

TECHNICAL APPENDIX
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I. PRESENTATION

In this technical appendix we describe in detail the methodology used for coding our dataset. This appendix is organized as follows: First, we present a table summarizing the notation used throughout the dataset; Second, we elucidate all relevant definitions taken by the IMF staff in the *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER); Third, we set forth the general rules and criteria that guided our coding; Fourth, we explain the clarifications and exceptions thereof; And fifth, we show descriptive statistics regarding observations coded as wither *n.a* or *n.r.*

II. LIST OF ACRONYMS AND VARIABLES

Variable	Description
ka	Overall restrictions index (all asset categories, bo only 1997 onwards)
kai	Overall inflow restrictions index (all asset categories, bo only 1997 onwards)
kao	Overall outflow restrictions index (all asset categories, bo only 1997 onwards)
eq	Average equity restrictions
eqi	Equity inflow restrictions
eqo	Equity outflow restrictions
eq_plbn	Purchase locally by nonresidents (equity)
eq_siln	Sale or issue locally by nonresidents (equity)
eq_pabr	Purchase abroad by residents (equity)
eq_siar	Sale or issue abroad by residents (equity)
bo	Average bond restrictions
boi	Bond inflow restrictions
boo	Bond outflow restrictions
bo_plbn	Purchase locally by nonresidents (bonds)
bo_siln	Sale or issue locally by nonresidents (bonds)
bo_pabr	Purchase abroad by residents (bonds)
bo_siar	Sale or issue abroad by residents (bonds)
mm	Average money market restrictions
mmi	Money market inflow restrictions
mmo	Money market outflow restrictions
mm_plbn	Purchase locally by nonresidents (money market instruments)
mm_siln	Sale or issue locally by nonresidents (money market instruments)
mm_pabr	Purchase abroad by residents (money market instruments)
mm_siar	Sale or issue abroad by residents (money market instruments)
ci	Average collective investments restrictions
cii	Collective investments inflow restrictions
cio	Collective investments outflow restrictions
ci_plbn	Purchase locally by nonresidents (collective investments)

Variable	Description
ci_siln	Sale or issue locally by nonresidents (collective investments)
ci_pabr	Purchase abroad by residents (collective investments)
ci_siar	Sale or issue abroad by residents (collective investments)
de	Average derivatives restrictions
dei	Derivatives inflow restrictions
deo	Derivatives outflow restrictions
de_plbn	Purchase locally by nonresidents (derivatives)
de_siln	Sale or issue locally by nonresidents (derivatives)
de_pabr	Purchase abroad by residents (derivatives)
de_siar	Sale or issue abroad by residents (derivatives)
cc	Average commercial credits restrictions
cci	Commercial credits inflow restrictions
cco	Commercial credits outflow restrictions
fc	Average financial credits restrictions
fei	Financial credits inflow restrictions
fco	Financial credits outflow restrictions
gs	Average guarantees, sureties and financial backup facilities restrictions
gsi	Guarantees, sureties and financial backup facilities inflow restrictions
gso	Guarantees, sureties and financial backup facilities outflow restrictions
di	Average direct investment restrictions
dii_ldi	=max(ldi,dii)
dii	Direct investment inflow restrictions
dio	Direct investment outflow restrictions
ldi	Direct investment liquidation restrictions
re	Average real estate restrictions
rei	Real estate inflow restrictions
reo	Real estate outflow restrictions
re_pabr	Purchase abroad by residents (real estate)
re_plbn	Purchase locally by nonresidents (real estate)
re_slbn	Sale locally by nonresidents (real estate)

III. DEFINITION OF ASSET CATEGORIES AND LISTING CONVENTIONS

The following definitions and listing conventions are taken directly from the *Compilation Guide* in the AREAER 2011¹:

Shares or other securities of a participating nature (equity)

¹ IMF. *Annual Report on Exchange Arrangements and Exchange Restrictions*, 2011, p. 57-59.

Includes transactions involving shares and other securities of a participating nature if they are not effected for the purpose of acquiring a lasting economic interest in the management of the enterprise concerned. Investment for the purpose of acquiring a lasting economic interest is addressed under foreign direct investment.

Bonds or other debt securities

Refers to bonds and other securities with an original maturity of more than one year. The term “other debt securities” includes notes and debentures.

Money market instruments

Refers to securities with an original maturity of one year or less and includes short-term instruments, such as certificates of deposit and bills of exchange. The category also includes treasury bills and other short-term government paper, bankers’ acceptances, commercial paper, interbank deposits, and repurchase agreements.

Collective investment securities

Includes share certificates and registry entries or other evidence of investor interest in an institution for collective investment, such as mutual funds, and unit and investment trusts.

Derivatives and other instruments

Refers to operations in other negotiable instruments and nonsecured claims not covered under the above subsections. These may include operations in rights; warrants; financial options and futures; secondary market operations in other financial claims (including sovereign loans, mortgage loans, commercial credits, negotiable instruments originating as loans, receivables, and discounted bills of trade); forward operations (including those in foreign exchange); swaps of bonds and other debt securities; credits and loans; and other swaps (e.g., interest rate, debt/equity, equity/ debt, foreign currency, and swaps of any of the instruments listed above). Controls on operations in foreign exchange without any other underlying transaction (spot or forward trading on the foreign exchange markets, forward cover operations, etc.) are also included.

Commercial credits

Covers operations directly linked with international trade transactions or with the rendering of international services.

Financial credits

Includes credits other than commercial credits granted by all residents, including banks, to nonresidents, or vice versa.

Guarantees, sureties, and financial backup facilities

Includes guarantees, sureties, and financial backup facilities provided by residents to nonresidents and vice versa. It also includes securities pledged for payment or performance of a contract—such as warrants, performance bonds, and standby letters of credit—and financial backup facilities that are credit facilities used as a guarantee for independent financial operations.

Direct investment

Refers to investments for the purpose of establishing lasting economic relations both abroad by residents and domestically by nonresidents. These investments are essentially for the purpose of producing goods and services, and, in particular, in order to allow investor participation in the management of an enterprise. The category includes the creation or extension of a wholly owned enterprise, subsidiary, or branch and the acquisition of full or partial ownership of a new or existing enterprise that results in effective influence over the operations of the enterprise.

Liquidation of direct investment

Refers to the transfer of principal, including the initial capital and capital gains, of a foreign direct investment as defined above.

Real estate transactions

Refers to the acquisition of real estate not associated with direct investment, including, for example, investments of a purely financial nature in real estate or the acquisition of real estate for personal use.

LISTING CONVENTIONS

- When it is unclear whether a particular category or measure exists—because pertinent information is not available at the time of publication—the category is displayed with the notation “n.a.”
- If a measure is known to exist but specific information on it is not available, the category is displayed with the notation “yes.”
- If no measures exist on any item within a category, the category is displayed with the notation “no.”
- If members have provided the IMF staff with information indicating that a category or an item is not regulated, these are marked “n.r.”

IV. GENERAL RULES AND CRITERIA

1. When downloading and saving the information from the IMF’s website, we name the pdf as it was downloaded from IMF’s dataset as follows: “*country_year.pdf*”. However, in most cases (but not all) this year is one year ahead of the year that the measures in the report are alluding to. For example: *Angola_2006.pdf* refers to policy measures taken during 2005. When assessing if this is indeed the case for each country we are guided by the information in the first page of the report. From here onwards when we talk about a calendar year we refer to the year to which the measures allude to, not the one in the name of the pdf.
2. Remain consistent with the coding used by M. Schindler.
3. When coding each subcategory we first jointly look at the information in columns two and three of the report for the years 1999 onwards (before that year there is only one column). Column two contains only a YES or NO. Column three includes narrative information. We follow these criteria:
 - i. If there is no narrative information in the third column we code on the basis of the information in the second column where we assign a 0 for NO and a 1 for YES.
 - ii. If there is information in the third column we code based on the narrative information in that column and we disregard the information in the second column.
 - iii. We do not use the information contained in the headers of each category unless explicitly stated in the “Exceptions” (see below).
 - iv. If there is no narrative information in the third column and there is an “n.a” or “n.r” in the second column we report them as that in the dataset. If there is no information whatsoever in either columns (not even n.a or n.r) we report as “d.n.e” (does not exist).
4. When coding equity, bonds, money markets, and collective investment we use the exact same categorization as in the AREAER reports which further subcategorizes these into inflows (plbn and siar) and outflows (siln and pabr). When it comes to financial credit we use the subcategory *To Residents from Nonresidents* as inflows and *By Residents to Nonresidents* as outflows. Following Schindler (2009), we do not incorporate information on: *Controls on Derivatives and other Instruments*, *Controls on Commercial Credit Operations*, *Guarantees Sureties and Financial Backup Facilities*, *Controls on Real Estate Transactions* nor *Controls on Personal Capital Transactions*.
5. When in the third column there is an explicit requirement for “*authorization*”, for “*approval*”, for “*permission*” or “*clearance*” from a public institution, then it is automatically coded as a control (i.e. a 1).
6. We consider quantity restrictions on any investment (e.g. “*ceiling*”) as a control.
7. When the information on controls in the third column alludes ONLY to sectors we use the following rule:
 - i. If it pertains only to one sector and/or it alludes to areas reserved for state control (such as defense, security, central banking, etc.) it is not categorized as a control. If, on the other hand, it does not specify which areas other than defense and or central banking are reserved for state then it is categorized as control

- ii. If it alludes to more than one sector where private entrepreneurship is common then it is categorized as a control to the extent that the sectors have a macroeconomic impact.
- 8. We do not explicitly nor mechanically incorporate the information on the Section “Changes” at the end of the AREAER reports.
- 9. When dealing with direct investment controls, if there is an allusion to “*laws that regulate investment*” in specific areas then we categorize it as a control.
- 10. We disregard the fact that a given restriction may apply equally to residents and nonresidents.
- 11. Requirements of repatriation of the income from a sale in foreign markets are deemed to be a control.
- 12. We code as controls even when there is an allusion to “*only the primary or secondary markets*” being restricted. The same is true whenever controls are made only in national markets.
- 13. For investments other than Direct Investment, we do not code as a control allusions to DI regulations. To be concrete, if the third column alludes to restrictions that apply to equity, bonds, money market, collective investment, or financial credit that are associated to Laws or Regulations that are associated to Direct Investment we do not code this as controls on any of these 5 categories. The AREAER differences what is recorded in equity from the FDI section: “*Includes transactions involving shares and other securities of a participating nature if they are not effected (sic) for the purpose of acquiring a lasting economic interest in the management of the enterprise concerned. Investment for the purpose of acquiring a lasting economic interest is addressed under foreign direct investment.*”
- 14. We do not categorize requirements of “*reporting*”, “*registration*” or “*notification*” as controls.
- 15. We do not consider as controls, restrictions made to specific countries on the basis of political or national security reasons.
- 16. Restrictions on FDI in real estate are not considered controls, since these pertain to a different category in the AREAER.
- 17. Explicit allusions to “prudential” considerations are deemed to be controls.
- 18. Restrictions regarding credit’s maturity are deemed to be controls.

V. COUNTRY-SPECIFIC EXCEPTIONS AND CLARIFICATIONS

1. Algeria

- i. In dii 1995-2015: “*Foreign direct investment is freely permitted, except in certain specified sectors, provided that it conforms to the laws and regulations governing regulated activities and that prior declaration is made to the authorities.*” This was coded with ones in virtue of the second sentence of rule 7(ii).
- ii. In derivatives (header) 2010-2015: “*There is no market for derivatives. Purchases and sales of these products by residents and nonresidents domestically or abroad are not subject to exchange controls. Nonresidents are not authorized to issue securities on the*

domestic market.” Subcategories were coded in accordance with rule 3(i).

2. Angola

- i. In the case of the Private Investment Law (2003) that the reports allude to in FDI starting in 2003 we looked at the details in the Law regarding restrictions to inward direct investment and noticed that there was a minimum requirement for foreigners to participate in projects for them to repatriate their profits. This further confirmed our initial coding about controls for this particular subcategory.
- ii. In ldi 2012, pursuant rule 3(ii), we do not consider a control the obligation of paying taxes before repatriating profits.
- iii. In derivatives (header) 1995-1998: “*Not applicable for lack of such instruments in Angola, but in principle covered by foreign exchange and foreign investment legislation.*” Subcategories were coded in accordance with rule 3(i).

3. Argentina

- i. There is an explicit allusion to “ceilings” for fco in 2009, 2010, and 2011. Following the criteria above, these were set as controls.
- ii. For dio starting in 2007 there is an explicit allusion to a ceiling of the amount of FX that can be bought for FDI abroad. There is also the allusion of approval if one goes beyond the ceiling.
- iii. In eq_siln 2005-2012 (and bo_siln 2007-2012), residents and nonresidents are equally required to comply with certain criteria. Pursuant rules 5 and 10, this is interpreted as a control because there is an approval requirement for both.
- iv. In 2012, dii and dio changed to 1, because BCRA authorization became compulsory effective July 6, 2012.
- v. In dii 2005-2010: “*The deposit and minimum retention time requirements do not apply to foreign exchange imported by nonresidents for direct investment in Argentina. Foreign exchange imported for direct investment covers only those amounts that nonresidents apply to direct investment in Argentina, and the amounts they use specifically to purchase domestic assets that qualify as direct investment in accordance with the concepts used in international accounting, provided the importing institution can certify that the funds were specifically used in such transactions, based on its documentation.*” We think that this is a formality and do not poses any restriction on capital flows. Therefore, we change Schindler’s original coding for 2005 to 0.
- vi. In eq_siar 2009-2012: “*Resident corporation share issues that are not publicly offered or listed on self-regulated markets and that do not qualify as direct investment are subject to a deposit of 30% of the amount raised by the issue, pursuant to Decree No. 616/05 (b)*” We

believe that this has the potential to bear an important macro impact; therefore, we code it as a control.

- vii. In de_pabr (2001-2005) and de_siar (2001-2002): “*Forward and other derivatives contracts—except for currency and commodity swaps—are subject to CBRA approval*” We coded with ones, since it affects most forms of derivatives.
- viii. In de_plbn 2007: “*There are no limits on private financial and nonfinancial sector transactions in Argentina concerning futures operations on regulated markets and forward transactions, nor is BCRA approval required, provided they are settled domestically by netting in domestic currency. There are no limits on and BCRA approval is not required for operations with the rest of the world authorized by Communications A 4285, A 4440, and A 4743.*” This is considered as control pursuant rules 5, 6, and the second sentence of 7(ii).
- ix. In gso 2008-2012: “*Local banking institutions may purchase foreign exchange without the approval of the BCRA to meet their obligations to nonresidents concerning financial guarantees, if the operation guaranteed triggers automatic access to the exchange market, or if the granting of the guarantee is necessary to a commercial operation abroad ensuring direct or indirect provision of goods and/or services to residents involved in the operation (Communication A 4880).*” This is deemed to be a control.
- x. In gsi 2003 we coded as 0 based on the information at the AREAER, as the text has a ‘no’ with no narrative which, according to our rules should be coded as 0.
- xi. dio in 2011 is coded as 1 as there is an explicit allusion to a ceiling of the amount of FX that can be bought for FDI abroad. There is also the allusion of approval if one goes beyond the ceiling.
- xii. In fco 2001: “*Effective February 11, 2002, transfers related to repayments of principals on loans contracted, are subject to prior CBRA approval.*” The measure is considered to be a control only in 2002. Therefore, this is coded as 0.

4. Australia

- i. For dii there is slight change in the sectors covered in 2011 but we still call it as a control as it belongs to many sectors with broad macro consequences.
- ii. In accordance with rule 13, eq_plbn 2007-2011 should not be coded as a 1, as suggested by the Note. In 2006, rule 3(i) was applied.
- iii. In eq_siar 2008-2010 rule 12 was applied –In 2006 and 2007, rule 3(i) was applied which implies ones in coding–.
- iv. In eq_plbn 2012, although the narrative referred to in (ii) remained unchanged, nonetheless, the following was added: “*If Australian issuers have determined that it would not be reasonable to make an offer of securities to nonresidents, nonresidents may receive cash*”

instead of securities.” Although this is not explicitly addressed by any rule, we considered it to be a control, since Australian issuers might choose not to offer securities in virtue of the Corporations Act of 2001. This rationale also applies to ci_plbn 2012.

- v. In eq_siar 2012, the narrative disappears. The second column is no. Pursuant rule 3(i), this is interpreted as a 0.
- vi. In bo_siln and mm_siln 2005-2006 the following appears: “*Foreign governments, their agencies, and international organizations are not permitted to issue bearer securities and, when borrowing in the Australian capital market, must advise the Australian authorities of the details of each transaction after its completion.*” We believe that this might bear a significant impact, therefore, in accordance with rule 7(ii) it is considered a control.
- vii. In 2007-2008 bo_siln and mm_siln a third sentence is added: “*Offering debentures in Australia and providing financial services in relation to debentures by residents or nonresidents are subject to Ch 6D of the Corporations Act.*” Our coding was supported further by the Corporations Act, since we have equated allusion to specific regulation with control.
- viii. eq_siar in 2012 is coded as 0 as the text has a ‘no’ with no narrative which, according to our rules should be coded as 0.

5. Austria

- i. In eq_pabr, bo_pabr, mm_pabr, and ci_pabr M. Schindler identified a change in the regime in 2005 that we followed all through the following years: “*Controls apply to assets not denominated in euros by a private pension fund that would cause its total assets not denominated in euros to exceed 30% of its total assets. If the exchange risk is eliminated by hedging transactions, these investments may be counted as euro-denominated investments.*” We consider that a restriction on pension funds has the potential to bear a significant macro impact. Please note that in 2010 there is only reference to the insurance sector (therefore coded with zeros).
- ii. In de_pabr 2005-2009: “*Controls apply to purchase of derivatives and other instruments and claims not denominated in euros by a private pension fund that would cause its total assets not denominated in euros to exceed 30% of its total assets. If the exchange risk is eliminated by hedging transactions, these investments may be attributed to the euro-denominated investments.*” Same reason as above, that is, a restriction on pension funds might have important macroeconomic effects.
- iii. In fco 2010: “*Controls apply to the loans granted to (1) nonresidents, or for which the designated collateral is located abroad, if the asset in question is to form part of the guarantee funds of a local branch of a non-EU insurance company established in Austria; and (2) residents outside the EU, or for which the designated collateral is located*

outside the EU, if the asset in question is to form part of the cover of the prescribed solvency margin for the local branch of a non-EU insurance company established in Austria or is to form part of the cover of the technical provisions of resident insurance companies.” In 2011-2012 a third sentence is added: *“and (3) in currencies other than euros by private pension funds that would cause its total assets not denominated in euros to exceed 50% of its total assets.”* It must be noted that we take the stand that restrictions on insurance companies do not have a significant impact, whereas a restriction on pension funds does.

- iv. fco in 2011-2012 is coded as 1 as there is a reference to controls on pension funds, and in 2010 it is coded as 0 as there is only reference to controls on insurance companies.

