

## 2019 EM index eligibility insights

Updated IIC, IPR thresholds and ratings to watch

This publication provides the latest quantitative thresholds for EM index eligibility, as well as some of the key themes which may influence the risk and return profile of the J.P. Morgan Emerging Markets Bond indices.

### EM Index eligibility thresholds

**2019 Index Income Ceiling (IIC):** The J.P. Morgan IIC for 2019 is **\$18,821**, a marginal increase from last year's level of \$18,761.

**2019 Index PPP Ratio (IPR):** The J.P. Morgan Index Purchasing-Power-Parity Ratio (IPR) EM threshold for 2019 is **60.6**, a modest increase over the 2018 IPR level (59.5).

**No changes in Index composition:** There are no changes in the EM sovereign index universe based on the updated IIC and IPR thresholds.

**Greece's** latest GNI per capita (\$18,090) has come in below the IIC level for the first time. For a sovereign to be eligible for JP Morgan EM Indices under the IIC criterion, the country's GNI per capita must remain below the IIC for three consecutive years. Hence, the country's debt remains currently ineligible for the EM sovereign index.

### Ratings to watch: EM Sovereigns

**South Africa (Baa3/BB/BB+):** A ratings downgrade by Moody's (Baa3) of ZAR denominated gov't bonds (SAGBs) would likely trigger exclusion from the FTSE World Government Bond Index (WGBI), which could trigger approximately \$11 billion in forced selling related to rebalancing flows, if investors are positioned on an index-neutral basis. The country's debt is already excluded from the IG tranches of the EMBI and GBI-EM index families and the Global AGG.

**Romania (Baa3/BBB-/BBB-):** A ratings downgrade to high yield by any one of the three rating agencies would result in Romania being excluded from the GBI-EM Global Diversified IG 15% Cap index. This could potentially trigger approx. \$390 million in potential loss of demand from the local currency government bond market, assuming investors maintain same weights as the benchmark. A downgrade to high yield by two rating agencies will result in Romania's exclusion from the IG variant of EMBI Global Diversified and the Bloomberg Barclays Global Aggregate (Global AGG), potentially resulting in benchmarked managers offloading \$2.4 billion in Romania's hard currency sovereign debt, if they were to align themselves to the benchmark.

### Ratings to watch: EM Quasi-sovereigns

**PEMEX (Baa3/BBB+(Neg)/BBB-(Neg)):** A ratings downgrade to high yield by Moody's and Fitch would result in PEMEX being excluded from the IG variant of the JPM EMBI Global Diversified, Bloomberg Barclays US Aggregate (US AGG) and Global AGG. This could potentially trigger approximately \$11 billion of forced selling in PEMEX's hard currency instruments, if investors mimicked the benchmark.

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Figure 1: 2019 IIC and IPR thresholds

EM Threshold	2019	2018	2017
IIC (in \$)	18,821	18,761	19,244
IPR	61	60	61

Source: J.P. Morgan.

See page 10 for analyst certification and important disclosures.

## Index Income Ceiling (IIC)

The latest J.P. Morgan Index Income Ceiling (IIC) is \$18,821 for 2019 (based on 2017 GNI per capita figures), up slightly from last year's level (\$18,761). This marks a return to growth (+0.3%) after two consecutive years of decline (a total of -5.5%) for the IIC. The eligible EM Index universe remains unchanged with respect to eligibility via the IIC criterion.

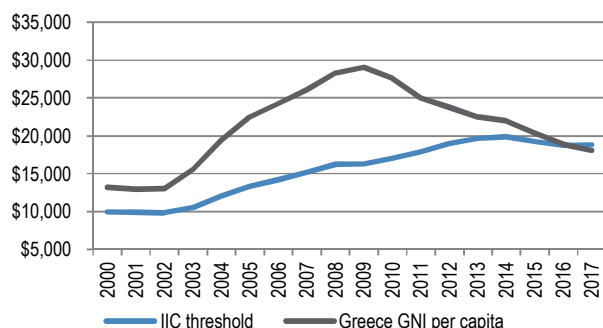
Figure 2: Countries ranking close to the IIC

(as of January 2019)	2015	2016	2017
Aruba	\$23,780	\$23,560	\$23,660
Slovenia	\$22,240	\$21,700	\$22,000
Bahrain	\$22,660	\$21,330	\$21,150
Saudi Arabia	\$23,900	\$21,730	\$20,090
Portugal	\$20,440	\$19,850	\$19,820
<b>IIC Level</b>	<b>\$19,244</b>	<b>\$18,761</b>	<b>\$18,821</b>
Estonia	\$18,380	\$17,830	\$18,190
Czech Republic	\$18,250	\$17,630	\$18,160
<b>Greece</b>	<b>\$20,360</b>	<b>\$18,870</b>	<b>\$18,090</b>
Slovak Republic	\$17,580	\$17,010	\$16,610
Trinidad and Tobago	\$18,840	\$16,760	\$15,340

Source: J.P. Morgan.

