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Classifying Exchange Rate Regimes: Deeds vs. Words

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Highly preliminary. Comments welcome.
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Abstract

Most of the empirical literature on the relative merits of alternative exchange rate regimes uses the IMF *de jure* classification based on the regime that governments *claim* to have, abstracting from the fact that many countries that in theory follow flexible regimes intervene in the exchange market to an extent that in practice makes them indistinguishable from fixed rate regimes, and vice versa. To address this problem, in this paper we construct a *de facto* classification of exchange rate regimes. Using cluster analysis techniques, we group different regimes according to their behavior along three classification dimensions: the nominal exchange rate, changes in the nominal exchange rate, and international reserves. We compare our results with the IMF classification, and discuss the main discrepancies. The paper provides an exchange rate classification for each country and each year during the period 1990-1998 which is readily available for downloading at http://www.utdt.edu/~fsturzen or http://www.utdt.edu/~ely.

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1. Motivation

The proper assessment of costs and benefits of alternative exchange rate regimes has been a hotly debated issue. Most of the literature has concentrated either in the tradeoff between monetary independence and credibility implied by different exchange rate regimes, or on the insulation properties of each arrangement in the face of monetary and real shocks. However, recent episodes of financial distress have led to renewed interest on the topic, by introducing the question of which exchange rate regime is better suited to deal with increasingly global and unstable world capital markets. Recent contributions on the issue include Eichengreen (1994), Calvo (1999), Frankel (1999), Rose (1999) and Larraín and Velasco (1999).

In this paper, we argue that most of the research in this area has been misguided. Not in the questions that it has asked, which are important and relevant, but in the way the literature has, so far, classified exchange rate regimes. It has been common practice in this literature to classify exchange rate regimes by the *de jure* (legal) regime as compiled by the IMF, i.e., according to the regime the country declares to be running.[2] In turn, this classification has been the standard regime index used in econometric work.

We believe that this procedure is misleading. There are countries that *in theory* have a flexible rate but for whom intervention in exchange markets is so pervasive that *in practice* very little difference exists (in terms of either policy or observable outcomes) with countries that have explicit fixed exchange rate regimes. Conversely, inflation prone countries usually have unsustainable fixed exchange rates. Periodic devaluations are therefore the result of the implementation of monetary policies that are inconsistent with fixing the exchange rate and that make the effective regime more similar to a flexible arrangement. Moreover, countries that appear to behave according to the declared regime during tranquil times may be tempted to change their course of action once the regime is under stress.

All this implies that, for the purpose of studying the impact of different exchange rate regimes, a new classification is required to capture the true differences in actual policies that are not properly taken into account by the legal definition. Ghosh, Gulde, Ostry and Wolf (1997) pursue this idea when they examine the impact of exchange rate regimes on fiscal performance, inflation and real variables, going beyond a simple *de jure* classification of exchange rate regimes.[3] Frieden *et al*. (1998) also modify the standard IFS classification in order to account for frequent adjusters and for different types of crawls.

While similar in spirit to our research, this work does not account for different degrees of intervention under flexible regimes and, more importantly, they stop short of constructing a usable classification index. Similarly, this work underscores that there is no agreement even on the number of exchange rate regimes that should be considered.

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[2] See any issue of the IMF's *Exchange Arrangements and Exchange Restrictions*. An example of the IMF *de jure* classification can be found in any issue of the *International Financial Statistics*.

[3] For example, they do not consider as "fixers" those countries which experienced substantial devaluation of their exchange rate.

As will be seen below our methodology allows to use the data to make a statement on the number of regimes which can be distinguished from the data.

In this paper, we intend to cover this needed methodological step, proposing one such index to be used in future research. More precisely, we group different exchange rate regimes according to the behavior of three classification variables: the nominal exchange rate, the change of the nominal exchange rate, and international reserves. Underlying the selection of this variables is the idea that a textbook definition of exchange rate regimes would associate fixed exchange rate regimes with high volatility in international reserves coupled with little volatility in the nominal exchange rate. On the contrary, flexible regimes would exhibit substantial volatility in nominal rates with relatively little volatility in reserves. Thus, the different behavior in each of these variables should be sufficient to determine the regime to which each country corresponds.

In order to make such classification we use a cluster analysis methodology which sorts the cases into a given number of groups according to the characteristics for the three variables of reference. We apply the classification procedure twice. As in the first round, the algorithm groups a substantial number of countries in a cluster characterized by a small variability along all dimensions, we repeat the classification procedure only for countries belonging to this low variability cluster, to acknowledge the existence of distinct regimes within this group. We think that the distinction between high and low variability countries could be potentially very useful. By introducing this variability dimension, this new methodology has the advantage that it allows to incorporate to the econometric analysis the *intensity* of the shocks to which the regime is subject, something that qualitative indexes previously used did not allow for. This may turn out to be relevant for the empirical analysis as a way of testing whether the policy response under different exchange rate regimes, and their impact on other variables, depends on the relative magnitude of underlying shocks. As is discussed below, the intensity dimension is also important to avoid the usual bias towards the irrelevance hypothesis, particularly likely if the effect of the regime on other variables is significant only at high volatility levels.

The paper proceeds as follows: Section 2 describes the data, the construction of the variables, and the exchange rate classification procedure. Section 3 provides the classification results and compares them with the IMF classification. Finally, Section 4 discusses further empirical work and concludes.

2. Methodology

Classification variables

Our classification is based on three variables closely related to exchange rate behavior. *Exchange rate volatility* (ME) is measured as the average of the absolute monthly percentage changes in the nominal exchange rate during the year. *Volatility of exchange rate changes* (DE) is measured as the standard deviation of the monthly percentage changes in the exchange rate. For both of these variables it was necessary to establish a currency of reference. For this we chose the legal peg currency or, in the case of managed floats, the currency to which the exchange rate exhibited the least volatility

from among the major currencies.[4] Countries which pegged their currency to a basket were eliminated from the sample unless the basket weights were known and the central peg parity could be computed. The reference currency for each country is presented in Appendix 1.

The third classification variable, *volatility of reserves* (MR) is measured as the average of the absolute monthly change in international reserves relative to the monetary base in the previous month in order to proxy the monetary impact of these changes. More precisely, we subtract government deposits at the central bank from the central bank's net foreign assets and divide its monthly change by the monetary base lagged one month.[5] External liabilities had to be eliminated in order to consider only international reserves with a counterpart in monetary aggregates. In turn, changes in government deposits have to be netted out to correct for variations in international reserves that do not lead to changes in base money.[6]

The data computes a yearly figure for each classification variable for all countries that reported in the IFS. The period of analysis is 1990-1998.[7] A summary of the database is presented in Figures 1 through 3, which show the histograms for the three variables.[8] The distribution of both exchange rate variables, ME and DE, (resp. Figures 1 and 2), are highly skewed to the left. In the first case, for example, more than 350 cases out of a total sample of 955 (each case representing an annual figure for a given country) exhibit no change in the nominal exchange rate, and the number of cases decreases as the monthly devaluation increases. As expected, the same pattern is valid for the rate of change of the nominal exchange rate, with the mode corresponding to fix rate regimes. Figure 3 shows the variability for international reserves relative to the monetary base. Here relatively fewer observations correspond to the case of a low monthly change with the mode indicating an average monthly fluctuation in international reserves of about 5% of the monetary base. The curve still shows substantial skewness indicating that most countries exhibit a volatility of between 0 and 5% in its international reserves.

Exchange Rate Regimes

According to the three classification variables described above, *a priori* we expect different regimes to exhibit the following patterns:

[4] The US dollar, the French franc, the German marc, the British pound, and the Japanese yen were considered. All data are from the IFS.
[5] We use line 11 from the IFS, net of lines 16c and 16d, and divide its change by line 14 (or 14a if line 14 was not available) lagged one month.
[6] Oil producing countries and countries with important privatization programs are examples of cases where the latter correction matters.
[7] The complete database is available at http://www.utdt.edu/~fsturzen or http://www.utdt.edu/~ely.
[8] For expositional purposes, the charts leave out the upper tails of the histograms.

Table 1

	ME	DE	MR
Inconclusive	Low	Low	Low
Flexible	High	High	Low
Dirty Float	Medium	Medium	Medium
Crawling Peg	Medium/High	Low	Medium/High
Fixed	Low	Low	High

The interpretation of Table 1 is straightforward. According to the textbook definition flexible exchange rates are characterized by little intervention in the exchange rate markets together with high volatility of exchange rates. Conversely, a fixed exchange rate regime occurs when the exchange rate does not move (or moves very little) while reserves fluctuate substantially. A crawling peg system corresponds to the case when changes in the nominal exchange rate are significant, but with relatively stable increments, accompanied by active intervention in exchange rate markets. A dirty float corresponds to the case in which volatility is relatively high across all variables, with exchange rates moving in spite of active intervention.[9]

Finally, countries that do not display significant variability in either variable are grouped in a class that we denote "inconclusive". The wording is not arbitrary since, given the magnitude of the changes involved, the experience of these countries should not tell us much about the specific impact of the type of regime on the behavior of the economy. The underlying hypothesis is that the exchange rate regime has an impact on economic performance only when the variables that distinguish the different regimes show discernible different patterns. If so, the inclusion of "inconclusive" cases on the right hand side of standard econometric tests would bias the results in favor of the hypothesis that exchange rate regimes have no significant bearing on other variables. [10]

Cluster analysis

Once the three classification measures are computed for our universe of countries, we use *cluster analysis* as a way of assigning countries to different groups. We consider each cluster as representing a distinct exchange rate regime, independently of the "legal" regime stated by the country that is assigned to this group.

[9] Frankel (1999) identifies nine exchange rate regimes: currency union, currency board, "truly fixed" exchange rates, adjustable peg, crawling peg, basket peg, target zone or band , managed float and free float. These nine groups can be broadly mapped into the four categories identified in our work, with the first three groups corresponding to a fix, the next three to a crawling peg, and the last two to a dirty and a pure float. Exchange rate bands may behave either as a crawling peg (when the exchange rate hits one of the bounds), as a float (when it fluctuates within the band) or as a dirty float (in the presence iof intramarginal intervention). At any rate, it is interesting to stress that an increase in the number of clusters in our specification did not lead to the appearance of a new and clearly identifiable group, suggesting that, from the point of view of the observed behavior of the data, there is no much information to be gained by going beyond our four-way classification.

[10] Unlike the case of traditional exchange rate regime indexes, our classification allows us to test this hypothesis empirically.

Cluster analysis is a technique used to identify homogeneous groups or clusters.[11] While the standard discriminant analysis starts from a known classification of the sample to derive a classification rule to be applied to out-of-sample cases, cluster analysis has the advantage that it does not need to know in advance the type of regime we are facing but rather works in the opposite direction, constructing groups according to similarities (distances) between the sample elements measured over (in our case) the three dimensional space defined by the classification variables previously described.

Hierarchical Cluster Analysis (HC), typically used for small samples, allows for a discretionality on the part of the researcher in determining the way distances are measured, in the order the sample is introduced and in how the classification itself is realized. In general, methods for defining clusters fall into three groups: linkage methods, error sums of squares, or variance methods. All of them start from a matrix of distances between pairs of elements, and differ in how they estimate distances between clusters *at successive steps*. Thus, in the nearest neighbor method (single linkage) the first two cases combined are those with the smallest distance between them. The distance between the new cluster and other individual cases is then computed as the minimum distance between an individual case and a case in the cluster. At every step, the distance between two clusters is taken to be the distance between their two closest points. We can describe along similar lines other variants like the complete linkage (furthest neighbor), the average linkage, or the centroid methods.