6. Bahrain

- i. For money market in 2007, there were n.a.’s in all subcategories which we decided to set as 1s equal to the year before, given that there were no changes recorded in “changes”. But this is a pending decision based on what we decide to do with these n.a.’s
- ii. Starting in 2007 in eq_siar we started seeing the allusion that authorities “*may object*” which we from now onwards will equate to a control as it sounds very similar to authorization.
- iii. In dii 2005-2012: *“GCC nationals are allowed to own up to 100% of the shares of domestic enterprises. Non-GCC nationals are allowed to own up to 100% of the shares of domestic (locally incorporated) companies and branches of foreign incorporated companies, with the exception of a small number of activities contained in the “negative list,” and those restrictions that apply to the ownership of publicly listed companies. Disclosure standards require listed companies to notify the BMA of developments or changes in their paid-up capital, including (1) when one holder’s ownership of the issued and paid-up capital reaches 5% or more, (2) when ownership reaches 10% or more (this requires prior BMA approval), or (3) when ownership reaches 10% or more and the holder wishes to purchase more shares (this also requires prior approval and is subject to a limit of 20%).”* This must be considered as a control, pursuant rules 5 and 6 and the second sentence of rule 7(i).
- iv. We change Schindler’s original coding in bo_plbn 2004-2005, since there is no narrative and there is only a “no” in the second column, pursuant rule 3(i).

7. Bangladesh

- i. For years 2009-2012, in bo_plbn, we decided to put a control as it was alluding to the fact that nonresidents may buy gov-issued treasury bonds and “two” other foreign-currency denominated bonds. This “two” is a quantity restriction which we take as a control.

- ii. In 2004-2014 ldi, the following narrative is present: *“Liquidation of direct investment does not require prior BB approval. Also, transfers of Bangladesh shares and securities from one nonresident holder to another nonresident holder does (sic) not require prior BB approval. However, proceeds from the disinvestment of nonresidents’ equity investments in unlisted public limited companies and in private limited companies may be repatriated with prior BB permission since there may not be any established market value for such investment at the time of disinvestments. When a nonresident liquidates investment through a sale to a resident investor, the net asset value of the shares of the company is used as the basis for calculating the repatriation of proceeds.”* This is taken as a control, since there is a permission requirement.
- iii. In eq_plbn 1996-2014: *“Nonresidents may buy Bangladesh securities through stock exchanges against payment in freely convertible currency remitted from abroad through banking channels”* This is not considered as a control.
- iv. In re_pabr 1995, 1997-2012: *“Remittances of funds to acquire real estate abroad by resident nationals are not permitted.”* This is considered to be a control.
- v. In re_plbn 1995-2012: *“Purchases of real estate by a nonresident with funds brought from abroad are free.”* This was coded with zeros.
- vi. In gsi 1997-2012: *“Receipt of guarantees/sureties by residents from abroad requires full disclosure of the underlying transaction”* We believe that this is a mere formality; thus, we coded with zeros.

8. Belgium

- i. In 2005-2011 (not 2012) all subcategories of pabr, the coding with ones fails to comply with rule 7(i), as the controls only apply to insurance companies. Consider the following (2005-2006): *“Controls apply to the acquisition of securities issued by collective investment funds not regulated by EU authorities if these assets are to form more than 10% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund.”* In 2007-2011, a second sentence is added: *“Royal Decree of February 22, 1991, on General Regulation of the Supervision of Insurance Companies, contains detailed rules governing investments by insurance companies for the assets that cover their technical provisions.”* As there is no other sector involved, this is not considered as a control.
- ii. In de_pabr 2005-2011 (2012 has a different narrative – which I deem to be a clear control): *“Controls apply to the purchase of or swap operations in instruments and claims not traded on a regulated foreign financial market (1) negotiable within a period exceeding three months, except liabilities of financial institutions headquartered in the EU, if these assets are to form part of the cover of the technical*

reserves of an insurance company or of the assets representative of the liabilities of a private pension fund; (2) negotiable within a period exceeding three months, issued by financial institutions headquartered within the EU, if these assets are to form more than 20% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund; (3) negotiable within three months, except liabilities of financial institutions headquartered within the EU, if these assets are to form more than 10% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund; and (4) issued by financial institutions headquartered within the EU, if these assets are to form more than 20% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund.” Since there is a restriction on pension funds, we consider this to be a control.

- iii. eq_pabr, bo_pabr, mm_pabr (in 2005-2011) and ci_pabr (in 2005 and 2011) are coded as 1: “*Controls apply to the acquisition of securities issued by collective investment funds not regulated by EU authorities if these assets are to form more than 10% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund*” since it is considered to be a control imposing restrictions on pension funds.
- iv. eq_pabr, bo_pabr, mm_pabr, ci_pabr, de_pabr, and fco in 2013 are coded as 0, since there are only controls to insurance companies.

9. Bolivia

- i. In 2012, a quantity restriction is introduced in all pabr subcategories for more than one sector (banking, insurance and investment funds); before 2011, only insurance companies had quantity restrictions.
- ii. Also in 2012, all restrictions in plbn subcategories were removed (rule 3(i)).
- iii. In de_plbn 2011: “*A financial transaction tax applies to inward transfers or shipments of money made through authorized financial institutions, except through current or savings accounts and through institutions legally established in Bolivia that provide funds transfer services. The tax applies to all foreign currency deposits (with deposits and withdrawals considered taxable events), as well as to shares in investment funds, including redemption of shares and earnings. The rate is 0.15%.*” This narrative disappears in 2012.

10. Brazil

- i. We determined that for eq_pabr in 2011 whenever it said for “prudential nature” we were going to set it as 0 given that we are already coding as a control when Brazil put in place a specific tax on IOF in siln investment, and that a couple of years earlier those same prudential rules were coded as no.

- ii. For eq_siar, 2011, the tax rate was in place at 2% until December 2011 so we decided to keep it as a control throughout the entire year.
- iii. For 2010-2012, in bo_pabr, mm_pabr, and ci_pabr we decided to equate the word prudential with capital controls, pursuant rule 17.
- iv. For dio in 2006 we agree that we should have a 0 as they state that “*no restrictions apply on making transfers abroad by individuals or corporations*”. They do talk about authorizations but reading at the narrative in the 2005 report they allude to only public firms having to ask for such authorization and this was coded as 0 by M. Schindler. This does not qualify as a control to me and neither Klein nor Rebucci have it. In 2007 the narrative is much shorter and only talks about “*Specific regulations apply to transfers of funds for investment abroad by institutions authorized to operate by the CBB ...*”. Assuming that such institutions continue to be the public ones we coded that as a 0 to be consistent with the previous year. Same applies to 2008. Starting in 2009 an explicit allusion to “*prudential regulations*” appears which, to be consistent, with other cases in Brazil. However, it continues to apply to only those institutions authorized by CBB. So continuing with the assumption made earlier this should be coded as 0. In 2010 the narrative changes and states that sectors in finance (FI, pension funds, and mutual funds) are subject to prudential regulations. This I would start qualifying as a control given that it does have macro consequences and that we are talking about Brazil. Idem for 2011.
- v. In eq_siln 2002-2008: “*The sale of shares of foreign enterprises from MERCOSUR countries is regulated in Brazil through share custody certificates or directly. The only way to sell other foreign securities is through Brazilian Depository Receipts (BDRs), which allow the placement of certificates representing these shares in the Brazilian market.*” Considering that only foreign enterprises from MERCOSUR countries are allowed to sell shares directly, we consider that this is enough to consider a control. This is further supported by the narrative present following years.
 In 2009-2010, a new sentence is added at the end: “*The person offering the securities must be registered with the CVM. Commercial presence in Brazil is a requirement, except for sales through BDRs*”
 In 2011, a new sentence is added at the end: “*A 1.5% IOF rate applies to certain trades involving DRs issued by Brazilian companies. The tax is charged when foreign investors convert DRs for Brazilian companies into shares issued locally.*” In 2012, this last sentence is eliminated.
- vi. In eq_siar 2003-2005: “*Corporations may issue depository receipts abroad. In the MERCOSUR countries, Brazilian enterprises may operate through share custody certificates or directly*”. Considering that only foreign enterprises from MERCOSUR countries are allowed to sell shares directly, we think that this is enough to consider a control.

- vii. In dii 2005-2007: “*There are legal limitations on participation in certain economic activities*” Pursuant the second sentence of rule 7(i) this is deemed to be a control.
- viii. In eq_pabr 2006: “*Effective September 27, 2006, there are no restrictions on making transfers abroad of individual or corporate interest. Transfers of funds for investments abroad by institutions authorized to operate by the CBB and funds of any nature must observe specific regulations.*” This is a control pursuant rule 17 and rule 5.
- ix. In bo_pabr 2006: “*Effective September 27, 2006, no restrictions apply on making transfers abroad by residents. Transfers of funds for investments abroad by institutions authorized by the CBB to operate and funds of any nature must observe specific regulations. Previously, residents could purchase bonds or other debt securities through Brazilian external debt funds*” Pursuant rule 5, this is a control.
- x. In dio 2006: “*Effective September 27, 2006, no restrictions apply on making transfers abroad by individuals or corporations. Transfers of funds for investments abroad by institutions authorized to operate by the CBB and funds of any nature must observe specific regulations. Investments abroad by institutions authorized to operate by the CBB require prior approval of the CBB’s Department of Financial System Organization. In addition, the institutions must meet specific conditions, especially that prudential regulations on minimum paid-in capital be effectively operational for a minimum time span and strictly observe fixed-asset-to-net-worth ratios. Previously, only Brazilian nonfinancial enterprises could make transfers for outward direct investment purposes without limitation. Exchange operations in which the purchaser of the foreign exchange was an entity belonging to the direct or indirect public administration were subject to prior authorization by the CBB.*” Pursuant rule 17 and rule 5, this is a control.

Also, please note that the underlined sentence clarifies the obscure wording in 2005: “*Effective March 14, 2005, Brazilian nonfinancial enterprises may make transfers for outward direct investment purposes without limitation. Previously, the limit was US\$5 million including all remittances in the previous 12 months. Transfers exceeding the established limit must first be submitted to the CBB before the exchange contract. Exchange operations in which the purchaser of the foreign exchange is an entity belonging to the direct or indirect public administration are subject to prior authorization by the CBB. Investments abroad by institutions authorized to operate by the CBB must obtain the prior approval of the CBB’s Department of Financial System Organization and satisfy several conditions, especially with respect to paid-up capital, net assets, time in operation, fixed-asset ratios, and borrowing ceilings.*” This means that 2005 must be considered as a control, since financial institutions are affected by a ceiling (rule 6).

- xi.** In eq_pabr 2007-2008 (similar to 2006): *“No restrictions apply to transfers abroad of individual or corporate interest. Effective April 26, 2007, investments abroad by mutual funds are subject to prudential rules set by the CVM. Other funds are subject to specific regulation”* This is a control pursuant rule 17 and rule 5.
- xii.** In ci_siln 2007-2008: *“The person offering the securities must be registered with the CVM. Commercial presence in Brazil is a requirement, except for sales through BDRs”* The commercial presence requirement is considered to be a control.
- xiii.** In dio 2007-2009: *“Specific regulations apply to transfers of funds for investment abroad by institutions authorized to operate by the CBB and funds of any nature”* This is a control, following rule 5.
- xiv.** In eq_pabr 2009-2010: *“No restrictions apply to transfers abroad for the purchase of shares or other interest by individuals or corporations. Investments abroad by mutual funds are subject to prudential rules set by the CVM. Other funds are subject to specific regulations”* This is a control, following rule 17.
In 2011-2012 the first sentence of the foregoing narrative is eliminated.
- xv.** In bo_siar 2009: *“Effective October 19, 2009, a 2% tax (IOF) applies to nonresidents’ funds inflows.”* This is a control consistent with (i).
In 2010-2012, there was only a registration requirement, meaning that it is not deemed a control.
- xvi.** In mm_siar 2009: *“Effective October 19, 2009, a 2% tax applies to nonresidents’ funds inflows”* This should be a control consistent with (i).
- xvii.** In ci_plbn 2009: *“Effective October 19, 2009, a 2% tax (IOF) applies to nonresidents’ investments in equity and fixed income securities, with no discrimination between long- and short term flows. The foreign exchange transaction tax on other transactions is 0.38%, with some exceptions. Nonresident investors must register with the CVM, and the transactions must be reported to the CVM and registered with the RDE.”* This should be a control consistent with (i).
This requirement was lifted effective December 1, 2011.
- xviii.** In ci_siar 2009 there is an “n.r” in the second column; but, in the third column there is the following narrative: *“The 2% tax applies only to nonresidents’ funds inflows”*. In this case, we decided to ignore the “n.r”, and to consider it a control, bearing in mind its context.
- xix.** In fci 2008 we decided to set it as a control, since there was a tax at the time for this category of transactions. Despite this, it was not recorded on the AREAER. We resorted to the Decree 6333 of January 3, 2009.
- xx.** In de_plbn 1995-1998: *“Foreign capital fixed-income funds may conduct operations in organized derivative markets in the country, including futures operations carried out in markets managed by stock exchanges or commodities and futures exchanges. The resources of investors from Asuncion Treaty countries may be invested in the*

domestic options and futures market. The use of funds entering the country for the purchase of fixed-income securities and in operations carried out in derivatives markets is prohibited. There are no restrictions on investments in derivatives operations in Brazil by recipients of direct investments.” We believe that this is a control, as the foreign capitals are kept from entering the country.

- xxi.** In de_plbn 1999-2001: *“Any operation by a nonresident investor in derivatives or other future settlements markets may only be performed or registered in stock exchanges, commodities and futures exchanges, or over-the-counter markets organized by an entity authorized by the securities commission or settlement and custody system accredited by the CBB or authorized by the securities commission under their respective jurisdictions. In addition, resident and domiciled natural persons and corporations, including those having their head office abroad; funds; and other entities of foreign collective investment may perform transactions in commodities and futures exchanges involving forwards, futures, and options contracts in farm products. There are no restrictions on investments in derivative operations in Brazil by recipients of direct investments.”* This is a control, considering that OTC operations require authorization (rule 5).
- xxii.** In de_pabr 1995-2001: *“Private sector entities may engage in hedging operations with financial institutions or stock exchanges abroad to protect themselves against the risk of variations in interest rates, exchange rates, and commodity prices. The costs of such operations must conform to the parameters in force in the international market. The CBB may, at its sole discretion, require foreign exchange compensation sufficient to eliminate the effects of operations not in line with the established objective or executed outside those parameters, without prejudice to other sanctions that may apply. Payments and receipts in foreign currency scheduled or expected to occur in the future in connection with commercial or financial rights or obligations may also be protected by hedging. Hedging operations, however, are limited at any time (1) in interest rate and currency swaps, to the amount of the underlying commercial or financial rights and obligations remaining in foreign currency; and (2) in commodities swaps, open positions are limited to the physical volume of the commodity to be exported, imported, or traded in the domestic market”* We think that this is a control, considering that *“The CBB may, at its sole discretion (...)”* which recalls some form of prudential regulation. Therefore, pursuant rule 17, this should be coded with ones.
- xxiii.** In de_pabr (2009-2012) and de_siar (2010-2012): *“Private sector entities may engage in hedging operations with financial institutions or stock exchanges abroad to protect themselves against the risk of fluctuations in interest rates, exchange rates, and commodity prices. Derivative transactions without an underlying operation are not allowed.”* We set this as a control in consideration of the last sentence.

- xxiv.** In gsi 1995-2001 “*There are no controls on guarantees provided by nonresidents to residents in connection with foreign capital registered with the CBB, subject to the presentation of a formal statement by the foreign entity furnishing the guarantee. Data concerning the guarantee and the costs incurred in obtaining it are included in the Certificate of Authorization or Registration of the guaranteed operation. If costs are incurred in obtaining the guarantee, the credit operation must be authorized in advance by the CBB. There are no specific regulations governing other operations. In the event of execution of a guarantee, the beneficiary must arrange for the entry of the corresponding foreign exchange directly through the banking system.*” We coded with ones.
- xxv.** dii in 2002-2004 is coded as 1: “*There are legal limitations on participation in certain economic activities*” This is deemed to be a control, since the sectors are not specified, we have followed the rule to consider it a control.

11. Brunei Darussalam

- i.** From 1995 to 2011 this narrative is identical in dii: “*There are no sectoral controls, but activities relating to national food security and those involving local resources require some degree of local participation. Industries producing for the local market products that are not related to national food security and industries producing only for export may be fully foreign owned. Joint ventures with local companies are particularly encouraged in export-import industries and activities supporting such industries. At least one-half of a company’s directors must be either Brunei citizens or residents of Brunei Darussalam.*” Pursuant rule 2, this is not considered a control.

12. Bulgaria

- i.** In gso 2000 we coded it as 0: “*Prior registration with the BNB is required*”. Indeed, registration requirements are not controls in line with our rules.

13. Burkina Faso

- i.** Starting in 1999, the following appears in ldi: “*The liquidation of investments abroad must be reported to the MEF for statistical purposes. Reinvestment of the liquidation proceeds is subject to MEF authorization. If reinvestment is not authorized, the liquidation proceeds must be repatriated within one month through an authorized intermediary. The sale of foreign investments by nonresidents is unrestricted but must be reported to the MEF for statistical purposes.*” Pursuant rule 2, this is considered as a control.
- ii.** In eq_siar 2005-2006, the following narrative remains essentially unchanged: “*Residents may sell local corporate securities abroad. If*

these operations result in foreign control of domestic establishments, foreign investors are required to make a prior declaration to the MOF. The sale of securities to liquidate an investment abroad is subject to declaration to the MOF for statistical purposes. The proceeds in foreign exchange from sale or liquidation must be surrendered to an authorized intermediary bank within one month. Residents may also issue securities abroad, except for those constituting a loan. Issuance of the latter to nonresidents must be made through an authorized bank and must be reported to the MOF for statistical purposes.” We considered that the authorization requirement for banks and the need to surrender within one month are restrictions to the capital flows; hence, this was coded with ones.

- iii. In derivatives (header) 1997-2005: *“These instruments, which are virtually nonexistent in Burkina Faso, are governed by the regulations generally applicable to securities and investments.”* Subcategories were coded in accordance with rule 3(i).
- iv. In cci 1995-1998: *“There are no restrictions, but repayments of commercial credits are generally approved, subject to the documentation requirement.”* Please note that approval is only subject to the presentation of documents. Therefore, we coded with zeros. In 1999-2012 narrative changes: *“There are no controls, and repayments of commercial credits are generally approved, subject to the presentation of documents attesting to the validity of the commercial operation or of the services rendered, as well as the payment due date.”* Nonetheless, we still believe that it must be coded with zeros.
- v. In eq_siar 2007-2013 (see note (ii) above): *“Residents may sell local corporate securities abroad. If these operations result in foreign control of domestic establishments, foreign investors are required to make a prior declaration to the MEF. The sale of securities to liquidate an investment abroad is subject to declaration to the MEF for statistical purposes. Residents may also issue securities abroad, unless the securities constitute a loan.”* Please note that there is not an allusion to surrendering requirements or to the requirement of an authorized bank. Therefore, we coded with zeros.

14. Canada

- i. For dio in 2009, 2010 and 2011, it looks like restrictions on Myanmar and Iran were motivated due to political and or national defense reasons. So we code that as a zero.
- ii. In de_pabr 2005: *“Prior to February 23, 2005, controls applied to purchase of or swap operations by a private pension fund in instruments and claims on a foreign financial market that would cause the sum of its assets localized outside Canada to exceed 30% of its total assets”* This narrative was not present in previous years. We coded 2005 with a 0, since the control was eliminated. Since there is

no information on when was the measure in force, we disregard the possibility of coding with ones previous years.