**Greece's GNI per capita (\$18,090) has fallen below the IIC level.** This marks the first time the country's GNI per capita has fallen below the IIC threshold, since we have been tracking the data i.e. 1987. Nevertheless, the country remains classified as DM. A country's GNI per capita needs to be below the IIC for three consecutive years in order to be considered eligible for the JPM EM Sovereign Index universe. Greece is currently not in any of JPM fixed income indices.

Figure 3: Greece GNI per capita has dipped below the IIC threshold level



Source: J.P. Morgan.

## Index PPP Ratio (IPR)

For 2019, the J.P. Morgan Index PPP Ratio (IPR) EM threshold has climbed to 60.6, after dropping to 59.5 in 2018. The 2019 EM IPR threshold is calculated based on the one-year-lagged (i.e. 2017) GDP data. This is similar to our existing Index Income Ceiling (IIC) calculation which is also based on one-year-lagged GNI per capita.

Figure 4: Countries ranking close to the EM IPR threshold

(as of January 2019)	Index PPP Ratio (IPR)*		
	2017	2018	2019
Jamaica	57.2	55.2	56.7
Central African Republic	52.5	55.1	57.1
Czech Republic	54.7	55.1	57.4
Belize	57.1	58.1	57.6
Panama	59.4	59.6	59.4
<b>EM IPR Threshold</b>	<b>61.3</b>	<b>59.5</b>	<b>60.6</b>
Chile	57.1	57.2	61.3
Singapore	62.9	61.9	61.3
Lebanon	60.2	60.3	61.4
Eritrea	52.1	57.0	61.8
Estonia	59.8	59.9	62.4

Source: J.P. Morgan.\* 2019 IPR based on GDP data for 2017; similarly 2018 IPR is based on GDP data for 2016, and so on

**Notable IPR movements:** Among countries present in the JPM EM Sovereign suite of indices, Angola, Brazil and Chile have seen their 2019 IPR rise above the EM threshold after being below the EM threshold on the 2 prior years. Having said that, these countries will remain eligible for the EM indices, at least for the next three years, since the GNI per capita for each of these remain below the IIC level (Figure 5).

Figure 5: EM countries crossing the IPR EM threshold in 2019

	Index PPP Ratio (IPR)*			GNI per capita (\$)		
	2017	2018	2019	2015	2016	2017
<b>EM Threshold</b>	<b>61.3</b>	<b>59.5</b>	<b>60.6</b>	<b>19,244</b>	<b>18,761</b>	<b>18,821</b>
Angola	58.7	51.9	65.3	4,520	3,770	3,570
Brazil	55.7	56.8	63.3	10,090	8,850	8,600
Chile	57.1	57.2	61.3	14,310	13,590	13,610

Source: J.P. Morgan.\* 2019 IPR based on GDP data for 2017; similarly 2018 IPR is based on GDP data for 2016, and so on.

Please see the Appendix for further explanation on IIC and IPR values for a broader list of countries.

## EM ratings on our radar

**South Africa (Baa3/BB/BB+):** South Africa is already classified as high yield in the EMBI Global Diversified and been excluded from the Global AGG. This is because both J.P. Morgan and Bloomberg adopt a middle-of-the-three ratings approach to decide on an issuer's rating. However, South Africa is still present in the WGBI. This is due to FTSE using the higher of the ratings assigned by S&P and Moody's to the issuer. A **Moody's downgrade to high yield could result in potential outflows of approx. \$11 billion from the South African local government bond market**, on an index-neutral basis (assuming \$2.5 trillion managed to the WGBI).

Figure 6: South Africa sovereign debt ratings - 2016-2018

	Moody's		S&P		Fitch	
	Rating	Watch	Rating	Watch	Rating	Watch
31-Dec-15	Baa2		BBB-		BBB-	
08-Mar-16	Baa2	Neg	BBB-		BBB-	
06-May-16	Baa2		BBB-		BBB-	
03-Apr-17	Baa2	Neg	BB+		BBB-	
07-Apr-17	Baa2	Neg	BB+		BB+	
09-Jun-17	Baa3		BB+		BB+	
24-Nov-17	Baa3	Neg	BB		BB+	
23-Mar-18	Baa3		BB		BB+	

Source: Bloomberg.

**PEMEX (Baa3/BBB+(Neg)/BBB-(Neg)):** If PEMEX is downgraded to high yield by two rating agencies, the issuer would be excluded from the IG variant of the EMBI Global Diversified, Global AGG and US AGG. This is because all three indices use 'middle of the three ratings' criteria to determine an instrument's rating. Such exclusion could potentially trigger \$11 billion in outflows from PEMEX's hard currency denominated bonds, if investors followed the benchmark action.

Figure 7: PEMEX issuer debt ratings - 2016-2018

	Moody's		S&P		Fitch	
	Rating	Watch	Rating	Outlook	Rating	Outlook
31-Dec-15	Baa1		BBB+		BBB+	
21-Jan-16	Baa1	Neg	BBB+		BBB+	
31-Mar-16	Baa3		BBB+		BBB+	
29-Jan-19	Baa3		BBB+		BBB-	Neg
04-Mar-19	Baa3		BBB+	Neg	BBB-	Neg
Current	Baa3		BBB+	Neg	BBB-	Neg

Source: Bloomberg.