Alternatively, in K-Means Cluster Analysis (KMC), based on *nearest centroid sorting* (Andergerg, 1973), a case is assigned to the cluster with the smallest distance between the case and the center of the cluster (centroid). The number of clusters is specified *ex-ante* by the user, and cluster centers are iteratively estimated from the data. This method requires the least intervention from the researcher. Since it is crucial to our work that the resulting classification should be as candid as possible, with minimum manipulation of the classification criteria, we choose KMC as our classification method.[12]

However, because KMC relies on a measure of the distance between points it is important that measures be comparable in order to obtain a relevant classification along all dimensions. In order to achieve this we z-normalize all variables by using deviations to the mean divided by the standard deviation. Prior to this normalization we eliminate the 1 percent-upper tail of observations for each of the three dimensions, which entailed leaving 22 observations out from a sample. [13]

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[11] The most common examples of the use of this technique come from the areas in which it is most frequently used: numerical taxonomy of animals and plants (biology), distinct pathological groups (medicine), people with similar buying habits (marketing), etc.

[12] We use SPSS 8.0 as our computational device. The algorithm for the K-means classification proceeds as follows: "The first k cases in the data file, where k is the number of clusters requested, are selected as temporary centers. As subsequent cases are processed, a case replaces a center if the smallest distance to a center is greater than the distance between the two closest centers. The center that is closer to the case is replaced. A case also replaces a center if the smallest distance from the case to a center is larger than the smallest distance between the center and all other centers. Again, it replaces the center closest to it" (Norusis, 1993).

[13] Because these outliers do not present classification problems, we re-classify these observations ex-post. The procedure for their classification was to classify them around the centroids obtained from the classification of all the remaining data. In short, this procedure is equivalent to assigning these observations to the cluster with the nearest centroid. In the tables, countries classified according to this criterion are denoted by the indicator (3).

3. Exchange Rate Regime Classification

In order to provide the starkest version of our analysis we proceed in the following fashion. After eliminating all yearly observations for which one of the variables was unavailable, and after eliminating outliers and normalizing we use the K-means procedure to classify countries into the 5 clusters described in Table 1. We call this first pass at the data the 1st round classification.

In general this initial classification allocates a high proportion of countries within the "inconclusive" category. As discussed in the introduction, identifying separately these countries should be useful information for empirical work, as it singles out those countries where shocks did not require significant adjustments in either the nominal exchange rate or reserves.

However, this group contains countries with very well defined exchange rate regimes. While variations may be small, countries within this group can exhibit no change in the nominal exchange rate, with active (albeit small) change in international reserves, corresponding to the fixed rate group. Similarly, countries may show no volatility in international reserves and small but positive volatility in the nominal exchange rate. These countries should be classified as floats.

In order to recover this potentially useful information, while distinguishing at the same time high and low variability cases, we reclassify the "inconclusive" cases using the same methodology as before. That is, we re-normalize the data for these cases, and apply the K-means procedure on the normalized values, again allowing for five groups. We call this analysis of the "inconclusive" sub-group the 2nd round classification. In general the two-round procedure assigns an exchange rate regime to most countries in the sample, i.e. the "inconclusive" from the 2nd round classification are relatively few.[14]

The classification methodology is summarized in Figure 4 and the main results of the classification are presented in Tables 2 through 4. Appendix 2 shows the classification results for each country and year, to be used as input in empirical work.[15] Table 2 shows the upper and lower bounds of the three underlying variables for the 1st and 2nd round classifications, and confirm that the identified groups span the data as expected.

For the 1st round classification several interesting results are evident from the numbers. First, fixed and floating exchange rate regimes clearly diverge in the behavior of international reserves. Whereas floating rates exhibit changes in reserves that oscillate between 0.1% and 13% on average, the equivalent range for fixed rates goes from 12.4% to 41.8%. While there are some dirties which exhibit low intervention in foreign exchange markets, these cases are in general associated with much larger fluctuations in the nominal exchange rate. The evidence seems to make the following important point: *Pure floats appear to tolerate relatively minor fluctuations in the exchange rate*. As a rule, countries with substantial movements in the nominal exchange rate usually intervene actively in exchange rate markets.

[14] In the tables, the countries that are classified in this second round are denoted by the indicator (2), to keep track of low variability countries within each category.

[15] This table is also available for downloading in Excel format for direct use in http://www.utdt.edu/~fsturzen.

Regarding the variability in the nominal exchange rate, the group of countries considered to have a pure float includes average monthly devaluation rates which range between 1.1% and 4.9% whereas countries classified in the fixed exchange rate regime includes pure fixes as well as cases with changes in the nominal exchange rate that go as far as 4.5%.

In the 2nd round classification the grouping becomes more dichotomous between the fixers and the floats. While fixers exhibit a volatility of the nominal exchange rate that goes from zero to 0.3%, floaters exhibit a volatility that ranges between 0.5% and 1.4%. On the reserves dimension, floaters have an intervention rate between 0.1% and 5.4% of base money, whereas for fixers the minimum average intervention is 5.7%. Within the 2nd round classification there is no clear distinction between the two types of intermediate regimes (managed floats).

The relative frequency of each regime is presented in Table 3. The table shows that, based on the final, two-round, classification, cases are evenly distributed between floaters and fixers, with an equivalent number of cases in the managed floating group. This result arises from a larger participation of floaters in the 1st round classification and a larger number of fixers among the 2nd round classification. As the latter cases correspond to countries which are not subject to substantial volatility in international capital markets this result could be indicating that as volatility increases most countries (are forced to) edge towards floating their exchange rates. Conversely, inverting the direction of causality, this finding may interpreted as suggesting that fix exchange rate regimes are more often associated with greater stability.[16]

The fact that cluster centroids are determined from observations spanning nine years of data implicitly fixes the regime characteristic (coordinates) over the period, and use them as a time-invariant benchmark against which to compare observations belonging to particular years. Thus, one should expect different international market conditions to affect the relative frequency of regimes over the years. Thus, while we find relatively few manage floats during the tranquil early years (1990-1993), the degree of intervention jumps dramatically in 1994 and 1995.

A substantial body of literature has discussed whether in the context of increasing capital mobility the sustainability of managed exchange rate regimes was becoming more and more difficult. This point, stressed by Eichengreen (1994), and referred to as the "hollowing out hypothesis", has also been addressed by Frankel (1999) and Cohen (1999). Table 4a and 4b gives us some indication as to whether the hollowing out hypothesis holds true in our sample: As can be seen from the tables there is no indication of a gradual disappearance of intermediate regimes. Even though the methodology allows for a change in the number of cases belonging to each group every year, we find no apparent pattern supporting the "hollowing out hypothesis" in the data.

A comparison with the IFS classification

[16] The discussion of this point is beyond the scope of this paper and certainly deserves a careful econometric analysis.

Tables A3.1 through A3.9 presented in the Appendix 3 compare our classification with the standard *de jure* classification used by the IMF.[17] As expected, there is a high degree of coincidence between both classifications, but also a substantial number of mismatches.

Table 5 provides a first pass at the nature of the discrepancies. Excluding 2nd round inconclusives, which are not assigned to any particular regime, we compute the count the number of countries which claim to be fixers but which show substantial movement in their exchange rates, and those countries which claim to be floaters but which actively intervene in exchange rate markets.[18] The number of countries which seem not to follow their word seems to have declined from about 30% at the beginning of the sample to about 20% towards the end. While there seems to be an increased consistency between what is said and what is done, the pattern is by no means monotonic throughout the sample period.

Looking more carefully at the tables presented in the Appendix, one can clearly identify the sources of discrepancies. Fixers which do not fix correspond to countries with occasional devaluations including the CFA countries in 1994 and Spain after 1992. Venezuela and Nepal also appear occasionally in this category.

Conversely, many countries that claimed to run a floating rate displayed little exchange rate volatility coupled with intense foreign exchange market intervention, so that in reality they are closer to a fix exchange rate regime. Brazil and New Zealand appear occasionally in this group as well as some Scandinavian economies like Norway, Finland and Sweden.

An informal test of the theory

An additional test for the validity of our classification is to track, for particular countries, the regime that follows from the new classification. Table 14 shows for selected countries the result of our classification. As can be seen from the Table, the developed economies within the first group have consistently sustained a pure float. Indeed, the fact that the regime is identified as float in the 1st round indicates that these countries have allowed for a non-negligible degree of volatility in the exchange rate.

For the emerging economies in this sample the results look different. Here market intervention is more pervasive. As expected for high inflation countries, the Dirty/CP classification appears to be the most common. There are exceptions, however: Argentina maintained a fixed rate since 1992, and both Mexico and Chile allow for pure floats.

[17] In the tables, inconclusive countries are those classified in this category in the second round. Outliers are denoted by the indicator (3), and assigned to a group based on their relative distance to the centroids of the different clusters obtained from the K-Means procedure as explained in footnote 7. We have also elmiminated from this table those countries which changed their exchange rate during the year. The table of countries which changed their IFS classification, together with our classification value for that year are presented in table A3.10 in Appendix 3.

[18] Precisely, what we do to estimate the number of fixers which are not fixed is to add the countries in the column "fixed" which in our classification correspond to floaters or to any of the two types of dirty floats. Similarly, to compute the floaters which do not float we add the countries in the column "float" which in our classification correspond to fixers of dirty floats.

Western European economies also show different patterns. Whereas towards the end, exchange rate stability prevailed (with the exception of Italy), in the interim we find divergent results. Denmark, for example, which has remained out of the EMU, has been consistently linked to the deutsche marc. Similarly, France has intervened actively to keep its parity in line with the marc. On the other hand, Italy allowed its currency to float in the aftermath of the British devaluation of 1992.

For small open economies the common pattern has been to fix their exchange rates to the currencies of its main partner(s), something to be expected given their rather limited range for an independent monetary policy.[19] However, we also find countries with relatively little intervention, which are therefore classified in the irrelevant category.

Interest rate policy

An important question related to our facts-based approach is the role played by the interest rate policy, a dimension that we ignored in our classification procedure.[20] It could be argued that in some cases interest rates, instead of reserves, are used to equilibrate the exchange rate market, a practice that could potentially defeat the purpose of this classification by identifying as free floaters countries that actively intervene to stabilize the exchange rate. Although this represents a legitimate argument, several reasons move us to leave interest rate out of the classification process.

First, we believe that the scope for interest rate policy to alter exchange market conditions without a concomitant movement in reserves is quite limited, both in duration and strength, as indicated by the success of most of the speculative attack episodes during our sample period.