- iii. In re_pabr 2005: “*Prior to February 23, 2005, controls applied to the acquisition by a private pension fund of real estate abroad that would cause the sum of its assets localized outside Canada to exceed 30% of its total assets.*” Idem as (ii) above.

15. Chile

- i. For eq_plbn, 2008-2011 we set it equal to 0 as the text alluded to the fact that purchase of shares “may be affected by laws on inward direct investment”, following the set of criteria that when it alludes to rules on direct investment they should be coded in the category of direct investment.
- ii. Starting in 2008 there is a narrative in dii that alludes to “incorporation requirements that apply to the registration of shipping vessels, establishment of financial institutions except banks and insurance companies, and auditing of financial institutions. ...”. It also talks later about restrictions in “granting and use of concessions for radio broadcasting”. Arguably the macro dimensions of these restrictions are not too large so we decided to set it as a 0. In 2011 essentially the same narrative remains but an addition is given at the end related to an “authorization for investments in mining of hydrocarbons, liquid or gaseous, of uranium and lithium”. Given that the largest part of the mining industry in Chile is not uranium nor lithium but copper, we decided to set it as 0 as well.
- iii. The following narrative starts appearing in equity, bonds, money market instruments and collective investments (from 2008 onwards): “*Limits apply to purchases of foreign securities by (1) insurance companies that would cause foreign assets to have a share greater than 10% in technical reserves or own funds; (2) managers of DL3500 pension funds, Retirement Bonus Fund of Law 19882 funds, and Unemployment Fund of Law 19728 funds that would cause foreign assets to represent an amount greater than the limits established for them in DL3500, as amended in 2008; and (3) managers of housing funds that would cause foreign assets to have a share of more than 30% in total assets under administration.*” This is considered to be a control, since there are in place restrictions involving pension funds and other sectors that may have an important impact on the economy.
- iv. In de_plbn 1995-1999: “*The market is not well developed. Nonresidents cannot participate in the local market for currency derivatives*”
In 2000-2001, the narrative changes: “*The market is not well developed. All these operations must be performed through the formal exchange market.*” All was coded in accordance with rule 3(i).

- v. In de_plbn 2002: *“These operations are permitted only through the banking system.”* This is set to be a control, as OTC operations are not allowed.
- vi. In de_siar 2000: *“Derivatives for currency and interest rates exist for operations with foreign agents in over-the-counter operations or with foreign banks. There is access to formal spot exchange markets for hedging purposes. Currency and interest rate options are allowed, except for banks. Foreign exchange needed for these operations may be bought at either the formal or the informal exchange market, but must be channeled through the formal market.”* We believe that limitations to the banking sector might affect the economy as a whole; therefore, we code this as a control.
- vii. In de_pabr 2008-2012: *“Limits apply to the purchase of foreign securities abroad by insurance companies that would cause foreign assets to have a share greater than 10% in technical reserves or own funds; by managers of DL3500 pension funds, Retirement Bonus Fund of Law 19882 funds, and Unemployment Fund of Law 19728 funds that would cause foreign assets to represent an amount greater than the limits established for them in DL3500, as amended in 2008; and by managers of housing funds that would cause foreign assets to have a share of more than 30% in total assets under administration. The acquisition, through purchase or exchange for other assets, of foreign financial derivatives products may not exceed 3% of technical reserves or risk patrimony of insurance companies.”* There are restrictions on pension funds and in other sector with macro implications. We code this with a one.
- viii. In re_slbn) 1995-1999: *“The investment must have been held for one year in Chile, and it must be demonstrated that the asset was sold and applicable taxes paid.”* We coded with ones.
- ix. In re_plbn 2008-2012: *“Businesses may not acquire land in the border zone if they are (1) are headquartered in the territory of a neighboring country, (2) have a participation of 40% or more from nationals of these countries, or (3) are under the effective control of such persons.”* We believe that this might be important, since Chile has important relationships with neighboring countries. Thus, we coded with ones.
- x. cco in 2008-2012 is coded as these are “no” with no narrative.
- xi. dii in 2013 is coded as 0 as narrative is essentially the same as in previous years.
- xii. eq_pabr in 1999-2000 is coded as 1: *“Except for banks and pension funds, there are no controls on the acquisition of international fixed-income assets and current account deposits. Pension funds are authorized to hold up to 16% of their funds in foreign assets, including up to 10% in variable-income assets.”* As stated in earlier comments in this document, we deem controls to be in place, whenever restrictions apply to pension funds.
- xiii. ci_pabr in 1999-2000 is coded as 1: *“There are no controls for nonfinancial agents. Pension funds are restricted by the type of fund*

(mainly to avoid leveraged and hedged funds), country risk, regulation, liquidity, experience of the fund, and participant's concentration" Since there are restrictions to pension funds, we deem this measure to reflect a control.

- xiv. dio in 2000 is coded as 1: "Effective April 19, 2001, all controls were abolished. Prior to that date, foreign exchange for investment could be bought both in the formal or the informal market, but the funds had to be transferred through the former. If proceeds of such investments were brought back into the country, they had to be channeled through the formal market, but there was no surrender requirement. Investments by commercial banks were limited to a percentage of their effective capital and subject to minimum international risk ratings. Nonfinancial institutions were allowed to make investments abroad, including the acquisition of real or financial assets and establishing agencies or branches abroad, as well as participation in companies and in contracts for the exploration and exploitation of natural resources." It is important to mention that the key point here is that the narrative is very similar in 1999. For this reason, it is plausible to assume that controls were in fact, in place in 2000.

16. China

- i. In eq_siln 2007-2012, we decided to set as a control even though it said there were no restrictions, because it explicitly stated that no nonresident had issued any shares in China. Hence the rule here is to code as a control if no transactions had been in place even though there were no restrictions. Note the wording of the report: "*Nonresidents may sell A and B shares. There are no restrictions on the issuance of A or B shares by a nonresident under current regulations, but no nonresident has yet issued any A or B shares in China.*"
- ii. fco in 2000 is coded as 1, since there is a "yes" with no narrative.

17. Colombia

- i. In eq_plbn 1999-2003: "*The purchase of 10% or more of the shares of a domestic financial institution requires the prior approval of the SB. Foreign investments in the form of placement of shares in a fund established to invest in the stock exchange and in debt papers issued by the financial sector are permitted.*" Despite the fact that the restriction is made on the financial sector, in this case, we consider that this must be coded with zeros. (See dii below)
- ii. In eq_plbn 2004-2005: "*The purchase of 10% or more of the stock of a Colombian financial institution requires the prior approval of the SB. The purchase of more than 20% of the entire issue of fixed-income securities maturing in less than two years is not allowed when involving portfolio investment funds managed by brokerage firms or trust companies authorized by the Securities Exchange Commissioner*

- (SEC).” This narrative is coded with ones because of the restriction on investment funds.
- iii. In dii 2003-2012: “*The purchase of 10% or more of the shares in a domestic financial institution requires the approval of the SB. Investments in the defense sector and in the handling of toxic and radioactive substances are not permitted.*” In this case, we do consider this to be a control in consideration that the restriction is on the financial sector.
 - iv. In ldi 2001-2012: “*The terms of reimbursement for investments and the legal remittance of profits in effect on the date of registration of the investment abroad may not be changed in such a way that it adversely affects the investor, except temporarily when international reserves fall below the equivalent of three months’ worth of imports (Article 11 of Decree No. 2080/00).*” We consider this to be a control as profits repatriation might be restricted should the conditions surrounding the international reserves fall be met. Please note that we applied this restriction for the period 2001-2012, in accordance with Article 55 of Decree 2080/00 which sets out that this control became in force in December 2000.
 - v. In de_siln 2000-2001: “*Only foreign financial institutions classified as professional brokers and registered with the international bodies charged with the regulation and control of the forward and futures operations in the OECD countries are authorized to engage in these transactions.*” This is considered to be a control, because there are restrictions on the persons allowed to participate in the Colombian derivatives market.
 - vi. In de_pabr 2000-2001: “*Residents are allowed to make these transactions with professional brokers, as described above.*” Idem as above.
 - vii. In de_siar 2004-2010: “*Only exchange market intermediaries and stock exchanges may offer derivatives on the exchange rate (futures or forward cover).*” This is considered to be a control.
 - viii. In de_plbn 2005-2010: “*Only foreign investors registered with the BR and foreign companies that have offered issues on Colombia’s public securities market are allowed to purchase cover from EMIs, who are the only authorized providers.*” Although there is apparently only a registration obligation, it seems that OTC transactions are not allowed. Please note that EMIs are Exchange Market Intermediaries.
 - ix. In gso 2000-2001: “*These transactions must be made through the formal exchange market.*” We take the stand that the narrative present in 2002, which further explains that these transactions must be conducted through an authorized intermediary, is also applicable for these two years.
 - x. In re_pabr 2001: “*These transactions must be effected through the authorized exchange market. Foreign exchange may be bought in the free market to invest abroad, but if the amount is greater than US*

\$500,000, the transaction must be registered with the BR.” Idem as (ix) above.

- xi.** In 2015 dii: *“Investment in the defense sector and in the handling of toxic and radioactive substances (Article 2.17.2.2.3.1 of Decree No. 1068 of 2015) is not permitted”, despite the removal of the last sentence found in previous years (“See XII: Provisions Specific to the Financial Sector below”), we coded this narrative with a one, as in the section of institutional investors there are many controls that were in place in previous years. Moreover, the relevant legislation, Decree 2555/10, is still in force.*

18. Costa Rica

- i.** In 2011-2012 fci, in consideration that there are reserve minima for financial entities, following rule 6, the coding must reflect a control.
- ii.** In 2006-2013 bo_siar there is an explicit allusion to an authorization requirement to the issuance of bonds by the MOF (rule 5).

19. Côte d’Ivoire

- i.** For dii, the narrative changes in 2009 but the substance remains the same as in 2008 where there is only a requirement for reporting activities for statistical purposes. So we agreed in continuing to put 0 in that year and 2010 and 2011, despite the fact that the second column changes.
- ii.** (Note that the narrative is identical to the one found in Burkina Faso) In Idi 2005, the following narrative appears: *“The liquidation of investments abroad must be reported to the MEF for statistical purposes. Reinvestment of the proceeds from the liquidation is subject to prior MEF authorization. If reinvestment is not authorized, the proceeds from the liquidation must be repatriated within one month through an authorized intermediary. The sale of foreign investments by nonresidents is unrestricted but must be reported to the MEF for statistical purposes.”* Pursuant rule 2, this is coded with a 1.
- iii.** Idem as Burkina Faso: eq_siar in 2000-2012.
- iv.** In fci 2005-2012 (2000-2004 has a similar narrative): *“There are no controls on these credits, but they must be declared to the directorate responsible for external finance for statistical purposes. The necessary funds must be transferred from abroad through an authorized agent. There are no controls on repayments of loans, provided the authorized agent handling the settlement is furnished with documentation attesting to the validity of the transaction”* Following rule 5, this must be coded with ones, as we deemed the “authorized agent” requirement a control.
- v.** In derivatives (header) 1995-1997: *“These instruments, which are almost nonexistent in Côte d’Ivoire, fall within the scope of the regulatory framework generally applicable to securities and investments”* Subcategories were coded in accordance with rule 3(i).

20. Cyprus

- i. An important change is recorded in the 2013 report. All relevant categories became restricted. Nevertheless, following rule 1, this regime change does not affect coding for 2012, since the measure was effective in April 2013.
- ii. In fco 2007-2011, the following narrative appears: *“Bank loans in foreign currency are subject to the liquid asset requirements prescribed by the CBC for prudential reasons. No other controls apply.”* In the dataset this was coded with zeros. Also note that a very similar narrative was present in 2006 under the header for “credit operations”. This is considered as a control, in virtue of rule 17.
- iii. There was a typo in fco 2005 (has a “no” in second column with no further information).
- iv. In re_slbn 1996-1998: *“Proceeds are transferable abroad after payment of taxes, provided the seller acquired the property by paying with foreign exchange; otherwise, proceeds are transferable abroad at the rate of £C 50,000 a year through a blocked account.”*
In 1999 the narrative changes: *“Proceeds are transferable abroad after payment of taxes, provided the seller acquired the property by paying with foreign exchange; otherwise, proceeds are transferable abroad through a blocked account.”* We coded with ones.
- v. In re_slbn 2000-2002: *“Proceeds are transferable abroad after payment of taxes. If the real estate was not acquired with foreign exchange, the proceeds of the sale are transferable at the rate of £C 1 million or one-third of the total amount, whichever is higher, a calendar year.”* We coded with ones.

21. Czech Republic

- i. For dii in 2011, the narrative does not change virtually at all between 2010 and 2011. Overall this narrative speaks about controls that apply only to some areas (real estate in agricultural lands, airlines, lotteries, depository of UCITS) without macro consequences. M. Schindler coded as 0 the same narrative in 2005.
- ii. Restrictions on eq_pabr, bo_pabr, mm_pabr and fco disappear in 2012. However, controls on bo_siln and ci_siln are introduced.
- iii. In eq_siln (2005-2010), bo_siln (2005-2012) and mm_siln (2005-2010); the narrative: *“Controls apply to mortgage securities”* is considered as a control, as it may have a significant impact.
- iv. In all subcategories of pabr 2005-2011 (not 2012 nor 2004) (starting in 2009, new restrictions are added in the same sectors –pension funds and insurance companies–): *“Controls apply to the purchase by (1) a private pension fund of securities other than those issued by governments and central banks of OECD member countries on a foreign market; (2) an insurance company of securities other than those issued by governments and central banks of OECD countries if*

these assets are to form 75% or less of the cover of its technical reserves and by the EIB, EBRD, and IBRD if these assets are to form 50% or less of the cover of its technical reserves; and (3) an insurance company of securities not traded on a regulated OECD market if these assets are to form 10% or less of the cover of its technical reserves.” Note that there are restrictions on pension funds. In consequence, we take this to be a control.

- v. In fco 2005-2011 (not 2012 nor 2004) (starting in 2009, new restrictions are added in the same sectors –pension funds and insurance companies–): *“Controls apply to credits and loans granted to nonresident borrowers (1) other than governments and central banks of OECD member countries by a private pension fund; and (2) by an insurance company if these assets are to form part of the cover of its technical reserves.”* Idem as above.
- vi. In de_pabr 2005-2010: *“Controls apply to the purchase of or swap operations by a private pension fund in instruments and claims on a foreign financial market other than those issued by or contracted with governments and central banks of OECD member countries, and the purchase of or swap operations by an insurance company in instruments and claims on a foreign financial market other than derivatives publicly traded on an OECD market if these assets are to form 5% or less of the cover of its technical reserves.”* Idem as above.
- vii. In de_siln and de_siar 2012: *“Commercial trading in derivatives and other instruments is reserved for regulated financial institutions (brokers, banks).”* This is not considered to be a control, for the reason that this is not very restrictive.
- viii. mm_siln in 2011 is coded as 1 as there is a “yes” with no narrative.

22. Dominican Republic

- i. In dio 2005-2012: *“Commercial banks and other credit institutions may invest up to 20% of their paid-up capital in branches, agencies, or representative offices abroad, as well as make equity investments in foreign financial institutions. Full-service banks wishing to invest abroad or to open cross-border entities must fulfill certain minimum requirements including: (1) prior authorization of the Monetary Board, which requires host-country authorization and the opinion of the Superintendency of Banks; (2) in the case of full-service banks, a solvency ratio equal to or greater than 10% and fulfillment of prudential requirements in the Monetary and Financial Law or in Monetary Board resolutions; (3) in the case of full-service banks, sufficient management capacity to perform offshore functions; (4) maintenance of a cooperation agreement between the Superintendency of Banks and the host -country supervisory authority; (5) approval by the host country authorities of the investment; (6) a favorable report from the host-country supervisory authority regarding the rating and soundness of the financial*

intermediary in which investment is to be made; and (7) submission of necessary documentation to the Superintendency of Banks” This is clear control to the financial sector. Hence, pursuant rules 5, 6, 7(i) and 17, we code it with ones.

23. Ecuador

- i. In fco 2008-2012, the following narrative is present: “*Controls apply on Ecuadorian emigrants resident abroad who apply for loans from Ecuadorian banks to be reimbursed from abroad. Supervision of such loans falls within the purview of the Superintendency of Banks and Insurance.*” We believe that this is significant enough to consider it as a control.
- ii. In cco 2004-2012: “*Commercial credits to private enterprises are supervised by the Superintendency of Banks*” We believe that this might entail a control. Consequently, we coded with ones.
- iii. eq_pabr, bo_pabr, mm_pabr, and ci_pabr in 2009-2012 are coded as 1: “*Financial institutions are required to pay a monthly tax of 0.084% on their investments held abroad, and the tax on remittances abroad has been raised to 1% from 0.5%*” Investment tax is clearly a control.

24. Egypt

- i. For dii in all years post 2005 the narrative does not change at all relative to 2005. It does not look like a control given that it alludes only to nonbank companies of foreign exchange dealers. Also M. Schindler coded as 0 the same narrative in 2005.
- ii. In 2009-2012 bo_siln was coded with zeros. There is an explicit allusion to an approval requirement, which first appears in 1999 and it is not interrupted.
- iii. In all subcategories of pabr 2009-2012: “*Private pension funds are not allowed to invest in foreign securities or assets abroad*” Since we think that this might have macro implication, we code it as a control.
- iv. In de_plbn 1995-1996: “*Derivatives have not yet been introduced into the Egyptian market*” It was coded in accordance with rule 3(i).
- v. In derivatives (header) 1996-2005: “*Derivatives do not exist in the Egyptian market*” Subcategories were coded pursuant rule 3(i). Note that in 2006 the header is replaced with: “*Derivatives exist in the Egyptian market only for genuine hedging purposes.*” In de_pabr 2009-2012: “*Private pension funds are not allowed to invest in foreign securities or assets abroad.*” Idem as (iii) above.

25. El Salvador

- i. All subcategories of pabr in 2009-2012 are coded with ones, pursuant rule 7(ii). This decision was made in view that the restrictions affect the entire banking system.

- ii. In ldi 2005, Schindler coded the following as a control: “*Foreign investors are guaranteed the right to transfer abroad funds related to their investments, which must be made without delay and are subject to the prior conversion of such funds into foreign currency through the banking system. Such transfers include net profits and dividends, proceeds from partial or total disposal of investments, and proceeds from the transfer of investments to third parties.*” We think that this was a typo, considering that in 2004, Schindler coded the same narrative with a zero. We also coded the same narrative with zeros in 2006-2012.
- iii. In dii 2005, Schindler coded a very similar narrative in 2001-2004 with ones. We also coded it with ones for 2006-2012. Hence, we think that this might also have been a typo.

26. Ethiopia

- i. In derivatives (header) 1997-2012: “*There is no market in these instruments.*” Subcategories were coded pursuant rule 3(i).
- ii. In de_pabr 2009-2012: “*Residents are not allowed to buy these instruments abroad*” This was coded with ones.
- iii. In re_plbn 1997-2003: “*All Ethiopian passport holders can purchase real estate in Ethiopia*” We think that this is control, in consideration that passports are, in general, only issued to nationals.
- iv. In gsi 1998-2012: “*Commercial banks may issue guarantees on behalf of foreign banks to resident companies.*” We do not understand that there is a control in place. We coded with zeros.