**Romania (Baa3/BBB-/BBB-):** Romania would be excluded from the GBI-EM Global Diversified IG 15% Cap index after the first downgrade to high yield of the local currency credit rating. The index uses the lowest rating from the three rating agencies to determine an issuer's rating. This could potentially trigger approx.

\$390 million in reduced sponsorship in the local currency government bond market if benchmarked investors replicated the index action. Foreign currency credit rating **downgrade to high yield by two rating agencies would result in exclusion from the IG variant of EMBI Global Diversified and the Global AGG.** This could potentially result in \$2.4 billion in outflows from Romania's hard currency sovereign debt (USD and EUR denominated), if investors mimicked the benchmark.

Figure 8: Romania sovereign debt ratings - 2011-2018

	Moody's		S&P		Fitch	
	Rating	Watch	Rating	Watch	Rating	Watch
31-Dec-10	Baa3		BB+		BB+	
04-Jul-11	Baa3		BB+		BBB-	
16-May-14	Baa3		BBB-		BBB-	
Current	Baa3		BBB-		BBB-	

Source: Bloomberg.

**Kazakhstan (Baa3/BBB-/BBB-):** Foreign currency credit rating **downgrade, to high yield, by two of the three rating agencies would lead to Kazakhstan's sovereign debt being excluded from the IG variant of EMBI Global Diversified and the Global AGG.** This could trigger \$1.5 billion in potential outflows from the country's hard currency sovereign debt.

Figure 9: Kazakhstan sovereign debt ratings - 2016-2018

	Moody's		S&P		Fitch	
	Rating	Watch	Rating	Watch	Rating	Watch
31-Dec-15	Baa2		BBB		BBB+	
17-Feb-16	Baa2		BBB-		BBB+	
04-Mar-16	Baa2	Neg	BBB-		BBB+	
22-Apr-16	Baa3		BBB-		BBB+	
29-Apr-16	Baa3		BBB-		BBB	
Current	Baa3		BBB-		BBB	

Source: Bloomberg.

## AUM and cash flow trends

**Total assets under management (AUM) benchmarked against J.P. Morgan EM index suite is approximately \$810 billion by May 2019.** This represents \$14 billion increase over the AUM as of May 2018. The bulk of this increase can be attributed to the increase in assets tracking the CEMBI index suite (+\$13 billion), which was aided by the fact that it was the best performing EM asset class in 2018. The AUM benchmarked against the CEMBI index suite has surpassed \$100 billion during 2018, currently standing at \$110 billion as of May 2019.

Figure 10: AUM benchmarked against JPM's EM Index suite

(in US\$ billions)	Jan '13	Jan '14	Jan '15	Jan '16	Jan '17	Jan '18	Jan '19	May '19
Local Market	200	200	215	200	207	230	226	225
o/w GBI-EM Global Div	179	179	189	179	187	210	203	202
External Sovs USD	300	300	299	295	319	365	362	374
o/w EMBI Global Div	233	233	243	241	266	307	302	311
External Corp USD	51	51	73	78	81	95	105	110
o/w CEMBI Broad Div	31	31	50	53	54	63	72	78
ELMI+	27	27	22	19	21	28	25	25
JACI	-	-	-	-	-	60	75	75
<b>Total AUM</b>	<b>577</b>	<b>577</b>	<b>612</b>	<b>595</b>	<b>631</b>	<b>778</b>	<b>788</b>	<b>809</b>

Source: J.P. Morgan.

## EMBIG and CEMBI Broad Cash Flows

A combined total of \$50 billion of cash flow is expected for the next six months (April-Sept.) for the EMBIG and CEMBI Broad indices. This is a 6% increase over the same period in 2018. The cash flow estimated is based only on the expected coupons and amortization of instruments within the index, excluding any defaulted issuers. On an AUM-weighted basis, this would account for \$13 billion in cash flows for EMBI and CEMBI benchmarked investors. As per the cyclical nature of cash flow, the peak months typically tend to be January, March, July and September.

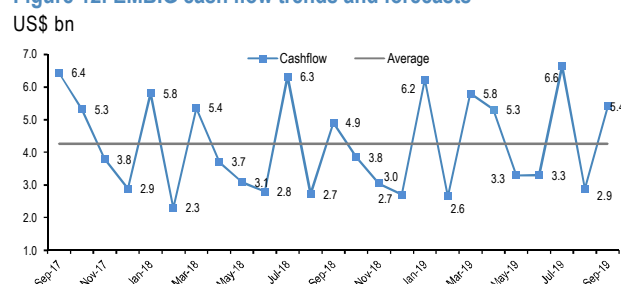
**EMBIG cashflows** contribute more than half, or \$26 billion (\$10.4bn on an AUM-weighted basis), of the total forecasted cashflows for the next six months. This estimate is \$3.3 billion greater than the same period in 2018, primarily driven by the inclusion of the new GCC countries (Bahrain, Kuwait, Qatar, Saudi Arabia, and UAE) which contribute \$2.6 billion to the estimated cash flow. The top 10 countries by cash flow account for 53% of the cumulative estimated cash flow. At the issuer level, the top five issuers, TURKEY, PEMEX, ARGENT, INDON, and MEX, account for \$6.8 billion in payout from April-September 2018. The dedicated EMBIG manager cash flow for the period is estimated to be \$10.4 billion, excluding any defaulted names.

