalances (current US\$) for 191 countries (1990-2018)

Source: own calculations on the basis of The World Bank (2019a)



Capital and financial account imbalances (current US\$) for respectively 186 and 192 countries (1990-2018)

Source: own calculations on the basis of The World Bank (2019b; 2019d)



**THE RESERVE ACCOUNT (INCL.  
SO-CALLED “RESERVE ASSETS”) AS  
THE ACCOUNT OF A COUNTRY TAKEN  
AS A WHOLE.**

## Monetary definition of “country” or “nation”:

- **based on the money unit** involved **and the** corresponding **banking system** (i. e. a country’s national currency is an acknowledgment of debt of the whole system).
- **“sets of their residents”** ( $\{S_1, \dots, S_n\}$ )  $\rightarrow$  macroeconomic approach.
- “aggregate or sum of their residents” ( $\sum(S_1, \dots, S_n)$ )  $\rightarrow$  microeconomic approach.

## The totality of any country’s external transactions is carried out by its residents, State included. The country itself, as the *set of its residents*, is no autonomous economic agent. However:

- international reserves are managed by the central bank on behalf of the *country as a whole*.
- the BoP should distinguish between “origin” (i.e. residents of the country), “administration” (i.e. the central bank) and “economic ownership” (i.e. the country as *set of its residents*) of foreign exchange reserves.

## How to highlight the country's involvement from an accounting perspective:

- **commercial and financial transactions** in the BoP pertain to private and public agents (i.e. residents) but **modify the nation's position as a whole**:
  - i. a **country's economic account** (i. e. **a new version of the existing IIP**) should be created.
  - ii. the **official reserves account** would mainly deal with foreign reserves (as it already does) and represent **the account of the country taken as a whole**.
  - iii. the **reserve account** would be directly **involved in every current, capital and financial account transaction** (for example, a commercial export would lead to an increase in the country's official reserves because of the positive inflow of a sum of foreign currency).

**TODAY'S SYSTEM OF INTERNATIONAL  
PAYMENTS DOES NOT RECOGNIZE THE  
EXISTENCE OF COUNTRIES AS SETS OF  
THEIR RESIDENTS.**



The BoP should be transformed into a bookkeeping instrument for both the *country as a whole* and its *residents*:

- the system of international payments in its current form is flawed because it is at odds with the **flow nature of money**;
- the **BoP** is a **mere collection of separate statistical data** and hardly complies with the bookkeeping identity on which it should be founded.

It is not the *trade balance* of any single country that must be in equilibrium, but its *monetary balance*, its overall inflows and outflows of foreign currencies:

- the **corollary to  $IM \equiv EX$**  (i.e. the identity between each country's global sales and purchases) is the **necessary equilibrium of their monetary balances**.

## The reform steps:

- **BoP** to become a **bookkeeping account of the external transactions of countries**;
- creation, in each country, of a national Bureau responsible for all the payments by and in favour of the country's residents;
  - i. **internal department** (ID) turned **toward** the **country's domestic economy**;
  - ii. **external department** (ED) turned **toward the rest-of-the-world**;
- using the country's domestic currency, each payment initiated by the country's residents is carried out as a double double-entry procedure;
- example:
  - i. **importers** are credited-debited by their banks: their purchases imply **a debit** and are **matched by equivalent sales of financial claims** (deposit certificates or securities), for the amount with which they will be **credited**;
  - ii. the **Bureau's ID** is **credited** by the sum of national currency spent by importers **and debited for an equal amount** to the benefit of its ED;
  - iii. the ED will first purchase financial claims from its domestic economy and then sell them abroad in order to finance its external payment on behalf of country's importers. **Every inflow of national or foreign currencies** to each department of the Bureau will thus be **balanced by equivalent outflows**.

# CONCLUDING REMARKS

## Some reflections about the reasons for the status quo:

- money wrongly identified with a positive asset and vehicular essence neglected:
  - i. this principle alone *necessarily* imposes that any single agent involved in a transaction is credited (debited) and debited (credited) by the same amount. No accounting discrepancies can occur.
- “countries” or “nations” are monetarily speaking considered “sum of their residents” instead of “set of their residents”.
- Implicitly underlying simple- instead of double-entry-bookkeeping logic.
- BoP identity wrongly turned into a condition of equilibrium.

- BoP's significance due to far-reaching history from the 19<sup>th</sup> century onwards, but also to underlying double-entry bookkeeping mechanisms.
- *Every* transaction must be entered *twice*, once as a *credit (debit)* and once as a *debit (credit)*. But, since **commercial and financial registrations** are **recorded separately**, the BoP is exposed to **billion-high inaccuracies**. By doing so, the **double-entry bookkeeping logic is openly neglected**, turning the BoP into a mere statistical instrument.
- This paper as a **plea for a substantial, conceptual reform** implementing the double-entry bookkeeping already recognized to be a pillar of the BoP. This would **simplify the recording process**, now complicated by valuation and time issues (leading in turn to massive, cumulative inaccuracies).

# THANK YOU! FOR FURTHER INFORMATION:



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## SEE ALSO THE NUMERICAL (POST-REFORM) EXAMPLE IN THE ANNEX.