27. Finland

- i. In dii, the period of 2005-2012 was coded with ones, bearing in mind rule 7(ii), whose standard of macroeconomic impact is satisfied with the restrictions on the establishment of branches of foreign companies.
- ii. In de_pabr 2005-2008: “*Controls apply to purchase of or swap operations in instruments and claims issued by or contracted with non-EU residents if these assets are to form more than 5% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund administering statutory pension schemes.*” This is a control, as it is related to pension funds. In 2009 the restriction for private pension funds was removed.
- iii. In re_plbn 1995-1998: “*The controls apply only to the acquisition of real estate (1) for recreational purposes or secondary residences by nonresidents who have not previously been residents of Finland for at least 5 years; and (2) in the Aaland Islands.*” We coded with ones.
- iv. eq_pabr, bo_pabr, mm_pabr, ci_pabr, and fco in 2005-2008 are coded as 1, since there are controls involving pension funds: “*Controls apply to the purchase of securities issued by non-EU residents if these assets are to form more than 5% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of*

a private pension fund administering statutory pension schemes. “ It is considered to be a control as controls on pension funds are involved. In 2009, “The 5% limit on the purchase of securities issued by non-EU residents if these assets are to form the assets representative of the liabilities of a private pension fund administering statutory pension schemes has been removed”

28. France

- i. eq_siln, bo_siln, mm_siln, and ci_siln in 2002 are coded as 1: “Prior to March 7, 2003, when these were eliminated, there were controls on shares or other securities of a participating nature issued by non-QECD area residents.” It is deemed to be a control and it is coded as 0 starting 2003.

29. Georgia

- i. In eq_pabr and bo_pabr 2009: “*Effective January 20, 2009, no more than 20% of total provisions of insurance companies may be invested in securities issued by nonresidents. Effective January 20, 2009, the following limitations apply to the investment of pension fund assets in relation to total pension fund liabilities and provisions: (1) a maximum of 30% in debt securities (including treasury bills issued by the MOF) issued by Georgia and OECD member states; (2) a maximum of 15% in corporate bonds, preferred stock, and equity securities traded on the securities exchange of Georgia and OECD member states; (3) a maximum of 3% in corporate bonds and preferred stock by the same issuer in Georgia and OECD member states; (4) a maximum of 10% in corporate bonds, preferred stock, and equity securities traded on securities exchanges other than those of Georgia and OECD member states; (5) a maximum of 2.5% in corporate bonds and preferred stocks by the same issuer traded on securities exchanges other than those of Georgia and OECD member states; (6) a maximum of 20% in mortgage loans secured with property registered in Georgia, OECD, and other developed countries (loans to a single person may not exceed 10%); (7) a maximum of 10% in mortgage loans and Loan to banking institutions (loans to a single bank may not exceed 10%); (8) a maximum of 20% in loans; (9) a maximum of 90% in in-bank deposits (deposits in a single bank may not exceed 30%); and (10) a minimum of 10% in cash in vault and on the current account, but not exceeding 20% in a single bank.*” Please note that the restrictions do not only apply to the insurance sector but to the investment of pension funds as well. Therefore, we code it as a control.
- ii. In 2010-2012 the foregoing narrative (eq_pabr and bo_pabr) changes: “*Generally, there is no restriction for insurers to invest abroad. Nevertheless the prudential limits are established, effective March 31,*

2010, by Decree No. 51/01 of the president of the NBG with respect to assets covering technical provisions. According to this rule, up to 20% of assets covering insurance technical provisions may be placed abroad. Further limitations apply to the assets covering insurance technical provisions: (1) a maximum of 30% of the total amount of technical provisions may be placed in debt securities (including treasury bills issued by the MOF) issued by Georgia and OECD members; (2) a maximum of 30% in debt securities issued by respective bodies of local self-governance of OECD members and/or developed countries; (3) a maximum of 50% in debt securities mentioned in parts (1) and (2); (4) a maximum of 15% in corporate bonds, preferred stock, and equity securities traded on the organized securities market of Georgia and OECD members; (5) a maximum of 3% in corporate bonds and preferred stock by the same issuer in Georgia and OECD members and a maximum of 2% in equity securities; (6) a maximum of 10% in corporate bonds, preferred stock, and equity securities issued by legal entities registered in Georgia, OECD members, and/or developed countries and traded outside organized securities markets of Georgia and OECD members; (7) a maximum of 2.5% in corporate bonds and preferred stocks by the same issuer traded on securities exchanges other than those of Georgia and OECD members and a maximum of 1% in equity securities; (8) a maximum of 15% in securities mentioned in parts (4) and (6); (9) a maximum of 20% in mortgage loans secured with property registered in Georgia, OECD members, and other developed countries (loans to a single person may not exceed 10%); (10) a maximum of 20% in loans to banking institutions (loans to a single bank may not exceed 10%); (11) a maximum of 10% in loans secured by securities mentioned in parts (1) and (2) (loans to a single person may not exceed 2%); (12) a maximum of 10% in real estate registered in Georgia, OECD members, and/or developed countries; (13) a maximum of 90% in bank deposits (deposits in a single bank may not exceed 30%); and (14) a minimum of 10% in cash in vault and on the current account, but not exceeding 20% in a single bank” As there are only restrictions to insurance companies, we do not consider these to have a large macroeconomic impact.

- iii.** In eq_pabr 2013: “Generally insurance companies and pension funds may invest freely abroad. Effective December 24, 2013, Decree No. 04 of the head of the Insurance State Supervision Service replaced Decree No. 51/01 of the president of the NBG as the regulation governing insurance companies and pension funds. However, under prudential limits established by Decree No. 04, up to 20% of assets covering insurance technical provisions and pension liabilities may be placed abroad. Additional limits apply as follows: (1) Up to 30% may be placed in debt securities (including treasury bills issued by the MOF) issued by Georgia and OECD member countries. (2) Up to 30% may be in debt securities issued by local self-governance agencies of

OECD member countries and/or developed economies. (3) Up to 50% may be in debt securities mentioned in parts (1) and (2). (4) Up to 15% may be in corporate bonds, preferred stock, and equity securities traded in the organized securities markets of Georgia and OECD members. (5) Up to 3% may be in corporate bonds and preferred stock by the same issuer in Georgia and OECD member countries, and up to 2% may be in equity securities. (6) Up to 10% may be in corporate bonds, preferred stock, and equity securities issued by legal entities registered in Georgia, OECD members, and/or developed economies and traded outside the organized securities markets of Georgia and OECD members. (7) Up to 2.5% may be in corporate bonds and preferred stocks of the same issuer traded on securities exchanges other than those of Georgia and OECD members, and up to 1% may be in equity securities. (8) Up to 15% may be in securities mentioned in parts (4) and (6). (9) Up to 20% may be in mortgage loans secured with property registered in Georgia, OECD members, and other developed economies (loans to a single person may not exceed 10%). (10) Up to 20% may be in loans to banking institutions (loans to a single bank may not exceed 10%). (11) Up to 10% may be in loans secured by securities mentioned in parts (1) and (2) (loans to a single person may not exceed 2%). (12) Up to 10% may be in real estate registered in Georgia, OECD members, and/or developed economies. (13) Up to 90% may be in bank deposits (deposits in a single bank may not exceed 30%). (14) Up to 10% may be in cash in vault and on the current account, not exceeding 20% in a single bank” We interpret the restriction to pension funds to begin in December 2013. Since in 2012 there were only restrictions to insurance companies, we think that this must be coded with a zero.

30. Germany

- i.** In all subcategories of pabr and fco in 2005-2008: “*Controls apply to the purchase by insurance companies and pension funds of securities issued by non-EU residents if these assets are to form more than 5% of their guarantee assets or more than 20% of their other restricted assets*” In 2008, the restriction is eliminated for insurance companies: “*Controls apply to the purchase by pension funds of collective investment securities issued by non-EU residents if these assets are to form more than 5% of their guarantee assets or more than 20% of their other restricted assets. Insurance companies may acquire investments in all investment categories in any OECD member country. The previous limitation on insurance companies’ investments based on the location of the assets has been eliminated.*” (The latter narrative is present until 2011).
- ii.** In de_pabr 2005-2012 (narrative changes but restriction on pension funds remains): “*Controls apply to the purchase by insurance companies and pension funds of securities issued by non-EU residents*

if these assets are to form more than 5% of their guarantee assets or more than 20% of their other restricted assets.” Note the restriction on pension funds.

31. Ghana

- i. We identified a change in regime in Dec 29 2006 but we coded the change as occurring in 2007.
- ii. For dio in 2006 the date that controls on dio were removed was, effectively, December 29, 2006 so we consider that capital controls were in place in all 2006.
- iii. In eq_plbn 2007-2012: *“No controls apply, except in the banking sector, where nonresidents’ acquisition of a stake exceeding 10% is subject to BOG approval”* This might have a macroeconomic implications. Therefore, we code it with ones.
- iv. In dii 1998-2012: *“Certain areas of economic activity (hairdressing, barbering, and lottery) are not open to foreigners. Foreign investors in Ghana must register and comply with the requirements of the Ghana Investment Promotion Center (GIPC) if they are to benefit from the incentives available under the GIPC Act, such as tax holidays and initial capital allowances. The minimum qualifying amounts of investment by a non-Ghanaian are as follows: (1) \$10,000 or its equivalent in capital goods by way of equity participation in a joint-venture enterprise with a Ghanaian partner; (2) \$50,000 or its equivalent in capital goods by way of equity when the enterprise is wholly owned by a non-Ghanaian; and (3) \$300,000 or its equivalent in goods by way of equity capital when the enterprise is either wholly or partly owned by a non-Ghanaian, employs at least 10 Ghanaians, and is involved in the purchasing and selling of goods.”* Although the narrative is not clear, considering the wording of the first few years, we think that it should be coded as a control. The sentence *“The minimum qualifying amounts of investment by a non-Ghanaian”* is interpreted to be related to the approval of the investment *per se* and not the minima established under the GIPC.
- v. In derivatives (header) 1995-2001: *“Currently, a local market in derivatives and other instruments does not exist. No restrictions apply but transfer of funds requires BOG approval.”* Subcategories were coded in accordance with rules 3(i) and 3(ii).
Note that in 2002 the header is replaced by: *“Currently, the local market in derivatives is limited.”*

32. Greece

- i. In In 2008 eq_pabr and bo_pabr, the following narrative is present: *“Controls apply to the purchase of securities issued by non-EU residents if these assets are to form part of the technical reserves of an insurance company. OPFs may invest only in bonds listed on regulated markets and issued in Greece or in another member of the*

EU or the EEA” In 2009-2010, the narrative is: “*Controls apply to the purchase of securities issued by non-EU residents if these assets are to form part of the technical reserves of an insurance company. Second-pillar occupational pension funds (OPFs) may invest only in shares listed on regulated markets and issued in Greece or in another member of the EU or the EEA. Collective investment funds may invest freely in securities listed abroad; these funds are classified as domestic or foreign funds, according to their declared investment policy: if domestic, a fund must invest at least 65% of its net asset value (NAV) in domestic products; if foreign, it must invest at least 65% of its NAV in foreign products*” We believe that restrictions on OPFs have a large macroeconomic impact.

- ii. In 2008-2012 ci_pabr, the following is present: “*Controls apply to the purchase of securities issued by non-EU residents if these assets are to form part of the technical reserves of an insurance company. OPFs may invest only in shares in mutual funds and UCITS that fall under Directive 85/611/EEC and operate in an EU or EEA member country.*” Idem as above.
- iii. In 2015 (most categories): “*Effective July 31, 2015, as an exception from the ban on transfers abroad, nonresident depositors may transfer abroad proceeds from their investments in Greek financial instruments including income if the investment was made through the nonresidents' investment account before June 28, 2015 or if the investment was made by transferring funds from abroad. All other transfers related to the sale or issue of foreign securities in Greece are subject to BTAC approval*”. This narrative is a control in accordance with our rules, as there are restrictions to funds transfers abroad. Note, however, that for this reason, we only consider this to be a control on outflows (hence, excluding the narratives of eq_plbn, bo_plbn, mm_plbn, ci_plbn, de_plbn, and dii). The ban started in late June 2015².
- iv. dii in 2005-2014 is coded as 1: “*...establishment of a representative office or a branch of a foreign bank, unless an authorization is granted*” Regulations governing financial sector are considered to be important in influencing capital flows.

33. Guatemala

- i. In dii 1999-2012, a conflict of rules arises. Pursuant rule 9, we should consider FDI regulation on petroleum as a control; however, following rule 7(i), we shouldn't consider it as a control, since it is only one sector. In this case, keeping in mind rule 2, we decided in favor of rule 7(i), that is, not to consider it as a control.

²“What are Greece’s Capital Controls?” Bloomberg. Available at (accessed in March 2017): <https://www.bloomberg.com/news/articles/2015-06-29/what-are-greece-s-capital-controls->

34. Hungary

- i. For eq_plbn in 2011 I do not see a reason for changing the 0 that we had given in that same category on 2010 since the narrative does not change. That 0 is warranted on the basis of the criteria that (i) regulations are associated to FDI regulations; and (ii) applies to only one sector.
- ii. For eq_pabr in 2011 I do not see a reason for changing the 0 that we had given in that same category on 2010 since the narrative does not change. That 0 is warranted on the basis of the criteria that it applies to only one sector.
- iii. Idem for bo_pabr in 2011.
- iv. Idem for mm_pabr in 2010 and 2011.
- v. For dio in 2009, 2010 and 2011 we are using the new rule in terms of reporting the “d.n.e” and “n.a.”
- vi. For dii in 2010 we were consistent with the coding in 2009 (and also with M. Schindler) in putting a 0 as there is only an allusion to restrictions that pertains to the sector of water transportation and pension funds. In 2011 the list expands a little by including airlines but still we did not believe that it does bear macro consequences.
- vii. Idem for fco in 2010 and 2011.
- viii. In mm_pabr 2005-2007 (not 2004): *“Controls apply to the purchase of securities issued by nonresidents if such assets are to form cover for the technical provisions of an insurance company, unless the assets (1) were issued by (a) an OECD or EEA member state, (b) local or regional authorities of OECD or EEA member states, (c) economic operators established in an OECD or EEA member state, or (d) an international organization of which one or more OECD or EEA member states are members; and (2) are kept in the territory of OECD or EEA member states. Pension funds may purchase securities issued by nonresidents not exceeding 30% of their total investment portfolio.”* Since there are quantitative restrictions for pension funds, this must be coded as a control.
- ix. In ci_pabr 2006-2007 (not 2005): *“Controls apply to the purchase of securities issued by nonresidents if such assets are to form cover for the technical provisions of an insurance company, unless the assets (1) were issued by (a) an OECD or EEA member state, (b) local or regional authorities of OECD or EEA member states, (c) economic operators established in an OECD or EEA member state, or (d) an international organization of which one or more OECD or EEA member states are members; and (2) are kept in the territory of OECD or EEA member states. Pension funds may purchase securities issued by nonresidents not exceeding 30% of their total investment portfolio”* Idem as in mm_pabr.
- x. In gso 1995-1997: *“These transactions are allowed if they are related to international commercial transactions or if the guarantee is related to a customs duty. In all other cases, a foreign exchange authority*

license is needed, which is granted liberally, on a case-by-case basis, after submitting a request and its accompanying documents.” We believe that this is a control.

In 1998, the narrative changes to: *“These transactions are allowed if they are related to liberalized transactions. In all other cases, authorization is needed, which is granted liberally, on a case-by-case basis.”* This narrative further confirms our position.

- xi.** eq_pabr and bo_pabr in 2005-2007 and ci_pabr in 2005 are coded with ones : *“Pension funds may purchase securities issued by nonresidents not exceeding 30% of their total investment portfolio”* It is considered to be a control as controls on pension funds are involved.

35. Iceland

- i.** In eq_plbn, eq_siln, eq_siar, bo_pabr, mm_plbn, mm_pabr, ci_plbn, ci_pabr, fci, fco and ldi, a change in regime occurred in Nov 2008 but we coded the change as effective 2009.
- ii.** In bo_siar and mm_siar starting in 2010 there is an allusion to the requirement for residents to repatriate the income from a sale in foreign markets. This to us is a control as per the set of criteria described above.
- iii.** In eq_plbn 2006-2007: *“The purchase of shares or other equity capital may be affected by laws on foreign investment in Iceland.”* Pursuant rule 13 this is not a control.
- iv.** In bo_siar and mm_siar 2009 (Please note that this narrative is present in the 2009 pdf): *“Effective November 28, 2008, the issuance and sale of securities denominated in foreign currency are prohibited if the settlement takes place in Icelandic krónur. If the issuance is denominated in Icelandic krónur, the proceeds from the sale must be deposited to a króna-denominated account, in the issuer’s name, with an AD in Iceland. Króna denominated financial instruments may not be settled in foreign currency, and the proceeds must be deposited to the nonresident’s account with an Icelandic AD. However, residents may issue foreign-currency-denominated securities abroad.”* In these two subcategories 2009 are coded as controls.
- v.** In ci_plbn 2009: *“Effective November 28, 2008, the purchase of unit share certificates in UCITS and investment funds for foreign currency is not permitted except for reinvestment of investments made prior to that date. The proceeds must be reinvested in the same type of instrument within two weeks.”* We deem that this must be considered as a control for 2009.
- vi.** In ci_siar 2009: *“Effective November 28, 2008, the issuance and sale of unit share certificates in UCITS and investment funds denominated in foreign currency are prohibited if the settlement takes place in Icelandic krónur. If the issuance is denominated in Icelandic krónur, the proceeds from the sale must be deposited to a króna-denominated account, in the issuer’s name, with an AD in Iceland. Króna-*

denominated financial instruments may not be settled in foreign currency, and the proceeds must be deposited to the nonresident's account with an Icelandic AD. However, residents may issue foreign-currency-denominated unit share certificates in UCITS and investment funds abroad." This is also considered to be a control for 2009.

- vii. In de_siln 1996-2003, 2005-2008: "*Foreign governments and other authorities are prohibited from issuing debt instruments in Iceland unless permitted by the CBI.*" This is a control, pursuant rule 5.
- viii. In derivatives (all subcategories): "*Derivatives contracts involving the Icelandic króna against a foreign currency are subject to CBI permission except for derivatives transactions related solely to trade with goods and services.*" This is considered to be a control, pursuant rule 5.
- ix. eq_siln in 1999-2004 is coded as 1: "*Foreign governments and other authorities are prohibited from issuing debt instruments in Iceland unless permitted by the CBI*" is considered to be a control, because authorizations or permissions are considered to be restrictions to capital flows.

36. India

- i. For ci_plbn in 2011 we decided to put a control because of the allusion to foreign investors needing to invest in MF that hold at least 25% of their assets in the infrastructure sector. We think that this is a quantity limit, hence a control.
- ii. For ci_plbn in 2012, the narrative only contains the first sentence of the one that preceded it. Thus, there is no explicit allusion to the quantitative limit in (i).
- iii. Please note that bo_siln is coded as d.n.e in 2012.