Figure 11: Expected Cash flow for top 10 Countries and Issuers in EMBIG (Apr-Sept)

Country	Cashflow (\$bn)	Issuer	Cashflow (\$bn)
Mexico	2.87	TURKEY	1.57
Indonesia	1.97	PEMEX	1.54
Turkey	1.77	ARGENT	1.53
China	1.55	INDON	1.07
Argentina	1.53	MEX	1.06
Russia	1.21	KSA	1.04
Saudi Arabia	1.04	RUSSIA	0.96
Brazil	0.95	BRAZIL	0.83
Ukraine	0.73	ECUA	0.70
Ecuador	0.70	PHILIP	0.65
<b>Total</b>	<b>14.32</b>		<b>10.95</b>
<b>% of Total</b>	<b>53%</b>		<b>41%</b>

Source: J.P. Morgan.

Figure 12: EMBIG cash flow trends and forecasts



Source: J.P. Morgan.

**CEMBI Broad** cash flow for the next six months (Apr. – Sept.) are estimated to be a total of \$24 billion (\$2.7bn on an AUM-weighted basis), which is 2% less than the same period in 2018. Of the total, the top 10 countries account for \$17.8 billion, or 75%, of the expected CEMBI cash flows. Brazil and China are the two largest countries which will contribute a total of \$9 billion to the expected cash flows. At the issuer level, Petrobras has the highest expected cash flow in the next six months of \$1.1 billion. Financials (\$7.0bn), Oil & Gas (\$3.9bn), and Real Estate (\$2.5 billion) are expected to have the greatest cash flows within the sectors. The dedicated CEMBI manager cash flow for the period is estimated to be \$2.7 billion.

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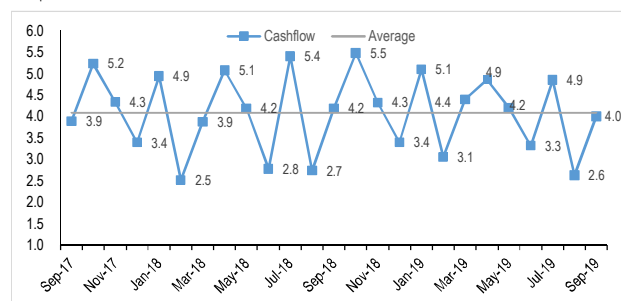
Figure 13: Expected Cash flow for top-10 countries, sectors and issuers in CEMBI Broad (Apr-Sept '19)

Country	Cashflow (\$bn)	Sector	Cashflow (\$bn)	Issuer	Cashflow (\$bn)
China	5.19	Financial	6.97	PETBRA	1.08
Brazil	3.84	Oil & Gas	3.86	BANBRA	0.42
Russia	1.65	Real Estate	2.52	CNOOC	0.40
Mexico	1.59	TMT	2.43	EVERRE	0.30
Hong Kong	1.36	Utilities	1.94	HRAM	0.29
India	1.05	Metals & Mining	1.72	ITAU	0.28
UAE	0.91	Consumer	1.67	GAZPRU	0.26
Turkey	0.85	Industrial	1.13	VALEBZ	0.25
Colombia	0.70	Infrastructure	0.54	ICBCAS	0.23
South Korea	0.68	Diversified	0.51	YPFDAR	0.23
<b>Total</b>	<b>17.82</b>		<b>23.30</b>		<b>3.73</b>
<b>% of Total</b>	<b>75%</b>		<b>98%</b>		<b>16%</b>

Source: J.P. Morgan.

Figure 14: CEMBI Broad cash flow trends and forecasts

US\$ bn



Source: J. P. Morgan



## Major launches from 2018

### J.P. Morgan ESG index suite

The J.P. Morgan ESG suite of indices (JESG), a **global fixed income index family which integrates environmental, social, and governance factors** in a composite benchmark

**EM ESG index suite:** The initial JESG is available for the leading J.P. Morgan Emerging Markets suite of indices (EMBI Global Diversified, GBI-EM Global Diversified and CEMBI Broad Diversified) and is the first of its kind in emerging markets fixed income. The baseline for JESG indices offers the benefit of familiarity for benchmarked investors looking to gradually incorporate ESG and responsible investing in their overall investment strategies.

**ESG approach:** The JESG applies a multidimensional approach to ESG investing for fixed income investors. It incorporates ESG score integration, positive screening (e.g. green bonds) as well as exclusions of controversial sectors and UN Global Compact violators.

[\(Link to publication\)](#)

### J.P. Morgan EM Blend index suite

J.P. Morgan Emerging Markets Blended (JEMB) suite of indices is an **aggregate EM fixed income benchmark suite that blends US dollar and local currency denominated sovereign, quasi-sovereign and corporate bonds**.