But even if this were not the case, whether a positive correlation between interest rates and market pressure should be directly associated with a fix or dirty exchange rate regime is not obvious. While it is true that countries tend to use interest rate policy to stabilize the nominal exchange rate, this may be regarded just as an example of the active use of monetary policy, which is perfectly in line with the textbook definition of a flexible rate regime. Indeed, it is easy to see that a policy that targets inflation can induce exactly the same type of behavior, making it extremely difficult to disentangle whether the interest rate hike is due to "fear of floating"[21], or whether it is counteracting the inflationary effect of a depreciation.[22]

Hausmann (1999) provides a useful illustration of the point, by contrasting the evidence from Australia and Mexico. Australia lowered interest rates at the beginning of the Asian crisis, easing monetary policy to compensate for the deflationary effects of the crisis and allowing the local currency to depreciate. Mexico, on the other hand, tightened monetary conditions in early 1998 when it faced increased exchange rate pressure. As a result, the correlation between exchange rate and interest rate changes is positive in the latter and negative in the former.[23] However, according to our

[19] It is interesting to note that most of the pegs to currency baskets with undisclosed weights that had to be excluded from the sample belong to this group.
[20] We are grateful to Ricardo Haussman for bringing up this point to us.
[21] This is a point made in Calvo (1999).
[22] The more so in the case of developing economies with a significant exchange rate pass-through.
[23] Haussman uses nominal rather than real interest rates so that, even in the absence of a tightening, a positive correlation may be reflecting devaluation expectations.

classification both countries are labeled as floaters, which is consistent with the fact that they are both using monetary policy independently in order to affect the behavior of the nominal exchange rate. Should Mexico be classified as a dirty float? One is tempted to think that the negative consequences of an abrupt depreciation (of which inflation is only one) was in the mind of the Mexican authorities while deciding their interest rate policy. However, we should note that Canada, a country that, like Mexico, has an inflation target, displayed the same positive correlation at the time.[24] [25]

4. Final Remarks

Having a proper exchange rate regime classification is essential for a proper understanding of the implications of choosing different exchange rate regimes. This paper generates what we believe is a more meaningful classification of exchange rate regimes than that so far used in empirical work, and is a necessary first step for research in the area.

The main contribution of the paper is to present, for the first time, an exchange rate regime classification entirely based on facts rather than on legal characteristic of the regime. Moreover, our approach highlights the importance of distinguishing between low and high variability countries to better analyze the link between regimes and other macroeconomic variables. Although some basic characteristics already emerged from simple inspection of the classification, only future empirical research will reveal whether this new classification proves useful to understand the implications of different exchange rate regimes. Future work should also explore the possibility of using a similar approach to build from the data a quantitative indicator of the relative fixedness of exchange rate regimes.

[24] Canada is also a float according to our index.

[25] We do not intend to close the discussion here. Rather, we prefer to suggest that an alternative classification could be conceived that assigns regimes according to the (non-observable) targets of the monetary authorities. There, both Canada and (particularly) Mexico would be deemed managed floats, as will be any country that keep exchange rate in check to limit inflationary pressures. However, the previous discussion indicates the non trivial problems involved in defining classification variables that accurately capture the latent objective function of the central bank.

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Appendix 1: Currencies of Reference

The currency of references for each country were the following:

Albania, US dollar. Antigua and Barbuda, US dollar, Argentina, US dollar, Australia, US dollar. Austria, German marc. Bahamas, US dollar. Bahrain, US dollar. Barbados, US dollar. Belgium, German marc. Belize, US dollar. Benin, French franc. Bhutan, Indian rupee. Bolivia, US dollar. Brazil, US dollar. Burkina Faso, French franc. Cameroon, French franc. Canada, US dollar. Central African Republic, French franc. Chad, French franc. Chile: central band parity as published by the Central Bank of Chile (non IFS data). Colombia, US dollar. Comoros, French franc. Democratic Republic of Congo, French franc. Republic of Congo (previously Zaire), US dollar. Costa Rica, US dollar. Cote d'Ivoire, French franc. Denmark, German mark. Djibouti, US dollar. Dominica, US dollar. Dominican Republic, US dollar. Ecuador, US dollar. Egypt, US dollar. El Salvador, US dollar. Equatorial Guinea, French franc. Ethiopia, US dollar. Finland, German marc. France, German marc. Gabon, French franc. The Gambia, British pound. Germany, US dollar. Ghana, US dollar. Greece, German marc. Grenada, US dollar. Guatemala, US dollar. Guinea-Bissau, French franc. Guyana, US dollar. Haiti, US dollar. Honduras, US dollar. Hong-Kong, US dollar. India, US dollar. Indonesia, US dollar. Ireland, German marc. Israel, US dollar. Italy, German marc. Jamaica US dollar. Japan, US dollar. Kenya, US dollar. Korea, US dollar. Kuwait, US dollar (it is strictly an undisclosed peg where the dollar carries most of the weight). Lebanon, US dollar. Lesotho, South African rand. Libya, IMF Deg, Luxembourg, German marc. Madagascar, US dollar. Malaysia, US dollar. Maldives, US dollar. Mali, French franc. Mauritius, French franc. Mexico, US dollar. Mongolia, US dollar. Myanmar, US dollar. Namibia, South African rand. Nepal, Indian rupee. Netherlands, German marc. Netherlands Antilles, US dollar. New Zealand, US dollar. Niger, French franc. Nigeria, US dollar. Norway, German marc. Oman, US dollar. Papua New Guinea, US dollar. Paraguay, US dollar. Peru, US dollar. Philippines, US dollar. Poland, German marc. Portugal, German marc. Qatar, US dollar. Rwanda, IMF deg. Saudi Arabia, US dollar. Senegal, French franc. Sierra Leone, US dollar. Slovenia, German marc. South Africa, US dollar. Spain, German marc. St. Kitts and Nevis, US dollar. St. Lucia, US dollar. St. Vincent & Grenadines, US dollar. Swaziland, South African rand. Sweden, German marc. Switzerland, US dollar. Tanzania, US dollar. Thailand, US dollar. Togo, US dollar. Trinidad & Tobago, US dollar. Turkey, US dollar. United Arab Emirates, US dollar. United Kingdom, German marc. United States, German marc. Uruguay, US dollar. Venezuela, US dollar. Republic of Yemen, US dollar. Zambia, US dollar. Zimbabwe, US dollar.

Other countries were eliminated because of lack of data or because their currency basket to which they pegged was unknown. Panama was eliminated because there was no information on its money base.

Appendix 2: Exchange Rate Regime per country per year

The data is presented in table A2.

Appendix 3: IFS vs. K-means classification

The tables A3.1 through A3.9 correspond to the comparison with the IMF classification and are presented in order per year.

Table 2: Cluster boundaries

	Average monthly volatility in the exchange rate		Average monthly volatility in the change of the exchange rate		Average monthly volatility in international reserves (relative to monetary base)	
1st Round Boundaries						
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Float	1.1%	4.9%	0.2%	6.9%	0.1%	13.0%
Dirty	7.4%	12.0%	16.1%	28.9%	1.5%	18.5%
Dirty/CP	3.5%	9.8%	0.9%	15.1%	2.2%	28.6%
Fixed	0.0%	4.5%	0.0%	8.3%	12.4%	41.8%
2nd Round Boundaries						
Float	0.5%	1.4%	0.1%	1.9%	0.1%	5.4%
Dirty	0.6%	1.3%	0.6%	1.7%	4.8%	12.0%
Dirty/CP	0.3%	1.2%	0.1%	1.0%	4.3%	12.4%
Float	0.0%	0.3%	0.0%	0.3%	5.7%	12.7%

Table 3: Exchange Rate Classification, whole sample

1st Round Classification (without outliers) Total number of cases=933	
Exchange Regime	Number of cases
Irrelevants	547
Float	204
Dirty	21
Dirty/Crawling Peg	41
Fixed	120
2nd Round Classification Total number of cases=547	
Exchange Regime	Number of cases
Irrelevants	221
Float	69
Dirty	45
Dirty/Crawling Peg	74
Fixed	138
Final Classification Total number of cases=955	
Exchange Regime	Number of cases
Irrelevants	221
Float	273
Dirty	69
Dirty/Crawling Peg	124
Fixed	268

Table 4a: Exchange Rate Regimes per year
All cases

	Irrelevant	Float	Dirty	Dirty/CP	Fix	Total
Number of cases						
1990	25	27	6	17	22	97
1991	28	26	2	18	25	99
1992	23	29	5	14	33	104
1993	25	33	8	9	31	106
1994	21	24	24	11	26	106
1995	22	38	10	10	31	111
1996	24	32	5	15	35	111
1997	26	30	4	16	35	111
1998	27	34	5	14	30	110
Total	221	273	69	124	268	955
% Participation						
1990	26%	28%	6%	18%	23%	100%
1991	28%	26%	2%	18%	25%	100%
1992	22%	28%	5%	13%	32%	100%
1993	24%	31%	8%	8%	29%	100%
1994	20%	23%	23%	10%	25%	100%
1995	20%	34%	9%	9%	28%	100%
1996	22%	29%	5%	14%	32%	100%
1997	23%	27%	4%	14%	32%	100%
1998	25%	31%	5%	13%	27%	100%

Table 4b: Exchange Rate Regimes per year
Only Irrelevants

	Irrelevant	Float	Dirty	Dirty/CP	Fix	Total
Number of cases						
1990	25	8	3	9	12	57
1991	28	4	1	9	10	52
1992	23	5	4	8	15	55
1993	25	7	7	6	16	61
1994	21	6	7	9	8	51
1995	22	11	9	6	20	68
1996	24	8	5	11	20	68
1997	26	10	4	9	20	69
1998	27	10	5	7	17	66
Total	221	69	45	74	138	547
% Participation						
1990	44%	14%	5%	16%	21%	100%
1991	54%	8%	2%	17%	19%	100%
1992	42%	9%	7%	15%	27%	100%
1993	41%	11%	11%	10%	26%	100%
1994	41%	12%	14%	18%	16%	100%
1995	32%	16%	13%	9%	29%	100%
1996	35%	12%	7%	16%	29%	100%
1997	38%	14%	6%	13%	29%	100%
1998	41%	15%	8%	11%	26%	100%

Table 5: IFS vs. K-means

	Number of coincidences	Fixers which do not fix	Floaters which do not float	Total number of cases	"Deeds are not your words"
1990	25	11	9	66	30%
1991	25	9	13	69	32%
1992	33	8	11	72	26%
1993	34	4	13	76	22%
1994	23	17	16	77	43%
1995	40	8	16	87	28%
1996	40	4	13	84	20%
1997	41	3	11	81	17%
1998	38	3	12	76	20%

Source: tables A3.1-A3.9. Inconclusives have not been considered in this table.