37. Indonesia

- i. In bo_plbn we decided for 1 starting in 2007 because of the allusion to restrictions in the primary market, even though there were no restrictions in the secondary market, and because it treated residents and nonresidents differently. For bo_pabr we set a 0 for 2008 based on the change in the narrative of that year only.
- ii. For eq_plbn in all years of the update (2006-2013) we decided to keep it as no controls given that Schindler had coded like that and the narrative does not change. More profoundly, we think the restriction of limiting ownership restricts only to a specific type of company (one that is joint securities that are also finance) so we take it as a no control.
- iii. In mm_siln 2000-2006: "*The regulations governing bonds or other debt securities apply.*" In this case, bo_siln 2005 has an "n.r" in the second column with no further information. However, mm_siln has a "yes" in the second column. We take the stand that mm_siln must be

coded with zeros, in accordance with the absence of regulation for bonds.

- iv. There was a typo in mm_siln 2007. There is a “yes” with no further information.
- v. In eq_pabr 2009-2012: “*Pension funds may not invest in securities abroad and mutual funds may invest abroad only up to 15% of net asset value.*” This is coded as a control since there is not only a restriction on pension funds (which we would be enough to code with ones) but also in mutual funds.
- vi. In mm_plbn 2009-2012: “*The BI certificate (SBI), which mainly functions as a monetary operation instrument to absorb liquidity in the domestic banking system, is one type of money market instrument in Indonesia. The BI sells SBIs through an open market operation (OMO) for monetary purposes. Only OMO participants, which are resident banks and money market brokers that act on behalf of the banks, can purchase SBIs in the primary market in the form of OMOs. The prohibition against SBI purchases in the primary market by non-OMO participants applies to all investors, both residents and nonresidents. However, all investors may purchase SBIs freely in the secondary market.*” This was considered a control, pursuant rule 12. Also, because even though the restriction is of a monetary nature in its origin, it affects nonresidents.
- vii. In fci 2009-2012: “*Resident entities, including nonbank corporate entities, may borrow from nonresidents subject to compliance with the applicable regulations and the submission of periodic reports to the BI. Nonbank corporate entities intending to borrow are required to implement risk management procedures; meanwhile, for long-term foreign borrowing planning they must submit reports to BI presenting corporate foreign borrowing plan for one year, risk management analysis, rating (only for rated companies), financial ratios, and financial statements.*” This is a control, in consideration of “*subject to compliance with the applicable regulations*” and also because the requirement to comply with risk management procedures has the potential to be restrictive.

38. Islamic Republic of Iran

- i. In eq_plbn 1996-2002: “*Nonresidents may invest in instruments traded on the Teheran Stock Exchange, but the investment is not protected under the investment law.*” Although there is not an explicit restriction for nonresidents, we believe this might complicate capital transactions as no protection is guaranteed.
- ii. In 2014-2015 eq_plbn: “*Nonresidents must have a trading license and be authorized to trade in the securities or OTC market and on the exchange as indicated in the trading license*” This is interpreted to be a control, since in addition to the license they require to have an authorization.

- iii. In 2014-2015 bo_plbn: *“With a trading license, nonresidents may trade bonds or other debt securities with no limits”* This is not interpreted to be control, since they only require holding a license.

39. Ireland

- i. For 2006 to 2012 in dii we decided to keep it as no controls as the restrictions alluded to sectors without a macro dimension. M. Schindler also coded it that way in 2005.

40. Israel

- i. In de_plbn 2011-2012 (narrative in 2010 pdf): *“Effective January 27, 2011, banking corporations in Israel must meet a reserve requirement for foreign exchange derivative transactions by nonresidents. A 10% reserve requirement applies to shekel–foreign exchange swap transactions and shekel–foreign exchange forwards”* We think that this might have important macro implications as the banking sector is affected. Thus, we code it with ones.
- ii. In re_slbn 1998: *“Proceeds may be repatriated if the original source of the investment was foreign currency or a nonresident local currency account.”* We coded with ones.
- iii. In mm_siln 2001 there is a “no” with no narrative. It is coded with a zero.

41. Jamaica

- i. In eq_pabr (2011-2012), bo_pabr (2007-2012), ci_pabr (2011-2012), the following narrative is present: *“ADs, insurance companies, credit unions, building societies, cambios and exchange bureaus, unit trusts, and pension fund managers may not acquire foreign assets, except in accordance with MOF directives. According to these directives, securities dealers, insurance companies, pension funds, unit trusts, and other collective investment plans may acquire securities issued by the GOJ and securities issued or guaranteed by the governments of Canada, the United Kingdom, and the United States. Foreign assets may not exceed 5% of the total assets of insurance companies, pension funds, unit trusts, and other collective investment plans. These requirements are the standard minimum requirements and may change. Parties outside of these categories are not limited in their acquisition of foreign assets.”* Since there are restriction on pension funds and other sectors, we code it with ones.
- ii. The narrative in mm_pabr (2007-2012) is somewhat different *“For banks, licensed deposit-taking institutions, credit unions, building societies, cambios and exchange bureaus, unit trusts, and pension funds that acquire foreign assets as part of their business activities, the purchase must be in accordance with directives issued by the MOF or the BOJ. According to these directives, securities dealers,*

insurance companies, pension funds, unit trusts, and other collective investment programs may acquire securities issued by the GOJ and securities issued or guaranteed by the governments of Canada, the United Kingdom, and the United States. Foreign assets may not exceed 5% of the total assets of insurance companies, pension funds, unit trusts, and other collective investment programs. These requirements are the standard minimum requirements and may change. Jamaican residents may acquire foreign assets unless acquisition is prohibited by the foreign jurisdiction concerned. Parties outside of these categories are not limited in their acquisition of foreign assets.” Idem as above.

- iii. In 2007-2012 fci and dio were considered controls as there is the possibility to apply controls on capital flows.
- iv. In bo_plbn 2013: *“These transactions are subject to the Securities Act and the Securities (Commercial Paper) Regulations and any further requirements imposed by the FSC”* This was coded with ones, as these transactions are subject to the Securities Act. In 2014: *“These transactions are not subject to the Securities Act and the attendant regulations. The Securities Act and the attendant regulations do not impose any restrictions on the purchase of local securities by nonresidents. The law regulations apply to both residents and nonresidents. Similarly, the Exempt Distribution Guidelines apply to both residents and nonresidents. There is no minimum holding period”*. In 2015: *“In the case of exempt distributions, both residents and nonresidents must meet the criteria to be eligible to purchase the bonds or debt securities. Otherwise, the Securities Act and the attendant regulations do not impose any restrictions on the purchase of local bonds or debt securities by nonresidents. There is no minimum holding period”* The latter two narratives we do not interpret to mean that there are controls in place.

42. Kazakhstan

- i. For 2006 there did not seem to be much information on Section XI so we resorted to the changes in the end of the report which did seem to point out a change in the regime.
- ii. For dio in 2006 onwards (at least until 2011) we decided to keep coding it as a 0 because it only alluded to registration requirement for statistical purposes.
- iii. There were typos in eq_plbn (2006-2007), bo_plbn (2006-2007), mm_plbn (2003, 2005-2007) and ci_plbn (1998-2002, 2004-2007) (There are “yes” in the second column with no further information)
- iv. In 2010-2012 all pabr subcategories the following narrative is present: *“For statistical accounting purposes, residents must notify the NBK of completed foreign exchange transactions involving the purchase of securities issued by nonresidents if the transaction amount exceeds the equivalent of US\$100,000. As part of prudential regulation,*

restrictions have been established on investments of pension funds, insurance companies, and investment funds” (years prior to 2010 did not contain the second sentence). Please note that this pertains to three sectors: pension funds, insurance companies, and investment funds; thus, we believe that this might have a significant macro impact.

- v. In fci 2006-2007 and fco 2007-2009, we use the exception of rule 3(iii).
- vi. In derivatives (header) 2002: *“Present legislation has established only the concept of derivative instruments and does not define them. The accounting and registration of transactions with derivative securities traded on the organized securities markets are performed in accordance with the rules for securities exchange trading established by the trader. The foreign exchange legislation regulates operations in underlying assets of financial instruments, but it does not directly regulate derivative financial instruments.”* Subcategories were coded in accordance with rule 3(i).
- vii. Cci, cco, fci (in 2006) and fco (in 2007-2009) are coded as 1, since these are “yes” with no narratives.
- viii. fci in 2002-3003 is coded as 0: *“A registration certificate from the NBK is required for credits in an amount exceeding the equivalent of \$100,000 with a maturity of more than 120 days”* The registration is not deemed to be a control.

43. Kenya

- i. In 2003-2005 eq_plbn the following must be considered as a control, since it is a clear quantity restriction (rule 6): *“A minimum of 25% of the share capital of a listed company must be held by domestic investors”* This narrative continues until 2006 (nonetheless, we coded it with a one).

44. Korea

- i. For dio in 2006 we noticed that there were controls, as per our set of criteria, between January and February of 2006, but they were removed ever since and there were only allusions to controls on a very small sector. So we decided to code it as 0 for that year.
- ii. In eq_siln 2000-2012 we decided to code with zeros, as there was only a notification requirement (rule 14). Please note that we changed Schindler’s original coding in 2000-2005.
- iii. In ci_siln 2006-2007: *“Foreign institutions may issue collective investment securities in the domestic market, provided they establish themselves in Korea and submit a notification to the FSC. However, if collective investment securities are sold through a domestic distributor, a notification to the FSC is not required.”* This is a control, considering the requirement that the foreign institutions must establish themselves in Korea.

- iv. In dii 2004-2012: “*Nonresidents are free to invest in Korea as long as they meet the requirements specified by the relevant laws. Controls apply to (1) investment in primary sectors, as follows: (a) the growing of rice and barley; (b) cattle husbandry and the wholesale selling of meat if foreign investors hold 50% or more of the share capital; (c) coastal and inshore fishery if foreign investors hold 50% or more of the share capital; (d) production and provision of fuel for nuclear electric power generation; (e) electric power generation if nuclear power is used or if foreign investors purchase more than 30% of the total amount of electric power generation facilities in Korea from Korea Electric Power Corporation; and (f) electric power transmission, and electric power distribution and supply if foreign investors hold 50% or more of the share capital or if a foreign investor would become the single largest shareholder; (2) establishment of financial institutions, as follows: (a) domestic banks, except commercial banks and regional banks; and (b) investment trust companies; (3) investment in the transport sector, as follows: (a) airline companies if foreign investors hold 50% or more of the share capital; and (b) shipping companies engaged in cabotage, except those transporting passengers or cargo between the Republic of Korea and the Democratic People’s Republic of Korea in partnership with shipping companies of the Republic of Korea if foreign investors hold less than 50% of the share capital; (4) investment in the communications sector, as follows: (a) news agencies if foreign investors hold 25% or more of the share capital; (b) enterprises publishing newspapers if foreign investors hold 30% or more of the share capital; (c) enterprises publishing periodicals if foreign investors hold 50% or more of the share capital; (d) broadcasting companies, except if foreign investors hold 33% or less of the share capital in the case of satellite broadcasters or 49% or less of the share capital in the case of general cable broadcasters; (e) businesses using broadcasting channels if foreign investors hold more than 49% of the share capital; and (f) telecommunications (including services leasing related facilities) if foreign investors hold more than 49% of the share capital; and (5) investment in designated resident public sector utilities in the process of privatization, in cases in which the investment in question would bring individual or aggregate holdings of foreign investors above the respective percentages of the firms’ outstanding shares allowed by the relevant laws.*” Although the composition of the restricted sectors changes throughout the years, in all cases we deem that there is a significant macro impact that must be reflected with ones (rule 7(ii)).
- v. In dio 2008-2012: “*Residents are free to invest abroad on notification to designated foreign exchange banks. Effective July 25, 2008, overseas investment by financial institutions and insurance companies requires FSC (previously, MOSF) notification and approval. Certain examination requirements, such as financing and appropriateness,*

are applicable only for investments in the banking and insurance businesses” We do not consider this measure to be a control, since it affects the bank’s own position and not its intermediary position.

- vi. (Point raised by Mai Li, Columbia University) In *de_pabr*, the following narrative appears for the first time in 2013: “*The maximum derivatives trading limit, including forward transactions, for corporate clients is 100% of real transactions (imports and exports) hedged. Effective January 1, 2013, the limits on banks’ foreign exchange derivatives contracts were reduced from 40% to 30% of bank capital (for domestic banks) and from 200% to 150% (for foreign bank branches)*”. However, by using external information³, it was pointed out to us that the measure alluded in the foregoing narrative was implemented in October 2010. Therefore, we revised our coding in the years 2010-2012 from zero to one, pursuant rule 6.

45. Kuwait

- i. In *eq_plbn* 2006-2012, the following narrative is present: “Controls apply to banks and financing companies subject to CBK supervision” We interpret that this restriction is intended to apply to nonresidents purchasing equity, therefore, this is taken to be a control.

46. Kyrgyz Republic

- i. In *eq_siln* 1998-1999: “*The same regulations apply as for purchases in the country by nonresidents.*” Keeping this in mind, we decided to change Schindler’s original coding since *plbn* has only a registration requirement.
- ii. In *bo_plbn*, *bo_siln* and *bo_siar* (2002-2004) and *bo_pabr* (2003): we changed Schindler’s original coding, pursuant rule 3(i).
- iii. There were typos in *bo_siar* 2007-2012. There is a “no” with no further information.
- iv. In *dii* 2007-2013: “*All direct investment enterprises must be registered with the Ministry of Justice, statistical agencies, the social fund, and the tax inspectorate. Acquisition of more than 10% of the shares of a bank is subject to approval by the NBKR. Legal entities not engaged in financial activity may not own more than 20% of a bank’s voting shares.*” This was not considered a control, in spite of the fact that the restriction affects banks.
- v. In *derivatives* (header) 1996-2012: “*Currently these instruments are not regulated, given the lack of such instruments.*” In 2000, we decided to set all subcategories as not regulated “*n.r*”, despite the fact that there are “yes” in the second column for all subcategories, since this header remains unchanged.

³ Financial Times, 06/10/2010, “South Korea set to limit currency forward trading”. Available at: <https://www.ft.com/content/189e3a50-74aa-11df-aed7-00144feabdc0>

- vi. fci in 2009-2013 is coded as 1: *“Investment funds may not borrow capital if the total volume of the credit (loan) subject to repayment will exceed 10% of the value of the net assets of the investment fund on the date the credit (loan) agreement is signed. The credit (loan) may be obtained for a period of not more than six months, without right of extension. The credit (loan) agreement may be executed by a joint-stock investment fund or the management company of a mutual fund exclusively to satisfy a short-term need for money to redeem securities issued by the investment fund”* The regulations of investment fund borrowing and controls on credits are considered to be a control.

47. Latvia

- i. In re_plbn 1995: *“No restrictions for purchase of buildings; as to purchase of land some restrictions still exist, though the land market is being gradually liberalized.”* We coded with ones.

48. Lebanon

- i. In 2002, 2004-2012 eq_siar and bo_siar: *“Banks and financial institutions require prior BDL approval to issue shares locally or abroad”* Banking sector is assumed to have an important macroeconomic impact. Therefore, a restriction in that sector is coded with ones.
- ii. In 2004-2012 ci_pabr: *“The limit for banks is set by Article 153 of the Code of Money and Credit.”* Idem as above.
- iii. In 2004-2013 dio: *“Direct investments abroad by banks require prior BDL approval and are subject to the limit set by Article 153 of the Code of Money and Credit.”* Idem as above.
- iv. In 2008-2013 eq_plbn: *“Limits are imposed on the acquisition of shares in real estate companies. Effective June 10, 2008, acquisition of shares in financial institutions (other than banks) is subject to the prior approval of BDL Central Council if (1) the shares to be acquired exceed 10% of the financial institution’s total shares; (2) the purchaser already holds 10% or more of the financial institution’s shares; or (3) the purchaser is a member of the board of directors, irrespective of the number of shares to be sold. The 10% limit is applicable to spouses, minors, and any economic group. Previously, approval was required in the following cases: (1) the shares to be acquired represented more than 5% of total shares or voting rights. (2) the purchaser already held more than 5% of total shares or voting rights. (3) the purchaser or seller of the shares was a member of the senior management of the bank involved. (4) the purchaser or seller of the listed shares was a member of senior management or an employee of the bank involved and held more than 1% of the total*

- shares. Prior authorization and regulations applied also to the ascendants and descendants of the bank employee” Idem as above.*
- v. In *de_pabr* 1998-2003: *“There is no control on purchasing derivatives or any financial instruments from abroad. Banks, however, unlike financial institutions and brokerage firms, need the prior approval of the central bank to engage in derivative transactions for their own account.” Idem as above.*
 - vi. In *de_pabr* 2004-2005 (narrative in 2004 pdf): *“There are no controls on purchases of derivatives or any financial instruments from abroad. However, effective March 8, 2004, banks, unlike other financial institutions and brokerage firms, may engage in derivative transactions locally or abroad for hedging purposes only.” Idem as above.*
 - vii. In *de_pabr* 2006-2007: *“There are no controls on purchases of derivatives or any financial instruments from abroad. However banks, unlike other financial institutions and brokerage firms, may engage, for their own accounts, in derivative transactions locally or abroad for hedging purposes only. Banks and financial institutions are prohibited from carrying out for their own account, with nonresident sectors and in any currency, operations on structured financial instruments, except for capital-guaranteed structured financial instruments rated A and above, provided their total nominal value does not exceed 25% of Tier I capital of the concerned banks and financial institutions. When the structured financial products are issued by companies, the latter should be supervised by countries rated at least BBB. Moreover, the total value of corporate bonds and structured financial instruments carried out with one issuer should not exceed 10% of Tier I capital.” Idem as above.*
 - viii. In *de_pabr* and *de_siar* 2008-2010: *“There are no controls on purchases of derivatives or any financial instruments from abroad. However, banks, unlike other financial institutions and brokerage firms, may engage, for their own accounts, in derivative transactions locally or abroad, for hedging purposes only. Banks and financial institutions are prohibited from carrying out for their own accounts, with nonresident sectors and in any currency, operations in structured financial instruments, except for capital-guaranteed structured financial instruments rated A or higher, with returns not linked to a barrier, provided their total nominal value does not exceed 25% of tier I capital of the banks and financial institutions involved. When the structured financial products are issued by companies, the companies should be supervised by countries with a sovereign rating of at least BBB. Moreover, the total value of corporate bonds and structured financial instruments from a single issuer should not exceed 10% of tier I capital. Furthermore, banks and financial institutions are prohibited from dealing, for their own account, with nonresident entities, in credit-linked notes related to Lebanese Eurobonds and BDL CDs denominated in foreign currencies, except*

for (1) notes that are capital guaranteed in the case of a credit event, such as default on Eurobonds or BDL CDs, and (2) notes issued or guaranteed by an at least A-rated issuer or guarantor, on condition of mandatory payment and delivery of the Eurobonds and BDL CDs to clients when the credit event occurs. The nominal value of these credit-linked notes should not exceed 10% of the capital of the bank or financial institution.” This is even more restrictive. For this reason, we keep on coding with ones. Please note that de_siar has its own narrative, but it is identical to the one in de_pabr.