**Available in 4 standard variants:** The JEMB product suite comprises 4 blended indices leveraging the flagship J.P. Morgan EM Bond indices, namely the EMBI Global Diversified (EMBIGD), GBI-EM Global Diversified (GBI-EM GD) and the CEMBI Broad Diversified (CEMBI BD). Rules and methodology for each tranche are adopted from the underlying foundational index (e.g. Hard currency sovereign tranche will use the EMBIGD, etc.).

- **JEMB Equal Weighted ( $\frac{1}{3}$  GBI-EM GD,  $\frac{1}{3}$  EMBIGD,  $\frac{1}{3}$  CEMBI BD):** Blends US dollar and local currency denominated sovereign, quasi-sovereign and corporate bonds in equal proportion.
- **JEMB Hard Currency / Local currency 50-50 ( $\frac{1}{4}$  EMBIGD,  $\frac{1}{4}$  CEMBI BD,  $\frac{1}{2}$  GBI-EM GD):** Includes  $\frac{1}{4}$  each of EMBIGD (US dollar sovereign, quasi-sovereign) and CEMBI BD (US dollar corps),

combined with GBI-EM GD (local currency denominated sovereign bonds) that makes up the remaining 50% of the allocation.

- **JEMB Sovereign-only 50-50 ( $\frac{1}{2}$  EMBIGD,  $\frac{1}{2}$  GBI-EM GD):** A sovereign-focused benchmark with an equal allocation between US dollar and local currency denominated sovereign and quasi-sovereign bonds.
- **JEMB Hard Currency Credit 50-50 ( $\frac{1}{2}$  EMBIGD,  $\frac{1}{2}$  CEMBI BD):** US dollar only benchmark with 50% sovereign / quasi-sovereign bonds and 50% corporate bonds

[\(Link to publication\)](#)

### Global Aggregate Bond Index (GABI)

The **J.P. Morgan Global Aggregate Bond Index (GABI)** is a **global fixed income index**, which uniquely captures government, government-related, credit and securitized asset classes, across Developed and Emerging Markets over the entire credit spectrum into one integrated benchmark. It does not compromise investment-grade credit quality and utilizes transparent third-party valuations and rigorous quality controls across all instruments to provide a liquid, transparent universal benchmark.

**Broad benchmark:** The benchmark tracks over 22,000 fixed income securities represented by 3,000+ issuers across 122 countries and 31 different currencies with a combined market capitalization of US\$44.5 trillion.

**Some of the unique features of the GABI include:** (1) enhanced granularity in securitized debt with independent cusip-level pricing models; (2) increased exposure to alternative assets such as HY credit and CLOs; and (3) expanded coverage of Emerging Markets.

Geared toward **ratings-sensitive investors**, the GABI IG and the GABI US IG are investment grade (IG-only) and available for benchmark attribution.

[\(Link to publication\)](#)

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## 2019 launches so far

### JESG Global HY Corporate Index

**Comprehensive global high yield baseline index:** The baseline index of the JESG Global High Yield Corporate Index (JESG GHYCI) covers 80% of the \$2.5 trillion debt stock across developed market and emerging market high yield issuers, including USD, EUR and GBP currencies. As of January 31, 2019, the baseline index tracked approximately 3,100 high yield securities representing approximately 1,500 issuers across 73 countries with an aggregate market size of US\$2.0 trillion.

**ESG Scores, ethical screening and green bonds used to tilt index weights:** High yield issuers with better environmental, social and governance (ESG) scores will have higher weights compared with the baseline index. Issuers with revenue from thermal coal, tobacco or weapons and lack of adherence to United Nations Global Compact (UNGC) principles are excluded. An overweight is assigned to green bonds as per Client Bonds Initiative (CBI) to incentivize sustainable financing aligned with climate change solutions.

**ESG does *not* mean sacrificing returns:** The JESG GHYCI delivers similar risk-adjusted returns as the baseline, exhibiting marginally higher returns since December 31, 2012 inception. The JESG GHYCI delivers this while excluding approximately 8% of instruments by market value relative to the baseline due to issuer involvement in controversial sectors or low JESG scores.

[\*\(Link to publication\)\*](#)

## Appendix

### Index Income Ceiling

J.P. Morgan defines the Index Income Ceiling (IIC) as the GNI per capita level that is adjusted every year by the growth rate of the World GNI per capita, Atlas method (current US\$), provided by the World Bank annually.

A country's GNI per capita should be below the IIC for three consecutive years to be eligible for JPM's EM index suite, as per the GNI criteria.

### Index PPP Ratio (IPR) explained

The Index PPP Ratio (IPR) was introduced with the 2018 Index Governance Review as a complimentary metric to determine the eligibility of a country in our EM sovereign index suite.

**Calculating the IPR:** The IPR is calculated, as below, from the one-year lagged GDP data available in IMF's World Economic Outlook publication. The EM IPR threshold is an indexed number which mimics the changes to the World IPR.

**IPR** = GDP (current prices, USD) / GDP (current prices, PPP dollars) \* 100

**Eligibility criteria:** As a result the 2018 Index Governance Review, a country will be eligible for the EM sovereign suite of indices if it either meets the GNI per capita-based IIC criterion or the PPP-based IPR criterion.

The PPP-based IPR criterion states that a country's IPR should below the EM threshold for three consecutive years, to be eligible.