Table 6: Exchange Rate Regimes for Selected Countries

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Developed Economies									
ALEMANIA	Float	Float	Float	Float	Float	Float	Float	Float	Float
AUSTRALIA	Float	Float	Float	Float	Float	Float	Float(2)	Float	Float
ESTADOS UNIDOS	Float	Float	Float	Float	Float	Float	Float	Float	Float
JAPÓN	Float	Float	Float	Float	Float	Float	Float	Float	Float
CANADÁ	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float
European EMS-EMU countries									
FRANCIA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Fixed	Fixed	Dirty(2)	Dirty/CP(2)	Irrelevant	Irrelevant
ESPAÑA	Float(2)	Float(2)	Float	Float	Fixed	Float	Dirty/CP(2)	Dirty/CP(2)	Fixed(2)
IRLANDA	Fixed	Fixed	Fixed	Fixed	Fixed	Float	Fixed	Fixed	Fixed
ITALIA	Float(2)	Irrelevant	Float	Float	Float	Float	Dirty(2)	Dirty/CP(2)	Dirty/CP(2)
DINAMARCA	Dirty/CP(2)	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed(2)
AUSTRIA	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
Emerging Economies									
ARGENTINA	Dirty(3)	Dirty/CP	Fixed(2)	Fixed(2)	Irrelevant	Fixed(2)	Irrelevant	Irrelevant	Irrelevant
BRASIL	Dirty(3)	Dirty(3)	Fixed(3)	Fixed(3)	Fixed(3)	Float	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)
COREA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty(2)	Dirty/CP	Dirty/CP
CHILE	Float(2)	Irrelevant	Float	Float	Float	Float	Float(2)	Float(2)	Float(2)
INDONESIA	Dirty/CP(2)	Fixed	Fixed	Fixed(2)	Irrelevant	Irrelevant	Dirty/CP(2)	Dirty/CP	Dirty(3)
MALASIA	Dirty/CP(2)	Dirty/CP(2)	Dirty(2)	Dirty/CP(2)	Float	Float(2)	Float(2)	Float	Dirty/CP
MÉXICO	Dirty/CP(2)	Fixed	Dirty/CP(2)	Dirty/CP(2)	Fixed	Dirty/CP	Dirty(2)	Float	Float
TAILANDIA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Irrelevant	Irrelevant	Dirty/CP(2)	Irrelevant	Dirty/CP	Dirty/CP
Small Open Economies									
BAHAMAS, LAS	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
CÔTE D'IVOIRE	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
GAMBIA	Fixed	Fixed	Fixed	Float	Fixed	Dirty(2)	Float	Fixed	Dirty(2)
LESOTHO	Fixed(2)	Fixed	Fixed	Fixed(2)	Fixed	Fixed	Fixed	Fixed	Fixed
NÍGER	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed
SANTA LUCÍA	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant

Figure 1.
Average absolute monthly variation in the Nominal Exchange Rate

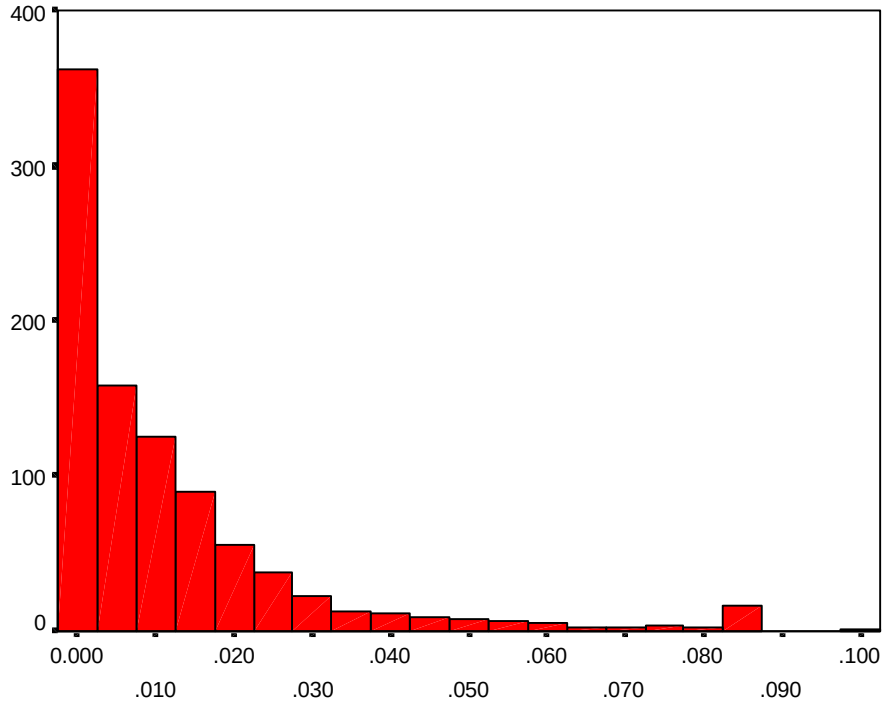


Figure 2.
Average Monthly variation in the Rate of Change of the Nominal Exchange Rate

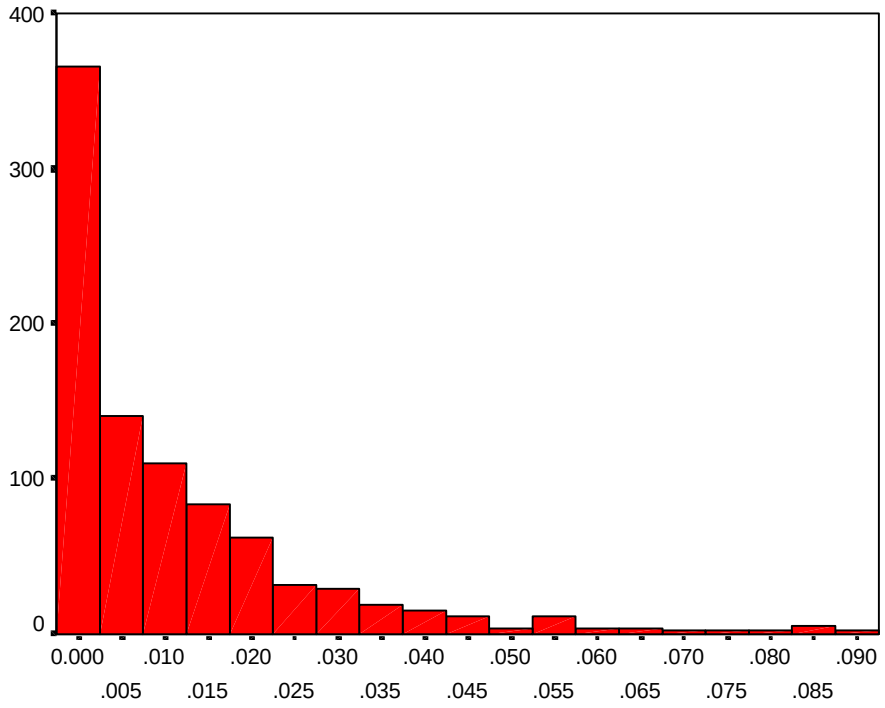


Figure3.
Average Absolute monthly variation in International Reserves

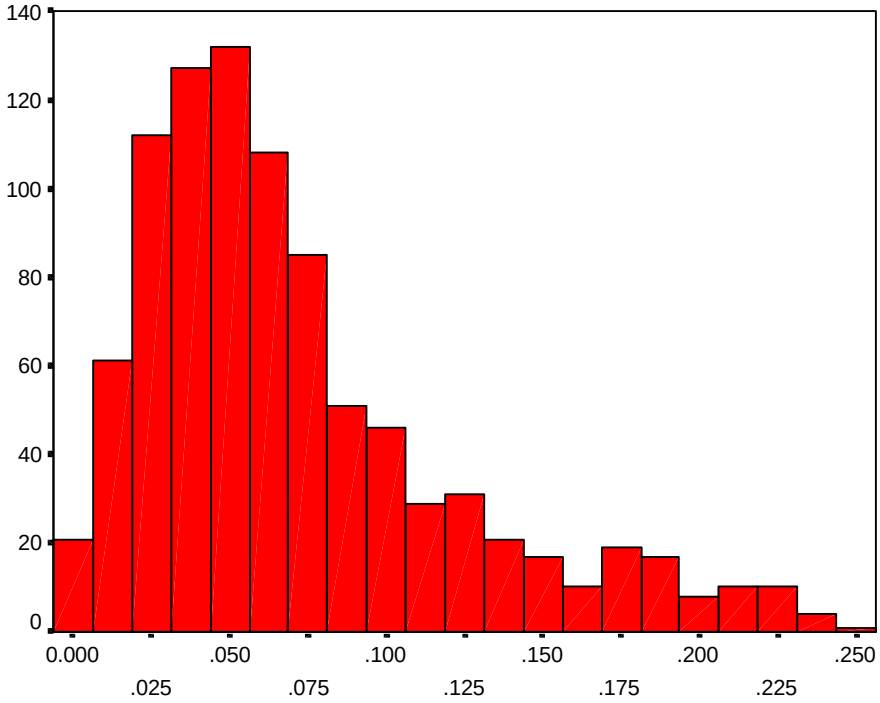


Figure 4: Exchange Rate Classification

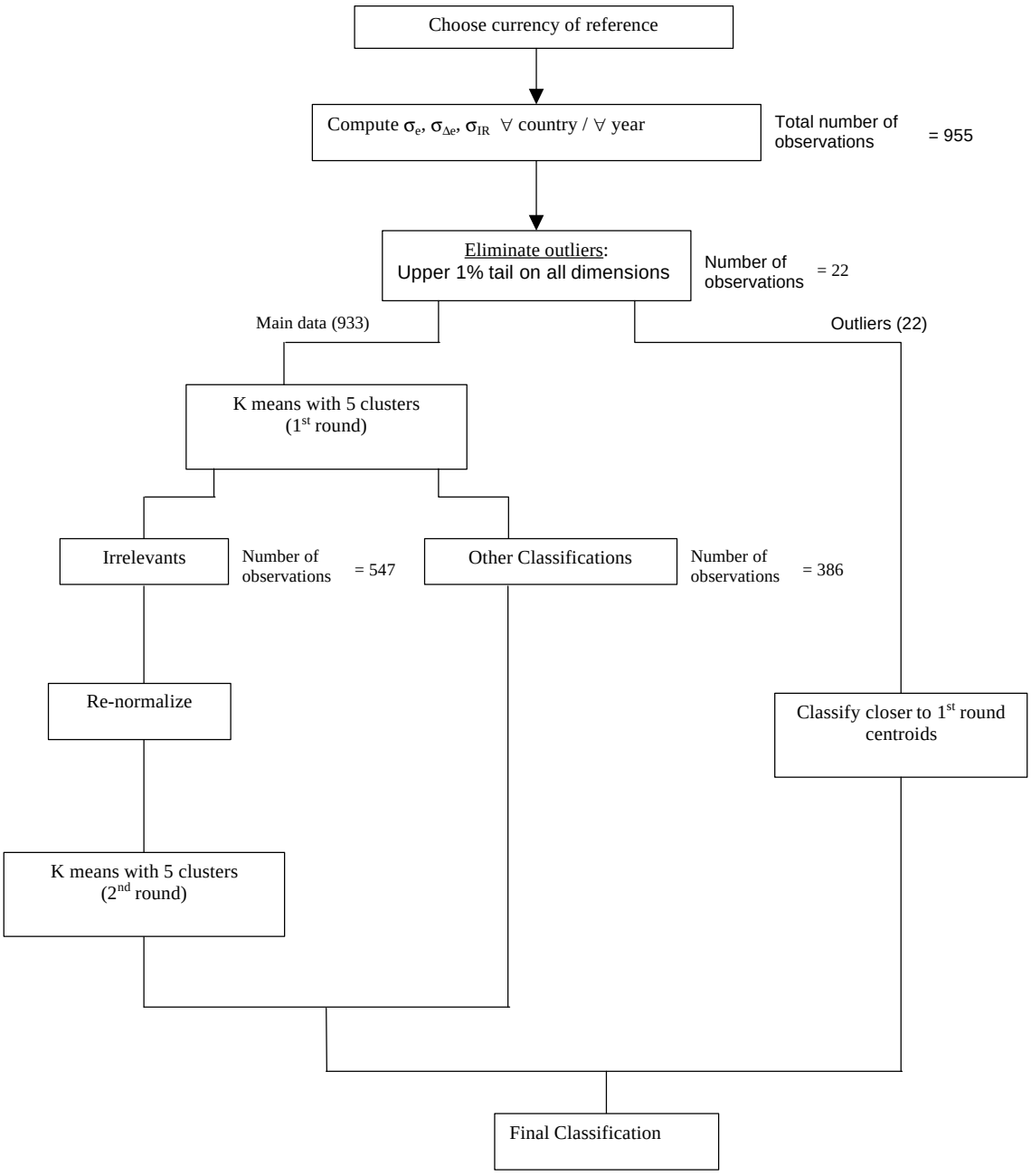
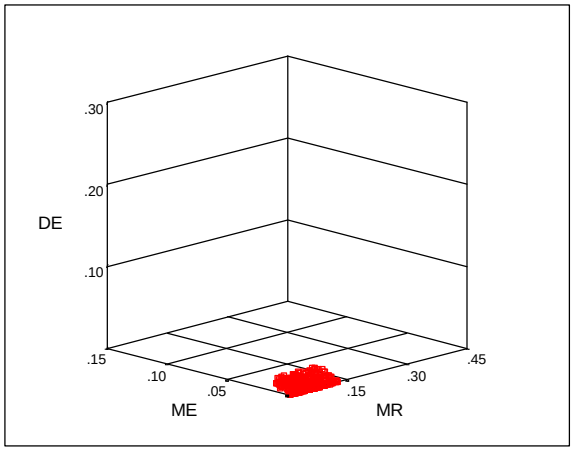
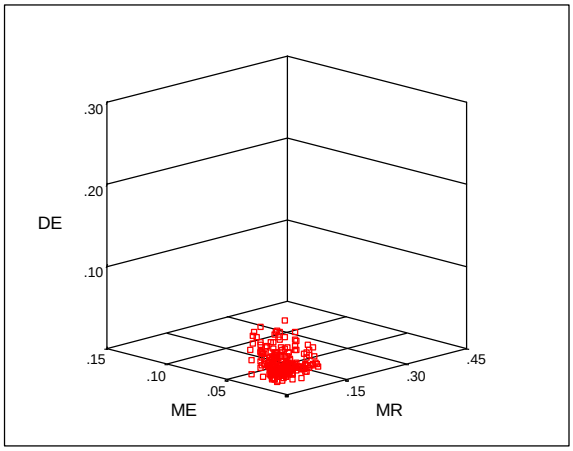