- ix. In eq_siln 2013 (not in 2012): “Operations with financial instruments must be authorized by the CMA. Principal or secondary professional activity that involves solicitation of clients for subscription, purchase, swap, or sale of securities or financial instruments also requires CMA authorization. Legal entities may not undertake a public subscription without CMA approval. Issuance, sale, or offer to sell financial instruments for public subscription is also prohibited. Invitations to potential investors concerning such financial instruments are prohibited without CMA approval (Law No. 161). Effective February 13, 2014, banks, financial institutions, financial intermediation companies, and collective investment plans, resident or not, may not issue or market the following products without authorization from the CMA: (1) securities and financial products, including those with revenue linked to stock, shares, and CDs, including their financial flows; commercial debt, bonds, certificates, government bonds and debt securities, including their financial flows; currency exchange rates; precious metals; interest rates; commodity prices; indexes and financial derivatives; the occurrence of events and rights belonging to the issuer of whatever nature; and (2) securities and financial products resulting from securitization operations of any kind (CMA Decision No. 16 of February 13, 2014).” We are not certain if this applies in previous years, as it was not recorded in earlier reports. For this reason, we only consider this regulation to be a control in 2013.

49. Malaysia

- i. In gso 1995-2001: “These transactions are permitted. However, any payment to a nonresident in relation to or consequential to the guarantee must be made in foreign currency” We coded with zeros.

50. Malta

- i. In eq_plbn 2005-2011 we coded in accordance with rule 3(i). Please note that this means that we changed Schindler’s original coding in 2005.
- ii. In derivatives (header) 1997: “Such instruments have not been introduced or issued” Subcategories were coded pursuant rule 3(i).
- iii. gso in 2002 is coded as 0: “Effective January 1, 2002, these transactions are fully liberalized” There are no controls in place.

- iv. dio in 2003 is coded as 1: *“There are no limits on the amount that resident individuals may transfer abroad for direct investment purposes. Approval for such investment, however, is subject to the condition that the resident acquires a controlling interest in the overseas company”* This is considered to be a control as approval is indeed considered to be a restriction to capital flows.

51. Mexico

- i. In ci_pabr 2005-2012 we coded it with ones, as there are restrictions in pension funds and other sectors.
- ii. In eq_plbn 1997-2012: *“Purchase of shares and other securities of a participating nature may be affected by the laws on inward direct investment and establishment. Such laws specify activities where investment is reserved to the government or Mexican investors. Notwithstanding these restrictions, if certain requirements are met, the Foreign Investment Law allows foreign investors to purchase equity securities traded on the Mexican Stock Exchange (MSE). Thus, with the authorization of the MOE, investment trusts may be established by Mexican banks acting as trustees. These trusts issue ordinary participation certificates that may be acquired by foreign investors; the certificates grant only economic rights to their holders and do not confer voting rights in the companies whose stock is held by the trusts (such voting rights being exercisable only by the trustee).”* This is considered to be a control, bearing in mind that there is an authorization requirement and nonresidents may not purchase shares with voting rights.
- iii. In eq_pabr (2005-2012), bo_pabr (2005-2007) and mm_pabr (2005-2008): *“MOF authorization is required for banks and securities firms to purchase shares of foreign financial intermediaries. Controls apply to the purchase (1) of foreign securities by securities firms on their own account and on the account of their clients; and (2) by an insurance company or a privately managed pension fund of securities denominated in foreign currency, with the exceptions of capital market instruments registered in the NRS and of securities issued in foreign currency by the federal government or payable abroad by Mexican financial institutions or by foreign financial entities that are affiliates of these.”* This is considered to be a control for two reasons. First, we believe that the controls described in the second sentence apply as a general restriction and not only to the purchase of shares of foreign financial intermediaries; and, second, there is a restriction on pension funds, which we deem to have an important macro impact.
- iv. In bo_siar 2008: *“The rules applicable to shares or other securities of a participating nature apply. Controls apply to the purchase (1) of foreign securities by banks and securities firms on their own behalf and on behalf of their clients; and (2) by an insurance company or a privately managed pension fund of securities denominated in foreign*

currency, with the exceptions of capital market instruments registered in the NRS and of securities issued in foreign currency by the federal government or payable abroad by Mexican financial institutions or their foreign affiliates.” I believe that this might have been a mistake in the report, as this narrative does not make any sense in “sale or issue abroad by residents”. We consider that this belonged to *pabr*, which in 2009 incorporates this narrative, and in that year it disappears from *siar*. In consequence, we code it with a zero, as we think that it is a mistake in the report.

- v. In *mm_siar* 2008 idem to *bo_siar*.
- vi. In *de_siln* 1995-1997: “*The warrants should be issued referred to shares registered at the Mexican Stock Exchange and portfolio of representatives shares of the capital of corporations registered at the mentioned Stock Exchange. In addition, it is required by the provisions issued by the NBSC that the issuer of the mentioned derivative be a corporation with shares registered at the National Registry of Securities and Intermediaries*” Although there is apparently only a registration requirement, it seems like there is an underlying control since companies wishing to issue derivatives in Mexico must trade their shares in the Mexican Stock Exchange. We coded with ones.
- vii. In *de_pabr* 1995: “*Purchases by securities firms for their own account and by financial institutions, if the security is denominated in domestic currency, are not allowed.*” We coded this with ones.
- viii. In *de_pabr* 2005: “*Controls apply to purchase of or swap operations in instruments and claims on a foreign financial market by an insurance company or a private pension fund.*” Idem as (iii) above.
- ix. In *gsi* 1995: “*The BOM has recommended that residents not receive sureties, guarantees or financial back-up facilities denominated in domestic currency from nonresident entities. Nevertheless there is no regulation prohibiting these operations.*” We coded with ones.
- x. In *re_plbn* 1995-2012: “*The restrictions are the following: (1) The acquisition by foreign nonresidents of real estate outside a 100-kilometer strip alongside the Mexican land border and a 50-kilometer strip inland from the Mexican coast, provided the investor agrees to consider himself Mexican and to refrain from invoking the protection of his government regarding the property thus acquired; (2) The acquisition by foreign nonresidents of real estate through a real estate trust within the zone defined above.*” We coded with ones.
- xi. *eq_pabr* in 1999-2004 is coded as 1: “*Controls apply to the purchases of foreign securities by Mexican securities firms and banks for their own account.*” in 1999-2000 and “*MOF authorization is required for banks, securities firms, and securities specialists to purchase shares of foreign financial intermediaries.*” Authorization and controls on purchases on own accounts are deemed to be controls.
- xii. *dii* in 2000-2004 are coded as 1: “*If certain conditions are satisfied, the ownership by foreign investors of 100% of the capital stock of a*

Mexican company is permitted. The law sets forth which activities of the economy are reserved to the government or to Mexican investors and lists the different activities in which foreign investment may not exceed 10%, 25%, and 49% of the total investment” is a control, because there are many restrictions to foreign direct investment.

52. Moldova

- i. In bo_plbn 2003-2006 we decided to code it as a control, despite the fact that there is no narrative, since the information that we use in 2007 to set it as a control, is available in previous years in the “Controls on capital and money market instruments” header.
- ii. In ldi 2004-2008: *“Foreign investors may transfer abroad funds obtained domestically as a result of liquidation of direct investment after having fulfilled all fiscal obligations. Proceeds from the liquidation or sale of investments abroad must be repatriated to Moldova, except for proceeds that are reinvested abroad in investments not subject to NBM approval.”* We think that this is a control for the reason that a NBM approval is required (rule 6) and there are controls to the repatriation of capitals (rule 11).
- iii. cco in 2006 is coded as 0: *“NBM approval is not required for commercial borrowings or credits from residents to nonresidents”* Therefore, it is not a control.
- iv. In fci 1995: There is a “yes” with no narrative.
- v. In bo_siar and mm_siar 1999: *“NBM registration is required”*. This is coded with zeros as registration requirements are not deemed to be controls.
- vi. In eq_siar 2003, bo_siar 2003, mm_siar 2004-2007, ci_siar 2004-2010 are “n.r” (not regulated) entries.

53. Morocco

- i. For ldi 2006-2013, pursuant rule 2, we decided to code it with zeros.
- ii. In ci_plbn 2005-2006, a conflict of rules arises: On the one hand, the header states that collective investments follow the same rules as money market instruments (i.e. mm_plbn=0) –rule 3(iii)-. On the other hand, ci_plbn has a “yes” with no further information –rule 3(i)-. In this case, it should prevail rule 3(i).
- iii. In de_plbn (1995-2004) and de_siln (2002-2004): *“These instruments have not been developed in Morocco”* It was coded in accordance with rule 3(i).
- iv. cci in 2005 is coded as 0: *“Importers may obtain commercial credits abroad and transfer payments of interest and principal”* as there are no apparent controls.
- v. ci_siln in 1999 is coded as 0, since there is a “no” with no narrative.

- vi. In cci 2005: “*Importers may obtain commercial credits abroad and transfer payments of interest and principal*” which does not seem to entail any form of restriction. Thus, it is coded with a zero.

54. New Zealand

- i. For dii in 2009, 2010 and 2011 we decided to impose controls based on one sentence that repeated in each report that alluded to the requirement that “consent is needed“ (which we take as authorization) for “the establishment by an overseas person of a business in New Zealand if the business operates for more than 90 days in any year”.

55. Nicaragua

- i. In fci 2009-2012, considering that those credits are subject to specific regulation, we believe that this is a control.
- ii. In dii 2007-2012: “*Investment related to development of the country’s natural resources require approval from the government institutions responsible for administering such development (Ministry of the Environment and Natural Resources, Ministry of Energy and Mines, MIFIC). Other types of investments also require government approval to benefit from the investment law (National Commission of Free Zones, Nicaraguan Institute of Tourism, other institutions). Under the Foreign Investment Law, investors must report their investments to the CBN, directly or through commercial banks. Foreign investment in the financial system is subject to SIBOIF procedures (General Law on Banks, Nonbank Financial Institutions, and Financial Groups)*” We set it as a no-control, because investments in natural resources do not have sizeable macro impacts.

56. Norway

- i. In de_pabr 2002-2012: “*Effective March 6, 2002, collective investment schemes, insurance companies, and private funds are subject to nondiscriminatory limitations on exposure to derivatives.*” This is considered to be a control since there are restrictions for investment schemes and private funds.
- ii. In re_plbn 2002: “*There are limitations on nonresidents’ purchases of houses for recreational purposes and on real estate in the agricultural sector.*” We coded with ones, since this might be important.

57. Oman

- i. In eq_plbn 1996-2005: “*Foreign share ownership in Omani companies is generally limited to 70%, but it may be raised to 100%. A nonresident portfolio investor may not hold more than 10% of the shares in an Omani company*” Pursuant rule 6, this was considered a control.

58. Pakistan

- i. There is a very strict restriction in eq_plbn 2008-2012. The report shows: “*A company may allocate up to 20% of a public offering to Pakistanis abroad*”. Thus, we conclude that persons that nonresidents do not have the Pakistani nationality may not purchase equity in Pakistan; and, that Pakistan nationals have a quantity restriction.
- ii. In 2002-2005 mm_plbn: “*No controls apply to the purchase of certificates of investment, PIBs, MTBs, and term finance certificates by nonresidents*” Please note that this narrative is treated differently across the sample, since in years prior to 2002, it was not considered as a control. Therefore, this should be coded with zeros.
- iii. In de_plbn 1995-2002: “*Only rights shares exist*” We interpret this information to be a control.
- iv. In re_slbn 2001-2003: “*Sales of real estate by nonresidents engaged in real estate businesses are permitted.*” We do not see that there is a control in place, therefore, we coded with zeros.
- v. de_pabr in 2011-2012 is coded as 1: “*Banks are permitted to enter into derivative transactions abroad to cover their positions for permissible categories without SBP approval*” This is interpreted to be a control as approval is not required only for permissible categories.

59. Paraguay

- i. In 2011 and 2012 several categories have the following narrative: “*Entities supervised by the Superintendency of Banks may not sell, assign, or transfer their shares to individuals or legal entities domiciled in countries deemed to be tax havens.*” This not considered being a control because the number of countries deemed to be tax heavens is very limited.
- ii. In 2007-2011, fco was coded with ones since there is an allusion to a ceiling.
- iii. In 2007-2012 mm_plbn: “*There are controls on these transactions; however, nonresidents may purchase monetary policy instruments through resident banks*” Although nonresidents are permitted to purchase through resident banks, we still believe that this is a restriction.
- iv. In re_plbn 2007-2012: “*These transactions are not restricted, except that foreigners may not purchase land within 50 kilometers of the border.*” We coded with zeros, since we think that this might be motivated in factors other than economic ones (e.g. national security reasons).

60. Peru

- i. In de_plbn (2010) and de_siln (2010-2012): “*Effective March 22, 2010, income tax at a rate of 30% is levied on earnings from financial derivative operations by nondomiciled operators, quoting the*

underlying asset at the exchange rate of the domestic currency to a foreign currency, provided its effective maturity is less than 60 calendar days (DS 011-2010-EF). This equates the income tax treatment of nonresidents with that of residents.” This was coded with ones.

61. Philippines

- i. For eq_plbn 2006 onwards we decided to have a 1 because it alluded to a requirement for a third party to hold onto the purchased security by the non-resident as a custodian. We have never encountered this form but considered it as a control that is intended to “put sands in the wheels of capital markets”.
- ii. In 2007, ldi was coded to match bo_plbn, since: *“The regulations governing purchase locally by nonresidents of bonds or other securities apply.”*
- iii. In 2002-2008 fco: *“These transactions may be freely undertaken if they do not involve foreign exchange purchased from the domestic banking system”* In 2009-2012 (change first recorded in 2008 report): *“These transactions may be freely undertaken if these do not involve foreign exchange purchased from AABs and AABforex corporations”* This was taken as a control, since there probably was an important effect on currency exchange regulation.
- iv. In de_plbn 1997-1998: *“Effective July 22, 1997, per Circular No. 135, all forward contracts to sell foreign exchange to nonresidents (including offshore banking units) with no full delivery of principal, including cancellations, rollovers/renewals thereof, shall be submitted for prior clearance to the BSP.”* This is a control for the clearance requirement (rule 5).
- v. In cco 1995: *“No restrictions are applied except when credit involves the export of regulated or prohibited commodities. No prior BSP approval is required for specified commercial transactions.”* We coded this as a control, in consideration that there is a restriction on a certain set of goods.
- vi. In re_slbn 1996-1998: *“For sale of real estate by nonresidents not pertaining to BSP registered investments, they may purchase only as much foreign exchange as they sold to AABs for pesos.”* We coded with ones.
- vii. In cco 2004-2008: *“These transactions may be freely conducted provided they do not involve foreign exchange purchased from the banking system.”*
In 2009-2012 the narrative changes: *“These transactions may be freely undertaken, provided they do not involve foreign exchange purchased from AABs and AAB-forex corporations (effective March 8, 2009; previously, from the domestic banking system).”* We code with ones, in spite of the fact that there might have been exchange controls reasons.

- viii. eq_plbn in 2003 is coded as 0: “Registration with the BSP or a designated custodian bank is not mandatory. Registration is necessary only if the source of the foreign exchange needed for capital repatriation and remittance of dividends, profits, and earnings that accrue thereon will be purchased from the domestic banking system.” Registration is not considered to be a control.
- ix. dii in 2003 is coded as 0: “Inward investments need not be registered with the BSP if the capital repatriation or dividend or profit remittances will not involve the purchase of foreign exchange from the domestic banking system.” Registration is not considered to be a control, as stated above.

62. Poland

- i. In eq_pabr and ci_pabr 2005-2007: “Controls apply to the purchase of securities issued by nonresidents (1) from third countries (other than EU, EEA, and OECD countries) with which Poland has not entered into agreements for the promotion and protection of investments; and (2) if these assets are to form more than 5% of the cover of the technical reserves of an insurance company, or of the assets representative of the liabilities of a privately managed occupational pension fund.” This is coded as a control as it affects pension funds and insurance companies.
- ii. In bo_pabr and mm_pabr 2005-2007: “Controls apply to the purchase of securities issued by nonresidents if these assets are to form more than 5% of the cover of the technical reserves of an insurance company, or of the assets representative of the liabilities of a privately managed occupational pension fund.” Idem as above.
- iii. In dii 1995-1998: “New businesses need to register only with local courts, with the exception of (1) mergers with state-owned companies if state assets are to be used for more than six months or if state assets will become part of the capital, and (2) investments in the areas of air transport, broadcasting, insurance, domestic long distance or mobile telecommunications, and gambling and betting. Imports of capital goods for new joint ventures are exempt from customs duties. Although the law does not stipulate a minimum amount of capital that foreign nationals must invest in Poland, the minimum capital requirement set forth in the Polish commercial code for a limited liability or equity company is in effect and is applied to foreign investment.” This is considered to be a control since there are restrictions for several sector and also because there is a minimum requirement of capital in accordance with the commercial code.
- iv. In dii 1999-2004: “There are no controls in the foreign exchange law, but there are sectoral restrictions.” This is considered to be a control, pursuant the second sentence of rule 7(ii) for “sectoral restrictions”

- v. In dii 2005-2012: *“Controls apply to (1) the operation of a branch as a “mortgage bank” to the extent that a “mortgage bank” is defined under Polish law as an institution authorized to issue mortgage securities on domestic markets, and thereby reserved to financial institutions incorporated under domestic law; (2) the provision of asset management services by branches of nonresident investors to domestic pension funds; (3) the acquisition of land reserved for agriculture or forests, and acquisition of water areas, unless authorization is granted; (4) investment in an enterprise operating an airline, exceeding 49% of the share capital; (5) investment in a broadcasting company bringing foreign ownership of the share capital above 33%; (6) investment in an enterprise operating in the gambling and betting sector, except through an enterprise incorporated in Poland in which foreign ownership of the capital is 49% or less; and (7) investment in a registered vessel, except through an enterprise incorporated in Poland.”*

In 2006-2012, the narrative is similar: *“Controls apply to (1) the provision of asset management services by branches of nonresident investors to domestic pension funds; (2) the acquisition of land reserved for agriculture or forests, and acquisition of water areas, unless authorization is granted; (3) investment in an enterprise operating an airline exceeding 49% of the share capital; (4) investment in a broadcasting company bringing foreign ownership of the share capital above 33%; (5) investment in an enterprise operating in the gambling and betting sector, except through an enterprise incorporated in Poland in which foreign ownership of the capital is 49% or less; and (6) investment in a registered vessel, except through an enterprise incorporated in Poland. In addition, (7) mortgage banks are not authorized to open cross-border branches; the single EU passport principle does not apply to them. A bank may open a branch in Poland, however, if it does not have the ability to issue mortgage bonds on the territory of the host country”* We do believe that this is a control because even though the sector affected are not constant throughout the years, in all cases, the restrictions in place have might have a significant macro impact.

- vi. In fco 2009-2012: *“Privately managed occupational pension funds are not allowed to grant credits and loans to nonresidents. Assets of insurance companies may be placed solely in the territory of EU member countries when the risk is situated in the territory of an EU member country, and a general permission issued by the minister responsible for financial institutions is required for the acquisition of assets located outside EU member countries that cover the technical provisions of an insurance company”* Idem as above.
- vii. In fco 2007: *“Controls apply to credits and loans granted by an insurance company, if these assets are to form more than 5% of the cover of its technical reserves, or of the assets representative of the*

liabilities of a privately managed occupational pension fund.” Idem as above.