Figure 15: Country-wise GNI per capita and IPR over past 3 years

	GNI per capita (in \$)			Index PPP Ratio (IPR)		
	2017	2018	2019	2017	2018	2019
<b>EM Threshold</b>	<b>19,244</b>	<b>18,761</b>	<b>18,821</b>	<b>61.3</b>	<b>59.5</b>	<b>60.6</b>
Afghanistan	610	570	560	31.2	29.3	29.1
Albania	4,390	4,320	4,320	35.0	34.9	36.3
Algeria	4,830	4,370	3,940	28.4	26.3	26.6
Angola	4,520	3,770	3,570	58.7	51.9	65.3
Antigua and Barbuda	12,400	12,880	13,810	63.5	63.7	63.6
Argentina	12,510	12,150	13,030	72.5	63.0	69.1
Armenia	4,030	3,770	3,990	41.3	40.8	40.7
Australia	60,360	54,130	51,360	106.7	105.5	110.5
Austria	47,630	45,850	45,440	93.3	93.1	94.6
Azerbaijan	6,550	4,760	4,080	29.5	22.4	23.6
Bahrain	22,660	21,330	21,150	48.4	47.9	49.6

	GNI per capita (in \$)			Index PPP Ratio (IPR)		
	2017	2018	2019	2017	2018	2019
<b>EM Threshold</b>	<b>19,244</b>	<b>18,761</b>	<b>18,821</b>	<b>61.3</b>	<b>59.5</b>	<b>60.6</b>
Bangladesh	1,190	1,330	1,470	35.8	37.4	37.9
Barbados	15,310	15,210	15,270	95.2	94.4	95.6
Belarus	6,720	5,630	5,280	32.3	27.8	30.3
Belgium	44,230	42,640	41,790	91.4	91.6	93.3
Belize	4,530	4,430	4,390	57.1	58.1	57.6
Benin	860	820	800	37.0	36.4	36.4
Bhutan	2,400	2,520	2,660	33.4	32.1	33.4
Bolivia	3,000	3,080	3,130	44.4	43.4	45.1
Bosnia and Herzegovina	5,050	4,950	4,910	39.6	39.6	40.5
Botswana	6,680	6,600	6,730	40.7	41.9	44.6
Brazil	10,090	8,850	8,600	55.7	56.8	63.3
Brunei Darussalam	38,590	32,890	29,600	38.9	34.8	35.8
Bulgaria	7,480	7,580	7,860	36.3	36.6	37.1
Burkina Faso	630	600	590	33.8	34.2	35.1
Burundi	260	270	280	38.3	39.9	42.4
Cabo Verde	3,160	3,070	3,030	47.4	46.7	47.0
Cambodia	1,060	1,140	1,230	33.2	34.0	34.4
Cameroon	1,470	1,410	1,370	38.6	38.5	39.1
Canada	47,460	43,880	42,870	94.7	90.9	93.2
Central African Republic	360	380	390	52.5	55.1	57.1
Chad	890	740	640	35.7	34.8	34.5
Chile	14,310	13,590	13,610	57.1	57.2	61.3
China	7,950	8,250	8,690	56.8	52.7	51.8
Colombia	7,180	6,340	5,890	44.1	41.2	44.2
Comoros	1,390	1,320	1,280	48.3	48.7	49.4
Costa Rica	10,480	10,860	11,120	73.2	72.5	69.4
Cote D'Ivoire	1,590	1,640	1,580	41.0	41.1	41.7
Croatia	12,970	12,360	12,570	53.2	53.0	53.6
Cyprus	26,210	24,430	23,720	68.6	67.2	68.3
Czech Republic	18,250	17,630	18,160	54.7	55.1	57.4
Democratic Rep. of Congo	460	470	460	61.1	60.4	60.4
Denmark	60,170	56,990	55,220	112.5	111.1	113.1
Djibouti	1,740	1,840	1,880	55.5	56.4	55.7
Dominica	6,720	7,120	6,590	68.9	72.1	71.1
Dominican Republic	6,320	6,480	6,630	45.7	44.6	44.0
Ecuador	6,000	5,840	5,920	53.6	54.0	54.0
Egypt	3,310	3,410	3,010	30.9	29.3	19.6
El Salvador	3,430	3,490	3,560	49.0	48.7	48.5
Equatorial Guinea	10,780	8,250	7,050	38.1	35.2	39.6
Eritrea	..	..	..	52.1	57.0	61.8
Estonia	18,380	17,830	18,190	59.8	59.9	62.4
Ethiopia	600	660	740	39.8	41.2	40.3
Fiji	4,810	4,800	4,970	53.8	55.6	56.7
Finland	46,630	45,040	44,580	103.1	102.3	103.2
France	40,730	38,780	37,970	91.0	90.0	90.6
FYR Macedonia	5,110	4,980	4,880	34.4	35.3	36.6
Gabon	8,040	7,180	6,650	41.4	39.1	40.7
Georgia	4,120	3,830	3,780	39.1	38.6	38.0
Germany	45,790	44,020	43,490	86.9	86.9	88.1
Ghana	1,960	1,840	1,880	31.9	35.3	35.1
Greece	20,360	18,870	18,090	68.1	66.5	67.1
Grenada	8,000	8,560	9,180	68.5	69.2	68.5
Guatemala	3,620	3,800	4,060	50.4	52.0	54.7
Guinea	710	740	790	38.7	34.3	36.7
Guinea-Bissau	620	640	660	38.3	40.1	42.6
Guyana	4,060	4,260	4,500	55.2	57.9	56.5
Haiti	810	780	760	45.9	42.2	43.1
Honduras	2,090	2,160	2,250	50.8	49.9	49.6
Hong Kong SAR	41,180	42,970	46,310	74.1	74.5	74.9
Hungary	12,960	12,500	12,870	46.4	46.0	48.1
Iceland	49,960	54,970	60,830	109.7	120.7	134.6
India	1,600	1,680	1,800	26.1	26.1	27.5
Indonesia	3,430	3,410	3,540	30.1	30.7	31.2