Figure 5. 1st Round Classification

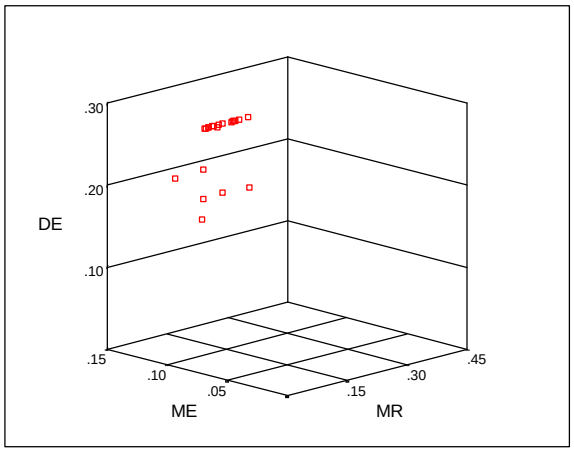
Custer 1



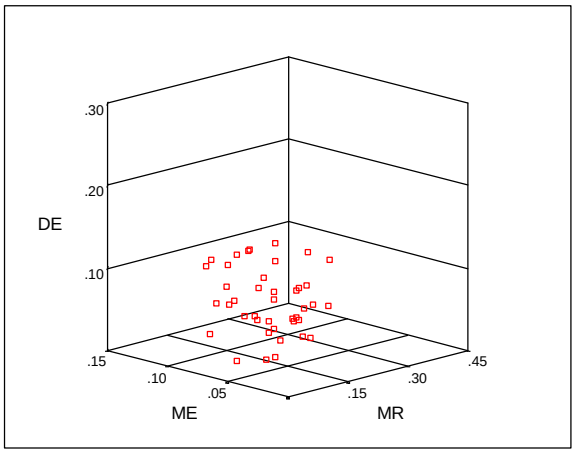
Custer 2



Custer 3



Custer 4



Custer 5

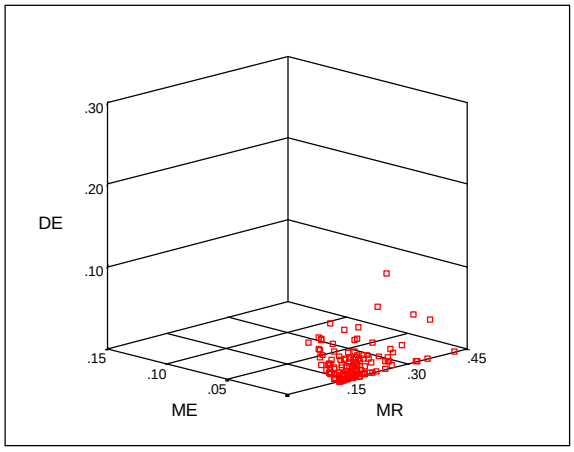
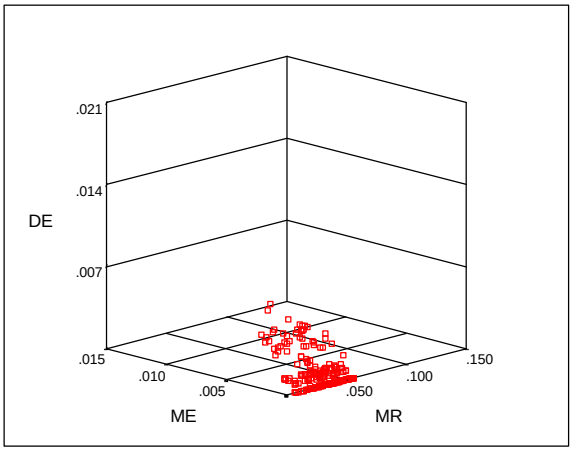
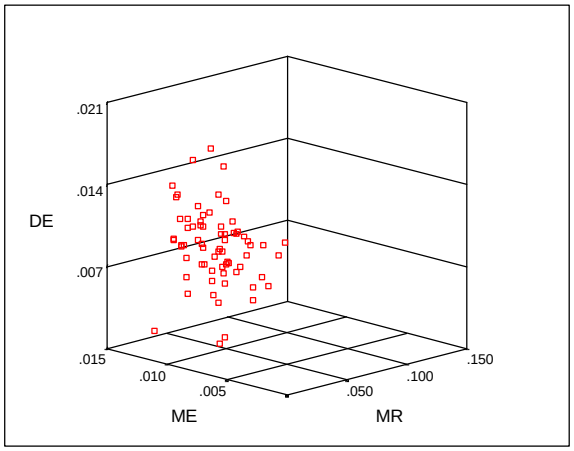