- viii. In re_plbn 1996-1998: “*Until recently, nonresidents could acquire real estate or other immovable property in Poland only with permission from the Ministry of the Interior, except in the form of an inheritance. The amended Law on Acquisition of Real Estate by Foreigners, which went into effect on May 4, 1996, maintained this general rule, but introduced several important exemptions. Foreigners may acquire real estate without permit if (1) it is a separate apartment; (2) they have lived in Poland for at least 5 years after getting a permanent residence visa; (3) they are married to a Polish citizen for at least 2 years (purchased real estate must form a part of matrimonial community of property); or (4) real estate is purchased by nonresident legal persons for statutory purposes, and the area of real estate does not exceed 4,000 square meters in urban areas. The Council of Ministers may issue a regulation defining other cases where a permit is not required, providing that the area of acquired real estate does not exceed 4,000 square meters in urban and 10,000 square meters in rural areas. The Council of Ministers may also extend the area to be acquired without permit to 12,000 square meters in urban and 30,000 square meters in rural areas.*” We still consider that this must be coded with ones, pursuant rule 5 (permit).
- ix. In gso 1999-2001: “*An NBP foreign exchange permit is required for guarantee transactions related to claims that are the result of restricted foreign exchange transactions*” We coded with ones.
- x. In ci_siar 2013: “*For UCITS, coordinated procedures from UCITS IV apply. Implementation process of the AIFMD has not been completed yet.*” We coded with zero. In ci_plbn 2013 it is explained that the ‘coordinated procedures’ are in reference to notification requirements.
- xi. Cco in 2008 is coded with a zero, as there is a “no” with no narrative.
- xii. mm_siar in 2002-2003 is coded as 1: “*The regulations governing bonds or other debt securities apply*”; and bonds have controls in place for all types of transactions. In this case, it is clear that all transactions of bonds are controlled, as well as the sale or issue abroad of money market instruments.

63. Portugal

- i. In all subcategories of pabr and fco 2005: “*Controls apply to the purchase by a private pension fund of securities issued by nonresidents that would cause the sum of its foreign assets to exceed 20% of its total assets.*” Considering the restriction on pension funds, we take this to be a control.
- ii. The following narrative in ci_siar 2006-2012 is treated inconsistently: “*In the case of UCITS regulated by the EU directive, the CMVM has jurisdiction, even when they are marketed in other EU countries (Article 79 of Decree-Law 252/2003, dated October 17, 2003, with*

amendments introduced by Decree-Law 52/2006, dated March 15, 2006, and by Decree- Law 357-A, dated October 31, 2007)” Keeping in mind that the CMVM has jurisdiction, we believe that there is the possibility of the imposition on capital flows.

- iii. In de_pabr 2005 (only this year): *“Controls apply to purchases of or swap operations in instruments and claims on a foreign financial market by a private pension fund that would cause the sum of its foreign assets to exceed 20% of its total assets.”* Idem as (i) above.
- iv. In mm_siln 2013: *“Pursuant to Article 12(2) of Decree-Law No. 69/2004, of March 25, 2004, as amended by Decree-Laws Nos. 52/2006, of March 15, 2006, and 29/2014, of February 25, 2014, before commercial paper is offered to residents, the issuer must prepare an information document for CMVM approval. Furthermore, according to Article 17(8), issuance of commercial paper for which a prospectus is optional is subject to the same requirements as public offers for which a prospectus is mandatory under the securities law.”* We interpret that this regulation is already in force in 2013. However, we acknowledge that it is possible that controls were in place in previous years, but we are not able to establish the date since a reference thereof is omitted in earlier reports.
- v. In ci_siar 2012: *“In the case of UCITS and pursuant to Directive No. 2009/65/EC (UCITS IV Directive), the CMVM, as the home-country authority, sends “passport” notifications to the relevant authority in the EU host country where the units are to be marketed. Management companies authorized in the EEA may also establish UCITS in another member country”* is coded as a control, as management companies must be authorized.
- vi. fco in 2010 is coded as 0 as there is a zero with no narrative.
- vii. dio in 2005-2009 is coded as 1: *“Controls apply to establishment in non-EC member countries of branches and subsidiaries of (1) credit institutions and financial companies (“sociedades financieras”); and (2) financial companies that are not subsidiaries of credit institutions, as defined in Article 18(2) of EC Directive 89/646, dated December 15, 1989.”* As controls apply to the financial institutions it is considered to be a control, because we have assumed that restrictions to the financial sector have a large macroeconomic impact.

64. Qatar

- i. For dii in 2006 onwards we decided to keep it as a non-control because it alluded to pretty much all sectors where people could have foreign ownership.
- ii. Restrictions on FDI in real estate controls are not counted as controls as it pertains to a different category in the AREAER reports.
- iii. In eq_plbn 2005: *“A limit of 25% on ownership applies to nationals of other countries.”* This is a clear control, pursuant rule 6.

65. Romania

- i. In de_plbn 2001-2003: “*Derivatives may be purchased freely on capital markets, but the purchase of derivatives on money markets is subject to NBR authorization.*” This is a control because of the authorization requirement (rule 5).
- ii. fci in 2003 is coded as 0: “*Effective January 1, 2003, financial credits with a short-term maturity no longer require NBR authorization*” Transactions were liberalized in 2003 and, therefore, no controls are in place.
- iii. dii in 1999-2001 is coded as 1: “*Investments of more than 5% in banks require NBR authorization*” there is an authorization requirement involving a sector with the potential to have a large macroeconomic impact.

66. Russian Federation (Russia)

- i. In eq_siln 2004-2008: “*Initial placement or trading of securities issued by nonresidents on the domestic market is allowed after their prospectus is registered with the Financial Markets Service (FSFR).*” This is not a control, in accordance with rule 14.
Please note that this decision affects bo_siln 2004-2005 as well, since: “*Regulations governing shares or other securities of a participating nature apply.*”
- ii. In dii 2007-2009: “*Direct investment by nonresidents individually or as part of a group of persons in the authorized capital of operating credit institutions, comprising more than 1% of the stock (stake) of the credit institution may be effected with CBR notification; investment exceeding 20% of the stock (stake in the authorized capital) of the credit institution may be effected with preliminary consent of the CBR. Direct investment by nonresidents in the authorized capital of credit institutions that are being established may be effected on the basis of permission from the CBR.*” Restrictions on credit institutions are deemed to have a large macroeconomic impact. Thus, we code with ones.
- iii. In dio 2007-2009: “*Direct investment by resident credit institutions associated with the acquisition of stocks (stakes) of foreign organizations and not leading to the establishment of subsidiaries abroad may be effected without restriction. Investment by credit institutions to establish or acquire subsidiaries abroad may be effected only by banks having a general license and equity resources (capital) of at least €5 million, with permission from and in accordance with the requirements of the CBR. Subsequent investment by banks in the authorized capital of foreign subsidiaries may be effected following notification. In accordance with an international agreement concluded between the Russian Federation and Belarus, Russian banks satisfying the aforementioned requirements with*

respect to having a general license and equity resources (capital) may invest in the authorized capital of banks following notification procedures. Direct investment by resident juridical persons that are not credit institutions may take place freely” Idem as above.

- iv. In bo_plbn 2010-2011: *“There are no restrictions on purchases of bonds or other debt securities by nonresidents from nonresidents or residents. Transactions between nonresidents with domestic securities in the territory of the Russian Federation are performed under requirements set out in the antimonopoly and the securities market law. The securities issuer may set limitations on the purchase of securities by nonresidents”* We believe that the foregoing is a restriction, because of the last sentence.

- v. In bo_siln 2010-2013: *“Under the foreign exchange law, there are no restrictions on the sale or issuance of bonds or other debt securities by nonresidents.*

The placing and trading of securities issued by foreign issuers in the Russian Federation are governed by the law on the securities market. According to Article 51.1 of Federal Law No. 39-FZ of April 22, 1996, on the Securities Market: (1) Foreign financial instruments may be traded in the Russian Federation as securities of foreign issuers, provided all the following conditions are met: (a) Foreign financial instruments are assigned an international securities identification code (number) and an international financial instrument classification code. (b) Foreign financial instruments are classified as securities in the manner set by the federal executive body in charge of the securities market. (2) Securities of the following foreign issuers meeting the requirements of Paragraph (1) may be placed and/or publicly traded in the Russian Federation: (a) foreign entities established in countries that are members of the OECD, members or observers of the group involved in developing financial measures to combat money laundering (FATF) and/or members of the committee of experts of the Council of Europe assessing measures to combat money laundering and financing of terrorism (Manivel); (b) foreign entities established in countries, with whose appropriate bodies (appropriate entities) the federal executive body in charge of the securities market has entered into an agreement setting forth the procedure for their interaction; (c) international financial entities included on the list approved by the government of the Russian Federation; and (d) the foreign governments indicated in Subparagraphs (a) and (b) of this list, or CBs of such foreign governments. (3) The securities of foreign issuers may be placed in the Russian Federation, provided the federal executive body in charge of the securities market registers the prospectus for such securities. (4) The securities of foreign issuers meeting the requirements of Paragraphs (1) and (2), other than securities of international financial entities, may be publicly traded in the Russian Federation provided the federal executive body in charge of the securities market registers the prospectus for such securities

and the Russian stock exchange has passed a resolution allowing them to be traded. (5) The securities of international financial entities may be publicly placed and/or publicly traded in the Russian Federation if the conditions for their issuance do not contain restrictions on trading such securities among an unrestricted group of persons and/or the offer of such securities to an unrestricted group of persons.” This is a control, pursuant rule 5.

67. Saudi Arabia

- i.** This narrative appears in eq_siar, bo_siar, and mm_siar 2010-2012: *“There are no restrictions on the sale or issuance of securities abroad by residents; these transactions are subject to the local laws where the sale or issuance takes place. However, the CMA must approve, cancel, or suspend the listing of Saudi issuers’ securities traded on the Saudi Stock Exchange on stock exchanges abroad. All issuances and offerings subject to the Capital Market Law and its regulations must be conducted through a person authorized in Saudi Arabia. Only authorized persons may conduct securities business in Saudi Arabia unless exempt.”* Keeping in mind the role of the CMA, we believe that there is the possibility of controls.
- ii.** In eq_pabr 2005-2009: *“Residents may purchase or sell nonresident securities via brokerage services offered by licensed brokerage firms”* We do not consider this a control, because despite the fact that a license is required, we believe this is a mere formality.

68. Singapore

- i.** In bo_siln 2005-2012: *“There are no restrictions on sale and issue locally by nonresidents. However, nonresident financial entities must convert Singapore dollar proceeds obtained from Singapore dollar loans (exceeding S\$5 million), equity listings, or bond issuance into foreign currency before using such funds to finance activities outside Singapore.”* We do not consider that this restricts this type of transactions; hence, we do not code it as a control. Nonetheless, we do change Schindler’s original coding in 2004, because of the *“sophisticated investor”* requirement, which has the potential to be restrictive.
- ii.** In eq_siln 2000-2003 idem as above. Since we do not consider the conversion requirement into foreign currency as a control, we changed Schindler’s original coding for 2000-2003.
- iii.** In re_plbn 2005-2006: *“Effective July 19, 2005, restrictions on foreign ownership of nonlanded, noncondominium developments were removed. Foreigners may freely purchase residential units in nonlanded, noncondominium developments of less than six levels, excluding public housing.”* We coded with ones.
- iv.** In re_plbn 2007-2012: *“Foreigners may freely buy all types of residential units, except landed property and public housing.”*

Foreigners may purchase landed property only with approval from the Ministry of National Development.” We coded with ones.

69. Slovenia

- i. For eq_plbn in 2011 we decided to put a 0 because it alluded to controls that are linked to laws on inward direct investment and hence we applied the criteria that if it alluded to laws on inward FDI then it should not be considered as a control in equity.

70. South Africa

- i. For eq_siln 2006 to 2010 we did not choose to set it as a control because the word listed does not involve a control per se.
- ii. For eq_siln and bo_siln and mm_siln we put a 0 from 2006 to 2010 (included) for three reasons: (i) to be consistent with M. Schindler who had the same in 2005 and coded it as a 0; (ii) we do not think that “to be listed” is a control.
- iii. In de_plbn 1996-2011: “*Nonresidents may freely purchase derivative instruments, options, and futures on the local formal market (SAFEX), but over-the-counter transactions require prior approval.*” We coded this with ones since OTC transactions require approval.
- iv. In dii 2011-2015 (narrative changes slightly throughout the years): “*The International Headquarter Company (IHQ) rules eliminated the requirement for approval, adopted a reduction in shareholding to 10%, and streamlined reporting. IHQ shares and/or debt can be listed on the JSE Limited and directly or indirectly held by a shareholder with shares or debt listed on the JSE Limited. IHQ companies may raise and deploy capital abroad without Exchange Control approval, but must register with FinSurv for reporting purposes. Treasury outsourcing companies (TOCs) and foreign exchange brokers (FEBs) in the domestic foreign exchange market must obtain FinSurv approval in order to conduct foreign exchange business. Such business must be conducted through an AD. Listed entities on the JSE Limited may establish one subsidiary in South Africa for African and offshore operations. This subsidiary is not subject to foreign exchange restrictions. This dispensation was extended to unlisted entities, effective February 27, 2014*” There is a requirement to use authorized dealers. This is coded with ones.

71. Spain

- i. In re_pabr 1995-1998: “*Investments in real estate by residents abroad is permitted, but those that exceed Ptas 250 million require prior verification.*” We interpret the “verification” requirement as mere formality. Therefore, we coded with zeros.

- ii. In re_plbn 1995-1998: “*Real estate investments require prior verification for amounts exceeding Ptas 500 million or if investors are residents of tax haven countries*” Idem as above.
- iii. In re_plbn 2008-2012: “*Purchases of land by a foreign government are subject to controls.*” We coded with zeros.

72. Sri Lanka

- i. In ldi 2012, the following narrative appears: “*Proceeds from the sale or liquidation of approved investments, along with any associated capital appreciation, may be remitted in full through an SIA.*” This is coded with a 1, since it allows repatriation of *approved* investments.
- ii. In eq_plbn 2006-2012: “*Nonresidents may invest in shares of up to 100% of the equity capital of existing listed and unlisted public companies without prior approval, subject to certain exclusions and limitations, in terms of the general permission granted. Funds must be channeled through a SIERA.*” We consider that the “general permission” and the fact that there are certain exclusions and limitations must be considered controls.
- iii. eq_pabr, mm_pabr, ci_pabr, de_pabr, and fco in 2006-2007 are coded as 1: “*Controls apply to the purchase of securities issued by nonresidents if these assets are to form more than 20% of the cover of the technical reserves of an insurance company or are to form part of the assets representative of the technical reserves of a private pension fund*” It is considered to be a control as controls on pension funds are involved.

73. Switzerland

- i. For ci_siln, we considered the imposition of a stamp duty a control
- ii. For fco in 2011 we set it as a 0 because “*res. & nonres. are now treated mostly in the same way.*”
- iii. In de_pabr 2005-2012 “*Controls apply to the purchase of or swap operations in instruments and claims issued by or contracted with nonresidents if these assets are to form more than 20% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund.*” Although the narrative changes throughout the years, there is always some form of control for pension funds. Hence, it is considered as a control.
- iv. eq_pabr, bo_pabr, mm_pabr, ci_pabr, and fco in 2005-2008 are coded as 1: “*Controls apply to the purchase of shares or other securities of a participating nature issued by nonresidents if these assets are to form more than 25% of the cover of the technical reserves of an insurance company or of the assets representative of the liabilities of a private pension fund*” It is considered to be a control as controls on pension funds are involved. Further “*Effective January 1, 2009, the revision of the Ordinance on Occupational Benefit Plans Concerning*

Old Age, Survivors, and Disability of September 19, 2008, has abolished controls on the purchase of shares or other securities of a participating nature issued by nonresidents when these assets form more than 25% of the assets representative of the liabilities of a private pension fund” Therefore, starting from 2009, these are coded as 1.

- v. eq_siln and bo_siln in 2003 is coded as 0, as there are “no” with no narrative.

74. Tanzania

- i. An auditing requirement is not considered as a control. We think it is just a formality. Consider: *“Repatriation of capital and associated income is done through commercial banks on presentation of audited accounts indicating declared dividends, profits, or capital to be repatriated, plus authenticated documents from the Tanzania Revenue Authority confirming payment of relevant taxes on the transactions.”* The foregoing is present in ldi for 1995-2013.
- ii. In derivatives (header) 2009-2012: *“There is no derivatives market in Tanzania.”* Subcategories were coded in accordance with rule 3(ii) – see below-.
- iii. In de_plbn, de_siln and de_siar 2009: *“These transactions are not allowed.”*
In de_pabr 2009: *“These purchases are allowed only if funded fully by external sources and must be reported to the BOT for statistical purposes.”* These are considered to be controls.

75. Thailand

- i. In eq_plbn in 1996-2012: *“Nonresidents are allowed to purchase shares. However, foreign equity participation may be limited to various thresholds if a company engaged in business is subject to the provisions of the Foreign Business Act or other laws. Investment exceeding such thresholds may be made by holding nonvoting depository receipts.
Financial institutions’ foreign equity participation is limited to 25% of the total shares sold in locally incorporated banks, finance companies, and credit finance companies. The combined holdings of individuals and their family members may not exceed 5% of a bank’s total shares and 10% of those of finance companies and land banks. Foreign investors may hold more than 49% of the total shares sold in local financial institutions for up to 10 years, after which the amount of shares will be grandfathered and the nonresidents will not be allowed to purchase new shares until their percentage of shares falls to 49%. Foreign equity participation is limited to 49% for other Thai corporations. Holdings exceeding this limit are subject to BOT approval.*

For securities companies, foreign equity participation depends on the type of securities business. In brokerage businesses, foreign equity participation is allowed up to 100%. In other types of securities businesses, foreign equity participation exceeding 49% requires MOC approval.” This is considered to be a control because there is an approval requirement and there is a ceiling that applies for foreign participation.

- ii.** For dii in 2006 and 2007 we coded it as controls because of the presence of a requirement to “surrender proceeds to authorized financial institutions” which we deem as a control given that the number of authorized institutions may be small and that in the end it is a constraint for the individual who sold the asset as it may potentially face low yields in these institutions.
- iii.** For dio in 2010 and 2011 we decided to make it as controls given that they talk about quantity restrictions for FDI to affiliated or non-affiliated companies.

76. Togo

- i.** In eq_siar and mm_siar (2006-2013), the following is not considered a control: *“Residents may sell local corporate securities abroad. If these operations result in foreign control of domestic establishments, foreign investors are required to make a declaration to the MEF. The sale of securities to liquidate an investment abroad is subject to declaration to the MEF for statistical purposes. Residents may also issue securities abroad, except for those constituting a loan.”*
- ii.** In ldi: Idem as Burkina Faso and Côte d’Ivoire for: 2006-2012.
- iii.** In fci 2005-2012: *“There are no controls on these credits, but they must be reported for statistical purposes. The necessary funds must be transferred from abroad through an authorized agent. There are no controls on repayments of loans, provided the authorized agent handling the settlement is furnished with documentation attesting to the validity of the transaction.”* We consider that the requirement of having an “authorized agent” is a restriction.
- iv.** In bo_plbn and ci_plbn 2013: *“These purchases are subject to declaration to the MOF for statistical purposes. There are no controls on the sale of securities resulting from the divestiture of investment in the form of a transfer between a nonresident and a resident, but such sales are subject to the regulations governing the financial settlement of the operation.”* Since the wording is not clear that there is a control, we think that this must be taken as a no control. We coded with zeros.