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Global Index Research  
2019 EM index eligibility insights  
30 May 2019

J.P.Morgan

	GNI per capita (in \$)			Index PPP Ratio (IPR)		
	2017	2018	2019	2017	2018	2019
<b>EM Threshold</b>	<b>19,244</b>	<b>18,761</b>	<b>18,821</b>	<b>61.3</b>	<b>59.5</b>	<b>60.6</b>
Iraq	5,810	5,380	4,630	31.2	26.2	29.6
Ireland	51,850	53,910	55,290	95.4	93.4	93.8
Islamic Republic of Iran	5,340	5,470	5,430	27.5	26.1	26.3
Israel	36,080	36,250	37,270	104.4	105.5	110.6
Italy	32,970	31,700	31,020	83.5	83.1	83.7
Jamaica	4,690	4,600	4,760	57.2	55.2	56.7
Japan	38,880	38,000	38,550	85.4	94.3	89.5
Jordan	3,890	3,920	3,980	45.2	45.2	45.1
Kazakhstan	11,420	8,800	7,970	41.7	30.4	33.3
Kenya	1,310	1,380	1,460	44.9	46.3	48.4
Kiribati	3,410	3,140	3,010	80.1	84.3	86.8
Korea	27,250	27,690	28,380	74.3	73.0	75.7
Kosovo	3,980	3,880	3,900	36.6	36.2	36.2
Kuwait	40,750	34,890	31,430	40.3	37.7	41.7
Kyrgyz Republic	1,180	1,110	1,130	32.4	31.4	32.7
Lao P.D.R.	2,000	2,150	2,270	34.3	35.1	34.4
Latvia	14,970	14,570	14,740	55.0	54.4	56.1
Lebanon	8,110	8,120	8,400	60.2	60.3	61.4
Lesotho	1,320	1,280	1,210	36.9	36.8	41.3
Liberia	630	610	620	53.8	56.0	53.7
Libya	5,860	4,700	5,500	43.4	50.0	49.3
Lithuania	15,110	14,790	15,200	49.7	49.5	51.7
Luxembourg	73,530	71,590	70,260	101.1	98.4	100.7
Macao SAR	64,480	65,130	72,050	70.4	70.1	70.1
Madagascar	420	400	400	27.3	26.6	28.9
Malawi	340	320	320	31.3	25.9	27.8
Malaysia	10,450	9,860	9,650	36.8	34.4	33.5
Maldives	8,310	9,050	9,760	65.3	65.2	65.3
Mali	790	770	770	36.5	36.5	37.3
Malta	24,640	23,750	24,080	63.5	63.6	65.3
Marshall Islands	4,720	4,630	4,840	100.6	104.3	113.3
Mauritania	1,230	1,130	1,100	30.3	28.6	28.6
Mauritius	9,790	9,790	10,130	45.9	45.8	47.2
Mexico	9,840	9,100	8,610	51.4	45.5	46.7
Micronesia	3,640	3,560	3,620	98.1	96.4	94.3
Moldova	2,230	2,140	2,200	36.1	35.8	40.3
Mongolia	3,850	3,530	3,270	32.4	30.1	28.0
Montenegro	7,250	7,090	7,400	40.5	42.0	43.2
Morocco	3,020	2,870	2,860	36.7	36.7	36.6
Mozambique	580	480	420	44.2	31.1	33.9
Myanmar	1,210	1,200	1,210	21.0	20.9	20.4
Namibia	5,300	4,700	4,570	45.6	43.0	49.8
Nauru	11,850	10,750	10,220	74.1	67.5	71.3
Nepal	740	730	800	30.2	29.4	31.4
Netherlands	49,030	46,610	46,180	89.7	88.9	90.0
New Zealand	40,270	38,560	38,970	102.8	103.0	106.6
Nicaragua	1,950	2,040	2,130	39.2	38.7	37.9
Niger	390	370	360	37.4	36.8	37.6
Nigeria	2,880	2,470	2,100	45.0	37.2	33.6
Norway	93,050	82,010	75,990	107.7	101.1	104.6
Oman	18,140	16,200	14,440	38.8	35.0	37.2
Pakistan	1,430	1,500	1,580	28.9	28.2	28.7
Palau	11,900	12,580	12,700	110.2	112.6	110.6
Panama	11,740	12,400	13,280	59.4	59.6	59.4
Papua New Guinea	2,780	2,480	2,340	73.4	65.5	65.7
Paraguay	5,670	5,430	5,470	45.8	43.3	43.8
Peru	6,160	5,950	5,960	48.9	47.2	49.8
Philippines	3,520	3,580	3,660	39.2	37.8	35.8
Poland	13,340	12,670	12,730	47.1	44.6	46.6
Portugal	20,440	19,850	19,820	68.3	68.4	69.4
Puerto Rico	19,420	19,820	19,820	78.9	79.6	80.2
Qatar	75,150	66,110	60,510	50.9	46.3	49.2
Republic of Congo	2,350	1,770	1,430	28.2	26.2	29.7