Figure 6. 2nd Round Classification

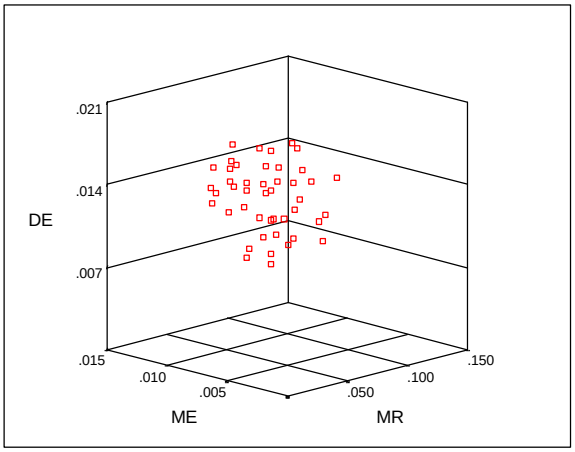
Cluster 1



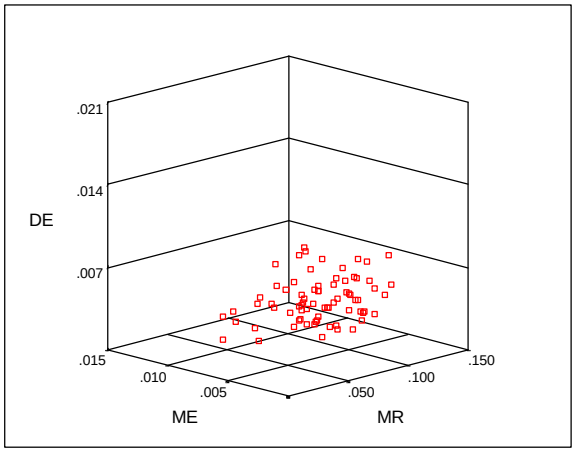
Cluster 2



Cluster 3



Cluster 4



Cluster 5

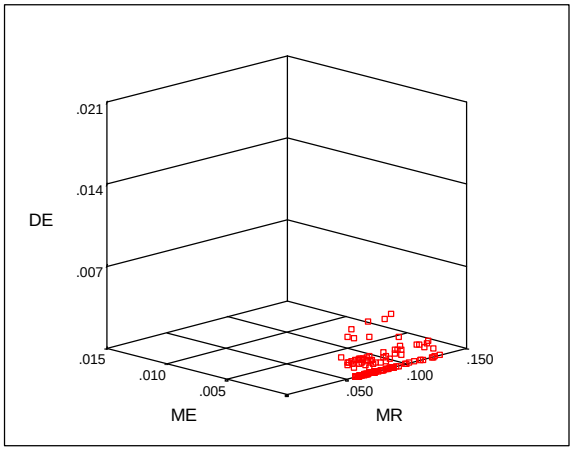


Table A2: Exchange Rate Regime per country per year

	1990	1991	1992	1993	1994	1995	1996	1997	1998
ALBANIA						Float	Float	Dirty/CP	Float
ALEMANIA	Float	Float	Float	Float	Float	Float	Float	Float	Float
ANTIGUA Y BARBUDA	Irrelevant	Irrelevant	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
ANTILLAS NEERLANDESAS	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant	Irrelevant
ARABIA SAUDITA	Fixed(2)	Fixed	Fixed(2)	Fixed(2)	Fixed(2)				
ARGENTINA	Dirty(3)	Dirty/CP	Fixed(2)	Fixed(2)	Irrelevant	Fixed(2)	Irrelevant	Irrelevant	Irrelevant
AUSTRALIA	Float	Float	Float	Float	Float	Float	Float(2)	Float	Float
AUSTRIA	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
BAHAMAS, LAS	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
BAHREIN	Fixed	Fixed(2)	Fixed	Fixed(2)	Fixed	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant
BARBADOS	Irrelevant	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant	Fixed(2)	Fixed(2)
BÉLGICA		Irrelevant	Irrelevant	Dirty(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
BELICE	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant	Fixed(2)	Fixed(2)	Irrelevant	Fixed(2)
BENIN	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
BHUTÁN	Dirty/CP(2)	Float	Fixed(2)	Float	Dirty	Dirty(2)	Float	Dirty(2)	Dirty(2)
BOLIVIA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Fixed	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Irrelevant	Irrelevant
BRASIL	Dirty(3)	Dirty(3)	Fixed(3)	Fixed(3)	Fixed(3)	Float	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)
BURKINA FASO	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Irrelevant	Irrelevant	Irrelevant	Irrelevant
CAMERÚN	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Irrelevant	Irrelevant	Fixed(2)	Irrelevant
CANADÁ	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float
CHAD	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant
CHILE	Float(2)	Irrelevant	Float	Float	Float	Float	Float(2)	Float(2)	Float(2)
COLOMBIA	Float	Float	Dirty/CP(2)	Dirty/CP(2)	Float	Float	Float	Float	Float
COMORAS	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant		Fixed(2)	Fixed(2)	Irrelevant	Irrelevant
CONGO, REP. DEL	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Irrelevant	Irrelevant	Fixed(2)	Irrelevant
CONGO, REP. DEM. DEL			Dirty(3)	Dirty(3)	Dirty(3)	Fixed(3)	Fixed(3)		
COREA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty(2)	Dirty/CP	Dirty/CP
COSTA RICA	Float	Float	Float	Float(2)	Float(2)	Float(2)	Dirty/CP(2)	Dirty/CP(2)	Float(2)
CÔTE D'IVOIRE	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
DINAMARCA	Dirty/CP(2)	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed(2)
DJIBOUTI	Fixed(2)	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
DOMINICA	Fixed(2)	Irrelevant	Irrelevant	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
ECUADOR	Float	Float	Dirty/CP	Dirty(2)	Dirty(2)	Float	Float	Float	Dirty/CP
EGIPTO	Dirty	Dirty/CP	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
EL SALVADOR	Dirty/CP	Irrelevant	Dirty(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
EMIRATOS ÁRABES UNIDOS	Irrelevant	Irrelevant	Fixed(2)	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Fixed(2)	Irrelevant
ESLOVENIA			Dirty/CP	Float	Dirty/CP(2)	Dirty(2)	Fixed	Fixed	Dirty/CP(2)
ESPAÑA	Float(2)	Float(2)	Float	Float	Fixed	Float	Dirty/CP(2)	Dirty/CP(2)	Fixed(2)
ESTADOS UNIDOS	Float	Float	Float	Float	Float	Float	Float	Float	Float
ETIOPÍA	Irrelevant	Irrelevant	Dirty(3)	Irrelevant	Float	Float(2)	Irrelevant	Float(2)	Dirty(2)
FILIPINAS	Float	Dirty/CP(2)	Dirty(2)	Fixed	Dirty(2)	Float(2)	Fixed(2)	Float	Dirty/CP
FINLANDIA			Fixed	Fixed	Fixed	Dirty(2)	Fixed	Fixed	Fixed
FRANCIA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Fixed	Fixed	Dirty(2)	Dirty/CP(2)	Irrelevant	Irrelevant
GABÓN	Fixed	Fixed(2)	Fixed(2)	Fixed(2)	Dirty	Fixed	Fixed(2)	Fixed	Fixed(2)
GAMBIA	Fixed	Fixed	Fixed	Float	Fixed	Dirty(2)	Float	Fixed	Dirty(2)
GHANA		Dirty(2)	Fixed	Float	Float	Float	Fixed	Float	Float
GRANADA	Irrelevant	Irrelevant	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
GRECIA	Float(2)	Dirty/CP(2)	Float(2)	Dirty(2)	Dirty/CP(2)	Dirty(2)	Dirty(2)	Dirty/CP(2)	Float
GUATEMALA	Dirty/CP	Float(2)	Float(2)	Float(2)	Float(2)	Float(2)	Float	Float	Dirty(2)
GUINEA ECUATORIAL	Fixed(2)	Fixed(3)	Fixed	Fixed	Dirty	Irrelevant	Irrelevant	Fixed(2)	Fixed
GUINEA-BISSAU	Fixed	Dirty/CP	Dirty/CP	Float	Float	Float	Float	Fixed	
GUYANA	Float	Dirty	Dirty/CP(2)	Dirty/CP(2)	Dirty(2)	Dirty/CP(2)	Fixed(2)	Irrelevant	Float
HAITÍ	Irrelevant					Float	Float	Float	Float
HONDURAS	Dirty	Dirty/CP(2)	Dirty(2)	Float	Float	Float	Float	Dirty/CP(2)	Dirty/CP(2)
HONG KONG, RAE DE								Fixed(2)	Fixed
INDIA	Float(2)	Float	Irrelevant	Float	Irrelevant	Float	Float	Float(2)	Float(2)
INDONESIA	Dirty/CP(2)	Fixed	Fixed	Fixed(2)	Irrelevant	Irrelevant	Dirty/CP(2)	Dirty/CP	Dirty(3)
IRLANDA	Fixed	Fixed	Fixed	Fixed	Fixed	Float	Fixed	Fixed	Fixed
ISRAEL		Float	Float	Float	Dirty/CP(2)	Dirty(2)	Float	Dirty(2)	Float
ITALIA	Float(2)	Irrelevant	Float	Float	Float	Float	Dirty(2)	Dirty/CP(2)	Dirty/CP(2)
JAMAICA	Float	Dirty/CP	Float	Float	Float(2)	Float	Float	Dirty/CP(2)	Dirty/CP(2)
JAPÓN	Float	Float	Float	Float	Float	Float	Float	Float	Float
KENYA				Dirty/CP	Dirty/CP	Float	Fixed	Float	Float
KUWAIT	Fixed(2)	Fixed	Fixed	Fixed	Fixed	Dirty(2)	Fixed	Fixed(2)	Fixed
LESOTHO	Fixed(2)	Fixed	Fixed	Fixed(2)	Fixed	Fixed	Fixed	Fixed	Fixed
LÍBANO	Fixed(3)	Fixed	Fixed(3)	Fixed(3)	Fixed(2)	Fixed(2)	Irrelevant	Irrelevant	Irrelevant
LIBIA	Irrelevant	Irrelevant	Float(2)	Float(2)	Float	Float(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)
LUXEMBURGO			Irrelevant	Dirty(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Fixed(2)
MADAGASCAR	Dirty(2)	Float	Float	Dirty(2)	Dirty	Float	Float	Float	Float
MALASIA	Dirty/CP(2)	Dirty/CP(2)	Dirty(2)	Dirty/CP(2)	Float	Float(2)	Float(2)	Float	Dirty/CP
MALDIVAS	Float(2)	Float	Float	Float(2)	Float(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant
MALÍ	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Irrelevant	Irrelevant	Irrelevant

Table A2: Exchange Rate Regime per country per year

	1990	1991	1992	1993	1994	1995	1996	1997	1998
MAURICIO						Float(2)	Dirty/CP(2)	Float(2)	Float(2)
MÉXICO	Dirty/CP(2)	Fixed	Dirty/CP(2)	Dirty/CP(2)	Fixed	Dirty/CP	Dirty(2)	Float	Float
MONGOLIA				Dirty(3)	Fixed	Dirty(2)	Dirty/CP	Float	Dirty(2)
MYANMAR	Float	Float	Float	Float(2)	Float	Float	Float(2)	Float(2)	Float(2)
NAMIBIA		Fixed	Fixed	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
NEPAL	Float(2)	Float	Irrelevant	Float	Irrelevant	Float(2)	Float(2)	Irrelevant	Irrelevant
NÍGER	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed
NIGERIA	Fixed	Dirty/CP	Dirty	Float	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
NORUEGA	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
NUEVA ZELANDIA	Float	Float	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Float
OMÁN	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
PAÍSES BAJOS	Irrelevant	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Fixed(2)	Dirty/CP(2)	Irrelevant	Irrelevant
PAPUA NUEVA GUINEA					Fixed	Fixed	Fixed	Fixed	Fixed
PARAGUAY	Float	Dirty(2)	Float	Float(2)	Dirty/CP(2)	Irrelevant	Dirty/CP(2)	Dirty(2)	Float
PERÚ	Dirty(3)	Dirty/CP	Dirty/CP	Float	Dirty(2)	Float(2)	Float(2)	Dirty/CP(2)	Float(2)
POLONIA	Float	Float	Float	Float	Float	Float	Dirty(2)	Float	Float
PORTUGAL	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
QATAR	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)
REINO UNIDO	Float	Float(2)	Float	Float	Float(2)	Float	Float	Float	Float
REPÚBLICA CENTROAFRICAI	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Irrelevant	Irrelevant	Irrelevant	Irrelevant
REPÚBLICA DOMINICANA	Dirty/CP	Float	Float(2)	Irrelevant	Dirty(2)	Float(2)	Float(2)	Float(2)	Float(2)
RWANDA	Dirty/CP	Fixed(2)	Float	Irrelevant		Dirty	Irrelevant	Float	Float
SAINT KITTS Y NEVIS	Irrelevant	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)	Irrelevant	Fixed(2)	Irrelevant	Fixed(2)
SAN VICENTE Y LAS GRANAI	Fixed(2)	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Fixed(2)	Fixed(2)	Fixed(2)
SANTA LUCÍA	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant
SENEGAL	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
SIERRA LEONA	Dirty/CP	Dirty/CP	Float	Dirty(2)	Dirty/CP(2)	Dirty/CP	Float	Dirty/CP	Float
SUDÁFRICA	Dirty(2)	Float	Float	Dirty(2)	Dirty(2)	Dirty/CP(2)	Float	Float	Float
SUECIA	Float	Dirty/CP	Fixed	Fixed	Float	Float	Float	Dirty(2)	Float
SUIZA	Float	Float	Float	Float	Float	Float	Float	Float	Float
SWAZILANDIA	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed(2)	Fixed	Fixed	Fixed
TAILANDIA	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Irrelevant	Irrelevant	Dirty/CP(2)	Irrelevant	Dirty/CP	Dirty/CP
TANZANÍA			Fixed(3)	Float	Dirty(2)	Float	Float	Float(2)	Float(2)
TOGO	Irrelevant	Irrelevant	Irrelevant	Fixed(2)	Dirty	Fixed(2)	Fixed(2)	Fixed(2)	Fixed(2)
TRINIDAD Y TABAGO	Fixed(2)	Fixed(2)	Fixed(2)	Dirty/CP	Dirty/CP(2)	Dirty/CP(2)	Dirty/CP(2)	Irrelevant	Irrelevant
TURQUÍA	Float	Float	Float	Float	Dirty	Float	Dirty/CP	Dirty/CP	Fixed
URUGUAY	Dirty/CP	Float	Float	Float	Float	Float	Float	Float(2)	Float(2)
VENEZUELA	Float	Float	Float	Float	Dirty/CP	Dirty/CP	Dirty/CP	Fixed	Float
YEMEN, REPÚBLICA DEL	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Irrelevant	Dirty(3)	Dirty(3)	Float(2)	Float(2)
ZAMBIA						Fixed	Fixed	Fixed	Fixed
ZIMBABWE					Fixed	Fixed	Fixed	Dirty/CP	Dirty/CP

Table A3.1

Kmeans Classification 1990	IFS Classification: Fix	Bands	Dirty	Float
Inconclusive	ANTIGUA Y BARBUDA ANTILLAS NEERLANDESAS AUSTRIA BARBADOS BELICE BENIN BURKINA FASO CAMERÚN CONGO, REP. DEL CÔTE D'IVOIRE ETIOPÍA GRANADA HAITÍ LIBIA MALÍ NÍGER REPÚBLICA CENTROAFRICANA SAINT KITTS Y NEVIS SANTA LUCÍA SENEGAL TOGO YEMEN, REPÚBLICA DEL	EMIRATOS ÁRABES UNIDOS PAÍSES BAJOS QATAR		
Floats	GUYANA MYANMAR NEPAL (2) POLONIA SUECIA	ESPAÑA (2) ITALIA (2)	COLOMBIA COSTA RICA CHILE (2) ECUADOR GRECIA (2) INDIA (2) TURQUÍA	ALEMANIA AUSTRALIA CANADÁ (2) ESTADOS UNIDOS FILIPINAS JAPÓN MALDIVAS (2) NUEVA ZELANDIA PARAGUAY SUIZA VENEZUELA
Dirties	ZIMBABWE		EGIPTO MADAGASCAR (2)	ARGENTINA (3) GHANA (2) SUDÁFRICA
Dirties/CP	BHUTÁN (2) FINLANDIA MALASIA (2) RWANDA TAILANDIA (2)	DINAMARCA (2) FRANCIA (2)	COREA (2) INDONESIA (2) MÉXICO (2)	BOLIVIA (2) GUATEMALA URUGUAY
Fixes	BAHAMAS, LAS (2) CHAD (2) COMORAS (2) DJIBOUTI (2) DOMINICA (2) GABÓN GUINEA ECUATORIAL (2) KUWAIT (2) LESOTHO (2) NORUEGA OMÁN (2) SAN VICENTE Y LAS GRANADINAS (2) SWAZILANDIA TRINIDAD Y TOBAGO (2)	ARABIA SAUDITA (2) BAHREIN IRLANDA	GUINEA-BISSAU PORTUGAL	GAMBIA LÍBANO (3) NIGERIA