77. Tunisia

- i.** In eq_plbn 2005: *“Stocks in existing companies in Tunisia may be acquired freely with foreign exchange transferred from abroad by foreign nonresidents. Effective March 14, 2005, the approval of the High Investment Commission (HIC) is no longer required for the*

acquisition by foreign nationals of shares with voting rights in these companies. Effective August 31, 2005, this formality is no longer required for the acquisition by foreign nationals of shares with voting rights in existing companies in Tunisia considered as small or medium-size enterprises operating in a sector of activity open to foreign investment at the time of establishment, in accordance with the regulation in force. Previously, the acquisition by foreign nationals of stocks with voting rights was subject to approval by the HIC, if the ratio of foreign equity participation, including the new acquisition, was equal to or exceeded 50%, irrespective of whether or not the companies were listed on the stock exchange. Approval was not required from the HIC for acquisitions of securities entailing voting rights in existing companies in Tunisia (1) between shareholders in the same company who are foreign nationals, (2) by nonresident individuals or legal entities established in Tunisia that have already been acquired without exceeding the limit of 50% or more, and (3) provided as a guarantee for management activities of foreign directors in these companies” It is not clear what controls apply after August 31, 2005.

The report in 2006 further clarifies: “Stocks in existing companies in Tunisia may be acquired freely with foreign exchange transferred from abroad by foreign nonresidents. However, the acquisition by foreigners of shares with voting rights is subject to the approval of the HIC if the foreign ownership in the capital of the companies is equal to or more than 50%, except in the case of acquisition among foreigners or acquisition of stock in small or medium-sized enterprises engaged in a sector that is open to foreign investment. The approval of the HIC is not required if the acquisition of shares with voting rights in existing companies in Tunisia is (1) effected among foreign shareholders of the same company; (2) effected by a foreign individual or legal entity, resident or nonresident, or a nonresident legal entity established in Tunisia for shares already acquired up to or more than 50%; and (3) provided as a guarantee for management activities of foreign directors in these companies” Therefore, we conclude that no significant controls were in place in 2005.

- ii.** In eq_siln 1997-2012: *“Nonresidents may sell freely shares of companies established in Tunisia. They may also transfer freely net real proceeds from the sale of shares that were purchased with foreign exchange transferred from abroad for an investment made in accordance with the legislation in force”* This was considered a control, in consideration to the header, which reads: *“There are controls in all transactions in capital and money market instruments”*
- iii.** In ci_siln 1996-2012: *“Nonresidents may transfer freely net real proceeds from sales of Tunisian mutual fund shares acquired with foreign exchange transferred from abroad”* This was considered a control, in consideration to the header, which reads: *“There are controls in all transactions in capital and money market instruments”*

- iv. In dii 2005-2012: “*Foreigners may invest freely in most economic sectors. However, the participation of foreign nationals in certain service activities not wholly exported remains subject to HIC approval if such participation exceeds 50% of the enterprise’s capital. Effective March 14, 2005, the approval of the HIC is no longer required for the acquisition by foreign nationals of securities with voting rights or shares in existing companies in Tunisia. Effective August 31, 2005, this formality is no longer required for the acquisition by foreign nationals of shares with voting rights in existing companies in Tunisia considered as small or medium-size enterprises operating in a sector of activity open to foreign investment at the time of establishment, in accordance with the regulation in force. Previously, HIC approval was required for the acquisition by foreign nationals of securities with voting rights and corporate shares if the ratio of foreign equity participation, including the new acquisition, equaled or exceeded 50%, irrespective of whether or not the companies were listed on the stock exchange. Approval was not required from the HIC for acquisitions of securities with voting rights or shares in existing companies in Tunisia (1) between shareholders or partners in the same company who are foreign nationals; (2) by foreign nationals or legal entities or nonresident legal entities established in Tunisia, for securities and corporate shares that have already been acquired without exceeding the limit of 50% or more; and (3) provided as a guarantee for management activities of foreign directors in these companies.*” This is considered as a control, in virtue of the second sentence of rule 7(i). That is, it is clear that nonresidents are not allowed to invest in some sectors.

78. Turkey

- i. For mm_siar since 2007 we followed the rule that authorization is a control, but reporting or registration are not. However for Turkey's case we take "subject to regulation" as a control.
- ii. For mm_pabr in 2011 we coded it as a 0 despite the fact that the word prudential was used, because it applied only to insurance companies.
- iii. For 2006 in dio we set it as 1 because the restrictions were only abolished until December 2006.
- iv. In dii 2005-2012: “*Controls apply to investment in (1) the mining sector, except through a company to be established in Turkey; (2) exploration and exploitation of petroleum by enterprises controlled or owned by foreign states, unless an authorization is granted; (3) refining, transportation through pipelines, and storage of petroleum, unless an authorization is granted; (4) maritime transport, air transport and ground handling services, radio and television broadcasting, and marina operations, where foreign ownership is limited; (5) education, because foreigners are not allowed to set up schools unless all students are foreigners; (6) banks and other*

financial institutions where authorization is required; (7) all sectors, if the value of the investment is less than \$50,000; and (8) the accounting sector” Although the sectors alluded in the foregoing narrative change in some years, in all of them, there is a potential macroeconomic impact. For this reason, pursuant rule 7(ii), we set it as a control.

- v. In bo_pabr and bo_siar 2005-2007, we apply the exception set forth in rule 3 (iii).
- vi. In ci_siln 2006: *“The sale or issue of these instruments is subject to CMB registration”* Pursuant rule 14, this is not a control.
- vii. In eq_siar 2007-2013: *“The sale, issuance, and public offering of capital market instruments abroad by resident legal entities, except public institutions and establishments, are not restricted, provided such instruments are registered with the CMB, pursuant to the capital market legislation. The Capital Market Law regulates the registration of capital market instruments”* This is not a control, because we consider that the restriction to public institutions has not the potential to bear a significant macro impact in this type of transactions.
- viii. In bo_siar 2008-2013: *“The sale, issuance, and public offering of capital market instruments abroad by resident legal entities, except public institutions and establishments, are not restricted, provided such instruments are registered with the CMB, pursuant to the capital market legislation. The Capital Market Law regulates the registration of capital market instruments. In addition to the regulations governing shares or other securities of a participating nature, issuers are required to register their bonds and other debenture instruments to be offered abroad with the CMB. However, these issuers are exempt from preparing prospectuses and circulars”* Idem as above.
- ix. In de_plbn 2013-2015: *“Purchases of derivatives and other instruments by nonresidents are free of restrictions. However, securities transactions must be carried out through banks and intermediary institutions authorized under the capital markets legislation, and all related transfers must be carried out through banks (including participation banks)”* This is coded with ones, as there is a requirement to use authorized intermediaries.

79. Uganda

- i. In re_plbn 1995-1997: *“With the exception of agricultural land, nonresidents can purchase local real estate.”* We coded with ones, since this might be important.

80. Ukraine

- i. In bo_plbn 2001-2012: *“Purchases must be registered. Bond transactions with nonresidents may be carried out on a contractual basis only by resident authorized banks that have executed the appropriate agreements with the NBU. Authorized banks acquire*

bonds on instructions of nonresidents at auctions conducted by the NBU.” Although the narrative changes throughout the years, I believe that the essential part remains unchanged i.e. “Authorized banks acquire bonds on instructions of nonresidents at auctions conducted by the NBU.” We think that this auction although is not a control per se it has the potential to become an important restriction as it is conducted by a State-controlled institution.

- ii. In re_plbn 2001-2012: *“These transactions are considered domestic capital investments by nonresidents and must be registered as direct investments.”* We coded with zeros, considering that investments are deemed to be domestic.
- iii. In re_slbn 2010: *“Effective March 22, 2011, the mandatory deposit of hryvnia funds from foreign investments in Ukraine for five days in an analytical account of an authorized bank before conversion into foreign currency and transfer abroad was lifted. This requirement, which was in effect since March 15, 2010, did not affect purchases of foreign currency from transactions by foreign investors involving securities from the first tier of listings on the Ukrainian stock exchanges, except for the transactions involving purchase and sale of these securities performed outside of the stock exchanges. The transfer of proceeds, after payment of taxes due, is not restricted.”* We do not see any relation of this narrative with real estate transactions. For this reason, we coded with a 1.

81. United Arab Emirates

- i. In eq_plbn 1995-2009 and 2013: *“At least 51% of the shares of U.A.E. corporations must be held by U.A.E. nationals or organizations. Companies domiciled in free zones are exempt from this requirement and may be up to 100% foreign-owned.”* Pursuant rule 6, this is a control.

82. United States

- i. The observation in mm_siln 2012 was coded as a 1, despite the fact that the narrative only made allusion to a registration obligation, because in 2011 there was a clear restriction in virtue of the Investment Company Act, which is still alluded in other categories of 2012.
- ii. In mm_siln 2008-2010, 2012: *“Offers and sales of securities in the United States, whether by U.S. residents or by nonresidents, must be registered under the Securities Act of 1933 or subject to a valid exemption from registration pursuant to the Securities Act”* Pursuant rule 14, this is not a control. However in 2011 this sentence preceded the foregoing narrative: *“Public offers made in the United States or to U.S. residents by foreign investment companies are prohibited under the Investment Company Act, unless authorization from the SEC is obtained and the offer is registered with the SEC”*. The Investment Company Act is alluded in other categories of 2008-2010, 2012. We

take the stand that this legislation is in force despite the absence of reference in these years.

- iii. In re_plbn 1995-2012: “*Ownership of agricultural land by foreign nationals or by corporations in which foreign owners have an interest of at least 10% or substantial control must be reported to the Department of Agriculture. Certain states in the United States impose various restrictions on foreign nationals' purchases of land within their borders.*” We coded with ones, in considerations of the last sentence of this narrative, that is, there is the possibility of a State-level restriction.

83. Uruguay

- i. In 2012, a restriction was introduced in mm_plbn “*Effective October 1, 2012, the CBU imposes a 40% reserve requirement on the average daily (weekends and holidays included) securities holdings (for the penultimate calendar month) in excess of the August 16, 2012, balance. The requirement applies both to peso- and indexed-unit-denominated CB securities of financial institutions with a position in CBU securities and held for and on behalf of nonresidents (Circular No. 2120). Funds under these regulations must be in fixed-term deposits (in pesos or indexed units, depending on the denomination of the security) at the CBU that do not earn interest. Effective August 1, 2013, the reserve requirement was increased to 50% from 40% for institutions holding a position in CB securities denominated in local currency or inflation index units on behalf of nonresidents. Effective August 1, 2013, a reserve requirement of 50% was introduced for institutions holding a position in government securities denominated in local currency or inflation index units on behalf of nonresidents.*” Despite that this regulation was effective in October, we think that the coding for 2012 must reflect this change.
- ii. In derivatives (header) 1995-1997: “*There are no derivative operations on the securities market, not even for commodities. As they do not exist, they are not regulated.*” Subcategories were coded pursuant rule 3(i).
Note that in 1998-2010, the report only shows “*n.r.*” (not regulated). In 2011, it is replaced by: “*There are no restrictions on derivative transactions*”.

84. Uzbekistan

- i. For dio in 2006 and 2007 we continue to set it to 0 as it only alluded to notifications. This however changes to 1 in 2008 as they start requiring authorization.
- ii. For dii in 2010 and 2011 we continue to code as 1 as it continues to allude to minimum requirements.
- iii. In de_plbn 2007-2009: “*Nonresidents may purchase for foreign currency any securities permitted for circulation in Uzbekistan, unless*

their terms of issue prohibit nonresidents from holding these securities.” We interpret this information to be a control.

- iv. In re_pabr 2011-2012: *“Foreign exchange transactions related to the purchase by resident individuals and legal entities of buildings, structures, and other real estate abroad are registered with the CBU. Foreign exchange transactions involving the movement of capital to purchase or build real property outside Uzbekistan for the needs of diplomatic and other representative offices are under the authority of the Cabinet of Ministers.”* We coded with zeros, since there are controls only to real estate with diplomatic and representation purposes.

85. Venezuela

- i. In 2012, the “n.r” in fco was coded as a 0, in order to maintain consistency with previous years that had the same case.
- ii. In dii 1995-2012: *“Mass media, communications, newspapers in Spanish, and professional services are reserved for national ownership. New investments do not require prior authorization from the SIEX, but must be registered with the SIEX, and approval is automatically granted if the new investment is consistent with national legislation. Foreign enterprises may establish subsidiaries in the República Bolivariana de Venezuela without prior authorization as long as they are consistent with the commercial code. The SIEX must, however, be notified within 60 working days about newly established subsidiaries. Investment in the petroleum and iron sectors is subject to specific regulations.”* Pursuant rule 9, the last sentence of the foregoing narrative is a control.
- iii. In derivatives (header) 1997-2004: *“There are, however, some regulations for market participants.”* Given the vagueness of this information, we coded pursuant rule 3(i).

86. Vietnam

- i. In mm_pabr 2011-2012: *“Insurance companies, pension funds, investment firms, and collective investment funds are not permitted to invest in securities issued by nonresidents.”* This is considered to be a control since there are restriction on pension funds and other sectors bearing macro impacts.
- ii. In cco 1996: *“No specific regulations exist.”* Similar to the decision we took on derivatives, I coded in accordance with rule 3(i).

87. Yemen

- i. In dii 2009-2012: *“FDI is regulated by the Investment Law (IL). Application, registration, and approval to set up a project are all handled by the General Investment Authority. The IL allows all types of FDI, except exploration and extraction of oil and banking and*

exchange bureau activities, which are covered by other laws. The IL also does not apply to import, wholesale, and retail trade.” The General Investment Authority must *approve* FDI. Hence, we think that this must reflect a control.

- ii. In ldi 1996-2012: “*Liquidation of direct investment is free of restrictions for approved and registered projects.*” Although we think that this information is unclear on whether there is an approval requirement, we take the stand that this is not a control, keeping in mind that neither dii nor dio have controls.

VI. DESCRIPTIVE STATISTICS

In this section, descriptive statistics related to observations coded as either *n.a* (not available) or *n.r* (not regulated) are shown⁴. We examine this sort of observations in four dimensions: First, we depict how many observations are present in each country and we compute their relative weight therein; second, we make a similar exercise by years; third, we calculate the share of *n.a*'s and *n.r*'s in each asset category; and fourth, we display the aggregates.

1. Description by country

	Number of <i>n.a</i> 's and <i>n.r</i> 's by country	Share of <i>n.a</i> 's and <i>n.r</i> 's by country
Algeria	206	35.76%
Angola	78	13.54%
Argentina	0	0.00%
Australia	2	0.35%
Austria	0	0.00%
Bahrain	0	0.00%
	Number of <i>n.a</i> 's and <i>n.r</i> 's by country	Share of <i>n.a</i> 's and <i>n.r</i> 's by country
Bangladesh	4	0.69%
Belgium	0	0.00%
Bolivia	9	1.56%
Brazil	16	2.78%
Brunei Darussalam	14	2.43%
Bulgaria	9	1.56%
Burkina Faso	4	0.69%
Canada	0	0.00%
Chile	0	0.00%
China	5	0.87%
Colombia	38	6.60%
Costa Rica	3	0.52%
Côte d'Ivoire	18	3.13%
Cyprus	8	1.39%
Czech Republic	0	0.00%

⁴ See section III for details.

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Denmark	4	0.69%
Dominican Republic	0	0.00%
Ecuador	4	0.69%
Egypt	12	2.08%
El Salvador	7	1.22%
Ethiopia	119	20.66%
Finland	0	0.00%
France	0	0.00%
Georgia	12	2.08%
Germany	0	0.00%
Ghana	2	0.35%
Greece	0	0.00%
Guatemala	2	0.35%
Hong Kong	0	0.00%
Hungary	4	0.69%
Iceland	0	0.00%
India	1	0.17%
Indonesia	0	0.00%
Iran	177	30.73%
Ireland	0	0.00%
Israel	0	0.00%
Italy	0	0.00%
Jamaica	48	8.33%
Japan	0	0.00%
Kazakhstan	0	0.00%
Kenya	0	0.00%
Korea	0	0.00%
Kuwait	0	0.00%
Kyrgyz Republic	66	11.46%
	Number of <i>n.a</i> 's and <i>n.r</i> 's	Share of <i>n.a</i> 's and <i>n.r</i> 's by
	by country	country
Latvia	0	0.00%
Lebanon	11	1.91%
Malaysia	0	0.00%
Malta	4	0.69%
Mauritius	0	0.00%
Mexico	1	0.17%
Moldova	9	1.56%
Morocco	6	1.04%
Myanmar	271	47.05%
Netherlands	0	0.00%
New Zealand	0	0.00%
Nicaragua	0	0.00%
Nigeria	19	3.30%
Norway	0	0.00%
Oman	0	0.00%

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Pakistan	1	0.17%
Panama	0	0.00%
Paraguay	21	3.65%
Peru	0	0.00%
Philippines	0	0.00%
Poland	6	1.04%
Portugal	0	0.00%
Qatar	0	0.00%
Romania	10	1.74%
Russia	8	1.39%
Saudi Arabia	2	0.35%
Singapore	13	2.26%
Slovenia	1	0.17%
South Africa	0	0.00%
Spain	0	0.00%
Sri Lanka	9	1.56%
Swaziland	2	0.35%
Sweden	0	0.00%
Switzerland	0	0.00%
Tanzania	0	0.00%
Thailand	0	0.00%
Togo	30	5.21%
Tunisia	8	1.39%
Turkey	0	0.00%
Uganda	0	0.00%
Ukraine	29	5.03%
United Arab Emirates	1	0.17%
United Kingdom	0	0.00%
United States	0	0.00%
	Number of <i>n.a</i> 's and <i>n.r</i> 's	Share of <i>n.a</i> 's and <i>n.r</i> 's by
	by country	country
Uruguay	52	9.03%
Uzbekistan	49	8.51%
Venezuela	5	0.87%
Vietnam	114	19.79%
Yemen, Republic of	6	1.04%
Zambia	0	0.00%

Summary Statistics

Mean	15.6	2.71%
Standard Deviation	41.943926	7.28%
Minimum	0	0.00%
Maximum	271	47.05%
Total		1560

2. Description by years

	Number of <i>n.a</i> 's and <i>n.r</i> 's by year	Share of <i>n.a</i> 's and <i>n.r</i> 's by year
1995	277	8.66%
1996	155	4.84%
1997	116	3.63%
1998	104	3.25%
1999	96	3.00%
2000	93	2.91%
2001	95	2.97%
2002	96	3.00%
2003	84	2.63%
2004	83	2.59%
2005	79	2.47%
2006	70	2.19%
2007	64	2.00%
2008	43	1.34%
2009	37	1.16%
2010	26	0.81%
2011	26	0.81%
2012	28	0.88%

3. Description by categories

Share of *n.a*'s and *n.r*'s by category (as a % of total observations per category)

eq	bo	mm	ci	de	re	di	fc	cc	gs
1.22%	1.06%	1.89%	2.76%	9.07%	3.48%	0.87%	0.64%	1.31%	2.42%

4. Aggregate

Number of <i>n.a</i> 's and <i>n.r</i> 's in dataset	
Number of <i>n.a</i>'s	1145
Number of <i>n.r</i>'s	415
Total	1560