	GNI per capita (in \$)			Index PPP Ratio (IPR)		
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<b>EM Threshold</b>	<b>19,244</b>	<b>18,761</b>	<b>18,821</b>	<b>61.3</b>	<b>59.5</b>	<b>60.6</b>
Romania	9,520	9,530	10,000	42.5	42.6	43.8
Russia	11,760	9,720	9,230	35.6	33.1	39.3
Rwanda	710	710	720	38.9	37.1	37.0
Samoa	4,070	4,120	4,090	80.0	72.2	74.0
San Marino	..	..	..	79.2	78.7	79.6
São Tomé and Príncipe	1,690	1,730	1,770	51.3	54.6	57.3
Saudi Arabia	23,900	21,730	20,090	38.3	36.7	38.7
Senegal	1,290	1,240	1,240	38.0	37.8	38.5
Serbia	5,540	5,300	5,180	37.9	37.6	39.2
Seychelles	14,020	13,830	14,170	56.8	55.7	54.5
Sierra Leone	550	480	510	41.8	34.6	31.3
Singapore	54,020	52,350	54,530	62.9	61.9	61.3
Slovak Republic	17,580	17,010	16,610	53.6	52.6	53.4
Slovenia	22,240	21,700	22,000	67.5	67.2	68.6
Solomon Islands	1,920	1,880	1,920	96.1	97.9	97.6
Somalia	..	..	..	35.8	34.5	34.5
South Africa	6,060	5,490	5,430	43.5	39.8	45.5
South Sudan	1,020	390	..	52.5	14.7	15.3
Spain	28,420	27,580	27,180	73.8	73.0	73.9
Sri Lanka	3,760	3,790	3,850	32.4	31.1	31.7
St. Kitts and Nevis	15,470	16,020	16,240	65.3	64.4	62.2
St. Lucia	7,930	8,330	8,830	70.0	67.8	66.3
St. Vincent and the Grenadines	7,360	7,270	7,390	62.4	62.5	62.1
Sudan	2,000	2,140	2,380	40.0	32.5	25.8
Suriname	8,770	6,660	5,150	55.3	39.2	39.4
Sweden	57,880	54,530	52,590	103.9	102.9	103.4
Switzerland	85,780	82,080	80,560	138.3	132.7	129.8
Taiwan Province of China	..	..	..	47.5	46.8	48.1
Tajikistan	1,240	1,110	990	32.6	26.7	25.1
Tanzania, United Republic	910	900	910	32.8	31.7	31.8
Thailand	5,710	5,700	5,950	35.9	35.3	36.8
The Bahamas	27,920	27,850	29,170	100.5	101.5	100.9
The Gambia	670	640	680	26.7	27.7	26.7
Timor-Leste	2,980	2,290	1,790	43.5	34.7	37.4
Togo	630	600	610	36.4	36.6	36.8
Tonga	4,280	4,060	4,010	76.8	75.6	77.0
Trinidad and Tobago	18,840	16,760	15,340	53.4	52.5	53.2
Tunisia	3,930	3,720	3,490	33.3	31.6	29.0
Turkey	12,000	11,230	10,940	44.9	43.2	39.0
Turkmenistan	7,030	6,820	6,380	40.2	37.8	36.6
Tuvalu	5,490	5,130	4,970	94.7	92.5	95.2
Uganda	670	630	600	29.1	29.4	29.8
Ukraine	2,650	2,310	2,390	26.6	26.4	30.3
United Arab Emirates	43,380	40,950	39,130	55.0	52.7	55.0
United Kingdom	43,720	42,370	40,530	105.6	94.5	89.9
United States	56,300	56,800	58,270	100.0	100.0	100.0
Uruguay	15,830	15,200	15,250	73.3	70.5	75.7
Uzbekistan	2,170	2,230	2,000	34.9	32.3	21.9
Vanuatu	2,860	2,870	2,920	111.4	109.8	112.7
Venezuela	..	..	..	47.1	54.2	55.1
Vietnam	1,950	2,060	2,160	34.5	33.8	34.0
Yemen	1,340	1,250	1,250	51.8	47.4	42.5
Zambia	1,560	1,360	1,290	34.1	32.0	37.3
Zimbabwe	1,120	1,120	1,170	50.4	49.7	51.5

Source: J.P. Morgan, World Bank, IMF World Economic Outlook.

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