Table A3.2

K means Classification	1991	IFS Classification: Fix	Bands	Dirty	Float
	Inconclusive	ANTIGUA Y BARBUDA AUSTRIA BARBADOS BENIN BURKINA FASO CAMERÚN CHAD CONGO, REP. DEL CÔTE D'IVOIRE DOMINICA ETIOPÍA GRANADA LIBIA MALÍ NÍGER REPÚBLICA CENTROAFRICANA SAINT KITTS Y NEVIS SAN VICENTE Y LAS GRANADINAS SANTA LUCÍA SENEGAL TOGO YEMEN, REPÚBLICA DEL	EMIRATOS ÁRABES UNIDOS BÉLGICA ITALIA QATAR	CHILE	EL SALVADOR
	Floats	BHUTÁN KENYA MARRUECOS MYANMAR NEPAL	ESPAÑA (2) REINO UNIDO (2)	COLOMBIA COSTA RICA ECUADOR INDIA MADAGASCAR TURQUÍA	ALEMANIA AUSTRALIA CANADÁ (2) ESTADOS UNIDOS GUATEMALA (2) JAPÓN NUEVA ZELANDIA REPÚBLICA DOMINICANA SUDÁFRICA SUIZA URUGUAY VENEZUELA
	Dirties				BRASIL (3) PARAGUAY (2) GUYANA
	Dirties/CP	ARGENTINA MALASIA (2) SUECIA TAILANDIA (2)	FRANCIA (2) PAÍSES BAJOS (2)	COREA (2) EGIPTO GRECIA (2) GUINEA-BISSAU HONDURAS (2)	BOLIVIA (2) FILIPINAS (2) JAMAICA NIGERIA PERÚ SIERRA LEONA
	Fixes	ANTILLAS NEERLANDESAS (2) BAHAMAS, LAS (2) BELICE (2) COMORAS (2) DJIBOUTI (2) GABÓN (2) GUINEA ECUATORIAL (3) KUWAIT LESOTHO NORUEGA RWANDA (2) SWAZILANDIA TRINIDAD Y TOBAGO (2)	ARABIA SAUDITA BAHREIN (2) DINAMARCA IRLANDA	INDONESIA MÉXICO PORTUGAL	GAMBIA GHANA LÍBANO NAMIBIA

Table A3.3

Kmeans Classification	1992	IFS Classification: Fix	Bands	Dirty	Float
	Inconclusive	AUSTRIA BÉLGICA BENIN BURKINA FASO CAMERÚN CHAD CONGO, REP. DEL CÔTE D'IVOIRE DJIBOUTI DOMINICA MALÍ NEPAL NÍGER REPÚBLICA CENTROAFRICANA SAN VICENTE Y LAS GRANADINAS SANTA LUCÍA SENEGAL TOGO YEMEN, REPÚBLICA DEL	LUXEMBURGO QATAR	EGIPTO INDIA	
	Floats	ESPAÑA LIBIA (2) MYANMAR RWANDA		CHILE GRECIA (2) ISRAEL MADAGASCAR MALDIVAS POLONIA TURQUÍA	ALEMANIA AUSTRALIA CANADÁ (2) COSTA RICA ESTADOS UNIDOS GHANA GUATEMALA (2) JAMAICA JAPÓN PARAGUAY REPÚBLICA DOMINICANA (2) SIERRA LEONA SUDÁFRICA SUIZA VENEZUELA
	Dirties	CONGO, REP. DEM. DEL (3) ETIOPÍA (3) MALASIA (2)			EL SALVADOR (2) FILIPINAS (2) HONDURAS (2) NIGERIA
	Dirties/CP	TAILANDIA (2)	FRANCIA (2) PAÍSES BAJOS (2)	COLOMBIA (2) COREA (2) ECUADOR GUINEA-BISSAU MÉXICO (2)	BOLIVIA (2) GUYANA (2) PERÚ
	Fixes	ANTIGUA Y BARBUDA (2) ANTILLAS NEERLANDESAS (2) ARGENTINA (2) BAHAMAS, LAS (2) BARBADOS (2) BELICE (2) BHUTÁN (2) COMORAS (2) GABÓN (2) GRANADA (2) GUINEA ECUATORIAL KUWAIT LESOTHO OMÁN (2) SAINT KITTS Y NEVIS (2) SWAZILANDIA TANZANÍA (3) TRINIDAD Y TOBAGO (2)	ARABIA SAUDITA (2) BAHREIN DINAMARCA EMIRATOS ÁRABES UNIDOS (2) IRLANDA	INDONESIA	BRASIL (3) GAMBIA LÍBANO (3) NUEVA ZELANDIA

Table A3.4

Kmeans Classification	1993	IFS Classification: Fix	Bands	Dirty	Float
	Inconclusive	ANTIGUA Y BARBUDA AUSTRIA BENIN BURKINA FASO CAMERÚN CHAD COMORAS CONGO, REP. DEL CÔTE D'IVOIRE DJIBOUTI GRANADA MALÍ NÍGER REPÚBLICA CENTROAFRICANA RWANDA SAN VICENTE Y LAS GRANADINAS SANTA LUCÍA SENEGAL TAILANDIA YEMEN, REPÚBLICA DEL	QATAR	EGIPTO	EL SALVADOR REPÚBLICA DOMINICANA
	Floats	BHUTÁN LIBIA (2) MYANMAR (2)	ESPAÑA	CHILE ESLOVENIA GUINEA-BISSAU ISRAEL MALDIVAS (2) POLONIA TURQUÍA URUGUAY	ALEMANIA AUSTRALIA CANADÁ (2) COSTA RICA (2) ESTADOS UNIDOS GAMBIA GHANA GUATEMALA (2) HONDURAS INDIA ITALIA JAMAICA JAPÓN NIGERIA PARAGUAY (2) PERÚ REINO UNIDO SUIZA
	Dirties	CONGO, REP. DEM. DEL (3)	BÉLGICA (2) LUXEMBURGO (2)	ECUADOR (2) MADAGASCAR (2)	GRECIA (2) SIERRA LEONA (2) SUDÁFRICA (2)
	Dirties/CP		PAÍSES BAJOS (2)	COLOMBIA (2) COREA (2) MÉXICO (2)	GUYANA (2) TRINIDAD Y TOBAGO
	Fixes	ANTILLAS NEERLANDESAS (2) ARGENTINA (2) BAHAMAS, LAS (2) BARBADOS (2) BELICE (2) DOMINICA (2) GABÓN (2) GUINEA ECUATORIAL KUWAIT LESOTHO (2) NAMIBIA (2) OMÁN (2) PAPUA NUEVA GUINEA SAINT KITTS Y NEVIS (2) SWAZILANDIA TOGO (2)	ARABIA SAUDITA (2) BAHREIN (2) DINAMARCA EMIRATOS ÁRABES UNIDOS (2) FRANCIA IRLANDA PORTUGAL	INDONESIA (2)	BOLIVIA BRASIL (3) FILIPINAS FINLANDIA LÍBANO (3) NORUEGA NUEVA ZELANDIA SUECIA

Table A3.5

		IFS Classification			
	1994	**Fix**	**Bands**	**Dirty**	**Float**
K means Classification	**Inconclusive**	ANTIGUA Y BARBUDA ARGENTINA BELICE DJIBOUTI DOMINICA GRANADA NEPAL NIGERIA SAN VICENTE Y LAS GRANADINAS SANTA LUCÍA TAILANDIA YEMEN, REPÚBLICA DEL	BÉLGICA EMIRATOS ÁRABES UNIDOS LUXEMBURGO QATAR	EGIPTO INDONESIA	EL SALVADOR INDIA
	Floats	LIBIA MYANMAR		COLOMBIA CHILE GUINEA-BISSAU MALASIA MALDIVAS (2) POLONIA URUGUAY	ALEMANIA AUSTRALIA CANADÁ (2) COSTA RICA (2) ESTADOS UNIDOS ETIOPÍA GHANA GUATEMALA (2) ITALIA JAMAICA (2) JAPÓN REINO UNIDO (2) SUECIA SUIZA
	Dirties	BENIN BHUTÁN BURKINA FASO CAMERÚN CHAD CONGO, REP. DEL CONGO, REP. DEM. DEL (3) CÔTE D'IVOIRE GABÓN GUINEA ECUATORIAL MALÍ NÍGER REPÚBLICA CENTROAFRICANA SENEGAL TOGO		ECUADOR (2) TURQUÍA	FILIPINAS (2) GUYANA (2) PERÚ (2) SUDÁFRICA (2) TANZANÍA (2)
	Dirties/CP		PAÍSES BAJOS (2)	COREA (2) ESLOVENIA (2) GRECIA (2) ISRAEL (2)	BOLIVIA (2) KENYA PARAGUAY (2) SIERRA LEONA (2) TRINIDAD Y TOBAGO (2)
	Fixes	ANTILLAS NEERLANDESAS (2) BAHAMAS, LAS (2) BARBADOS (2) KUWAIT LESOTHO NAMIBIA (2) OMÁN SAINT KITTS Y NEVIS (2) SWAZILANDIA	ARABIA SAUDITA (2) BAHREIN DINAMARCA ESPAÑA FRANCIA IRLANDA PORTUGAL		FINLANDIA GAMBIA LÍBANO (2) MONGOLIA NORUEGA NUEVA ZELANDIA

Table A3.6

		IFS Classification			
	1995	**Fix**	**Bands**	**Dirty**	**Float**
Kmenas Classification	**Inconclusive**	ANTIGUA Y BARBUDA BURKINA FASO CAMERÚN CONGO, REP. DEL DJIBOUTI DOMINICA GRANADA GUINEA ECUATORIAL REPÚBLICA CENTROAFRICANA SAINT KITTS Y NEVIS SAN VICENTE Y LAS GRANADINAS SANTA LUCÍA	AUSTRIA BÉLGICA EMIRATOS ÁRABES UNIDOS LUXEMBURGO QATAR	EGIPTO INDONESIA MALDIVAS	PARAGUAY
	Floats	LIBIA (2) MYANMAR NEPAL (2)	ESPAÑA IRLANDA	BRASIL CHILE COLOMBIA ECUADOR GUINEA-BISSAU HONDURAS MALASIA (2) MAURICIO (2) POLONIA REPÚBLICA DOMINICANA (2) TURQUÍA URUGUAY	ALBANIA ALEMANIA AUSTRALIA CANADÁ (2) ESTADOS UNIDOS ETIOPÍA (2) FILIPINAS (2) GUATEMALA (2) HAITÍ INDIA ITALIA JAMAICA JAPÓN KENYA MADAGASCAR PERÚ (2) REINO UNIDO SUECIA SUIZA TANZANÍA
	Dirties	BHUTÁN (2) KUWAIT (2) YEMEN, REPÚBLICA DEL (3)	FRANCIA (2)	ESLOVENIA (2) GRECIA (2) ISRAEL (2)	FINLANDIA (2) GAMBIA (2) MONGOLIA (2) RWANDA
	Dirties/CP	TAILANDIA (2) VENEZUELA		COREA (2)	BOLIVIA (2) GUYANA (2) MÉXICO SIERRA LEONA SUDÁFRICA (2) TRINIDAD Y TOBAGO (2)
	Fixes	ANTILLAS NEERLANDESAS (2) ARGENTINA (2) BAHAMAS, LAS (2) BARBADOS (2) BELICE (2) BENIN (2) CHAD (2) COMORAS (2) CONGO, REP. DEM. DEL (3) CÔTE D'IVOIRE (2) GABÓN LESOTHO MALÍ (2) NAMIBIA (2) NÍGER (2) NIGERIA (2) OMÁN (2) SENEGAL (2) SWAZILANDIA (2) TOGO (2)	BAHREIN (2) DINAMARCA PAÍSES BAJOS (2) PORTUGAL		GHANA LÍBANO (2) NUEVA ZELANDIA PAPUA NUEVA GUINEA ZAMBIA ZIMBABWE

Table A3.7

		IFS Classification			
	1996	**Fix**	**Bands**	**Dirty**	**Float**
K means Classification	**Inconclusive**	ANTIGUA Y BARBUDA ARGENTINA BARBADOS BURKINA FASO CAMERÚN CONGO, REP. DEL DJIBOUTI DOMINICA GRANADA GUINEA ECUATORIAL MALÍ REPÚBLICA CENTROAFRICANA SANTA LUCÍA TAILANDIA	AUSTRIA BÉLGICA EMIRATOS ÁRABES UNIDOS LUXEMBURGO	EGIPTO EL SALVADOR MALDIVAS	ETIOPÍA LÍBANO RWANDA
	Floats	BHUTÁN MYANMAR (2) NEPAL (2)		COLOMBIA CHILE (2) ECUADOR GUINEA-BISSAU HONDURAS ISRAEL MALASIA (2) REPÚBLICA DOMINICANA (2) URUGUAY	ALBANIA ALEMANIA AUSTRALIA (2) CANADÁ (2) ESTADOS UNIDOS GAMBIA GHANA GUATEMALA HAITÍ INDIA JAMAICA JAPÓN MADAGASCAR PERÚ (2) REINO UNIDO SIERRA LEONA SUDÁFRICA SUECIA SUIZA TANZANÍA
	Dirties			COREA (2) GRECIA (2) POLONIA (2)	MÉXICO (2) YEMEN, REPÚBLICA DEL (3)
	Dirties/CP	LIBIA (2)	ESPAÑA (2) FRANCIA (2) PAÍSES BAJOS (2)	BRASIL (2) COSTA RICA (2) INDONESIA (2) MAURICIO (2) TURQUÍA	BOLIVIA (2) MONGOLIA PARAGUAY (2) TRINIDAD Y TOBAGO (2)
	Fixes	ANTILLAS NEERLANDESAS (2) BAHAMAS, LAS (2) BELICE (2) BENIN (2) CHAD (2) COMORAS (2) CONGO, REP. DEM. DEL (3) CÔTE D'IVOIRE (2) GABÓN (2) KUWAIT LESOTHO NAMIBIA (2) NÍGER (2) NIGERIA (2) OMÁN (2) SAINT KITTS Y NEVIS (2) SAN VICENTE Y LAS GRANADINAS (2) SENEGAL (2) SWAZILANDIA TOGO (2)	BAHREIN (2) DINAMARCA IRLANDA PORTUGAL QATAR (2)	ESLOVENIA NORUEGA	FILIPINAS (2) GUYANA (2) KENYA NUEVA ZELANDIA PAPUA NUEVA GUINEA ZAMBIA ZIMBABWE

Table A3.8

K means Classification	1997	IFS Classification: Fix	Bands	Dirty	Float
	Inconclusive	ANTIGUA Y BARBUDA ANTILLAS NEERLANDESAS ARGENTINA BELICE BURKINA FASO COMORAS DJIBOUTI DOMINICA GRANADA MALÍ NEPAL REPÚBLICA CENTROAFRICANA SAINT KITTS Y NEVIS SANTA LUCÍA	AUSTRIA BÉLGICA FRANCIA LUXEMBURGO PAÍSES BAJOS	EGIPTO EL SALVADOR MALDIVAS	BOLIVIA GUYANA LÍBANO TRINIDAD Y TABAGO
	Floats	MYANMAR (2)		COLOMBIA CHILE (2) ECUADOR MALASIA MAURICIO (2) POLONIA REPÚBLICA DOMINICANA (2) URUGUAY (2)	ALEMANIA AUSTRALIA CANADÁ (2) ESTADOS UNIDOS ETIOPÍA (2) FILIPINAS GHANA GUATEMALA HAITÍ INDIA (2) JAPÓN KENYA MADAGASCAR MÉXICO MONGOLIA REINO UNIDO RWANDA SUDÁFRICA SUIZA TANZANÍA (2) YEMEN, REPÚBLICA DEL (2)
	Dirties	BHUTÁN (2)		ISRAEL (2)	PARAGUAY (2) SUECIA (2)
	Dirties/CP	LIBIA (2)	ESPAÑA (2) ITALIA (2)	BRASIL (2) COSTA RICA (2) GRECIA (2) HONDURAS (2) TURQUÍA	ALBANIA JAMAICA (2) PERÚ (2) SIERRA LEONA ZIMBABWE
	Fixes	BAHAMAS, LAS (2) BARBADOS (2) BENIN (2) CAMERÚN (2) CHAD (2) CONGO, REP. DEL (2) CÔTE D'IVOIRE (2) GABÓN GUINEA ECUATORIAL (2) HONG KONG, RAE DE (2) KUWAIT (2) LESOTHO NAMIBIA (2) NÍGER (2) NIGERIA (2) OMÁN (2) SAN VICENTE Y LAS GRANADINAS (2) SENEGAL (2) SWAZILANDIA TOGO (2)	BAHREIN (2) DINAMARCA EMIRATOS ÁRABES UNIDOS (2) FINLANDIA IRLANDA PORTUGAL QATAR (2)	ESLOVENIA NORUEGA VENEZUELA	GAMBIA NUEVA ZELANDIA PAPUA NUEVA GUINEA ZAMBIA

Table A3.9

Kmeans Classification 1998	IFS Classification: Fix	Bands	Dirty	Float
Inconclusive	ANTIGUA Y BARBUDA ANTILLAS NEERLANDESAS ARGENTINA BURKINA FASO CAMERÚN COMORAS CONGO, REP. DEL CHAD DJIBOUTI DOMINICA GRANADA MALÍ NEPAL REPÚBLICA CENTROAFRICANA SANTA LUCÍA	AUSTRIA BAHREIN BÉLGICA EMIRATOS ÁRABES UNIDOS FRANCIA PAÍSES BAJOS	EGIPTO EL SALVADOR MALDIVAS	LÍBANO TRINIDAD Y TOBAGO
Floats	MYANMAR (2)		COLOMBIA COSTA RICA (2) CHILE (2) ISRAEL MAURICIO (2) POLONIA REPÚBLICA DOMINICANA (2) URUGUAY (2) VENEZUELA	ALBANIA ALEMANIA AUSTRALIA CANADÁ ESTADOS UNIDOS GUYANA HAITÍ INDIA (2) JAPÓN MADAGASCAR MÉXICO NUEVA ZELANDIA PERÚ (2) REINO UNIDO RWANDA SIERRA LEONA SUDÁFRICA SUECIA SUIZA TANZANÍA (2) YEMEN, REPÚBLICA DEL (2)
Dirties	BHUTÁN (2)			GAMBIA (2) GUATEMALA (2) INDONESIA (3) MONGOLIA (2)
Dirties/CP	LIBIA (2)	ITALIA (2)	BRASIL (2) ECUADOR ESLOVENIA (2) HONDURAS (2)	COREA FILIPINAS GHANA (2) JAMAICA (2) ZIMBABWE
Fixes	BAHAMAS, LAS (2) BARBADOS (2) BELICE (2) BENIN (2) CÔTE D'IVOIRE (2) GABÓN (2) HONG KONG, RAE DE KUWAIT LESOTHO NAMIBIA (2) NÍGER OMÁN (2) SAINT KITTS Y NEVIS (2) SAN VICENTE Y LAS GRANADINAS (2) SENEGAL (2) SWAZILANDIA TOGO (2)	DINAMARCA (2) ESPAÑA (2) FINLANDIA IRLANDA LUXEMBURGO (2) PORTUGAL QATAR (2)	NORUEGA TURQUÍA	GUINEA ECUATORIAL PAPUA NUEVA GUINEA ZAMBIA

Table A3.10

		K means Classification	IFS Classification
1990	JAMAICA	Floats	Fix / Float
	REINO UNIDO	Floats	Float / Bands
	PERÚ	Dirties	Fix / Float
	HONDURAS	Dirties	Fix / Dirty
	BRASIL	Dirties	Dirty / float
	EL SALVADOR	Dirties/CP	Dirty / Float
	REPÚBLICA DOMINICANA	Dirties/CP	Dirty / Fix
	SIERRA LEONA	Dirties/CP	Fix / Float
1991	ISRAEL	Floats	Fix / Dirty
	MALDIVAS	Floats	Float / Dirty
	POLONIA	Floats	Fix / Dirty
1992	ITALIA	Floats	Bands / Float
	REINO UNIDO	Floats	Bands / Float
	URUGUAY	Floats	Float / Dirty
	FINLANDIA	Fixes	Fix / Float
	NAMIBIA	Fixes	Float / Fix
	NORUEGA	Fixes	Fix / Float
	PORTUGAL	Fixes	Dirty / Bands
	SUECIA	Fixes	Fix / Float
1993	ETIOPÍA	Inconclusive	Fix / Float
	TANZANIA	Floats	Fix / Float
	VENEZUELA	Floats	Float / Dirty
	NEPAL	Floats	Float / Fix
	MONGOLIA	Dirties	Fix / Float
	KENYA	Dirties/CP	Fix / Float
	MALASIA	Dirties/CP	Fix / Dirty
1994	AUSTRIA	Inconclusive	Fix / Band
	HONDURAS	Floats	Float / Dirty
	MADAGASCAR	Dirties	Dirty / Float
	REPÚBLICA DOMINICANA	Dirties	Float / Dirty
	VENEZUELA	Dirties/CP	Dirty / Fix
	BRASIL	Fixes	Float / Dirty
	PAPUA NUEVA GUINEA	Fixes	Fix / Float
	ZIMBABWE	Fixes	Fix / Float
1995	EL SALVADOR	Inconclusive	Float / Dirty
	COSTA RICA	Floats	Float / Dirty
	NORUEGA	Fixes	Float / Dirty
1996	ITALIA	Dirties	Float / Bands
	VENEZUELA	Dirties/CP	Fix / Dirty
	FINLANDIA	Fixes	Float / Bands
1997	COREA	Dirties/CP	Dirty / Float
	INDONESIA	Dirties/CP	Dirty / Float
	TAILANDIA	Dirties/CP	Fix / Dirty
	GUINEA- BISSAU	Fixes	Dirty / Fix
1998	BOLIVIA	Inconclusive	Float / Dirty
	GRECIA	Floats	Dirty / Bands
	KENYA	Floats	Float / Dirty
	PARAGUAY	Floats	Float / Dirty
	ETIOPÍA	Dirties	Float / Dirty
	MALASIA	Dirties/CP	Dirty / Fix
	TAILANDIA	Dirties/CP	Dirty / Float
	NIGERIA	Fixes	Fix / Dirty