

Country Code	ISO	WFO Subject Code	Country Subject Description	Subject Notes	Units	Scale
AF	AF	AF	Algeria		DA	1000000000000.0
AG	AG	AG	Antigua and Barbuda		EC\$	1000000000000.0
AI	AI	AI	Anguilla		EC\$	1000000000000.0
AL	AL	AL	Albania		LEK	1000000000000.0
AM	AM	AM	Armenia		AMD	1000000000000.0
AO	AO	AO	Angola		Kz	1000000000000.0
AR	AR	AR	Argentina		ARS	1000000000000.0
AS	AS	AS	American Samoa		US\$	1000000000000.0
AT	AT	AT	Austria		S	1000000000000.0
AU	AU	AU	Australia		A\$	1000000000000.0
AW	AW	AW	Aruba		fl	1000000000000.0
AX	AX	AX	Aland Islands		SEK	1000000000000.0
AY	AY	AY	Ascension Island		US\$	1000000000000.0
AZ	AZ	AZ	Azerbaijan		AZN	1000000000000.0
BA	BA	BA	Bosnia and Herzegovina		BAM	1000000000000.0
BB	BB	BB	Barbados		BBD	1000000000000.0
BD	BD	BD	Bangladesh		Taka	1000000000000.0
BE	BE	BE	Belgium		fr	1000000000000.0
BF	BF	BF	Burkina Faso		CFA franc	1000000000000.0
BG	BG	BG	Bulgaria		BGN	1000000000000.0
BH	BH	BH	Bahrain		Dinar	1000000000000.0
BI	BI	BI	Benin		CFA franc	1000000000000.0
BJ	BJ	BJ	Burkina Faso		CFA franc	1000000000000.0
BK	BK	BK	Burkina Faso		CFA franc	1000000000000.0
BL	BL	BL	Burkina Faso		CFA franc	1000000000000.0
BM	BM	BM	Bermuda		US\$	1000000000000.0
BN	BN	BN	Brunei Darussalam		Brunei dollar	1000000000000.0
BO	BO	BO	Bolivia		Boliviano	1000000000000.0
BQ	BQ	BQ	Bonaire		fl	1000000000000.0
BR	BR	BR	Brazil		Real	1000000000000.0
BS	BS	BS	Bahamas		BS\$	1000000000000.0
BT	BT	BT	Bhutan		Ngultrum	1000000000000.0
BV	BV	BV	Bouvet Island		NOK	1000000000000.0
BW	BW	BW	Botswana		Pula	1000000000000.0
BY	BY	BY	Belarus		BYN	1000000000000.0
BZ	BZ	BZ	Belize		BZ\$	1000000000000.0
CA	CA	CA	Canada		CA\$	1000000000000.0
CC	CC	CC	Cocos (Keeling) Islands		A\$	1000000000000.0
CD	CD	CD	Congo		CFA franc	1000000000000.0
CE	CE	CE	Congo		CFA franc	1000000000000.0
CF	CF	CF	Congo		CFA franc	1000000000000.0
CG	CG	CG	Congo		CFA franc	1000000000000.0
CH	CH	CH	Switzerland		Sfr	1000000000000.0
CI	CI	CI	Cote d'Ivoire		CFA franc	1000000000000.0
CK	CK	CK	Cook Islands		US\$	1000000000000.0
CL	CL	CL	Chile		CLP	1000000000000.0
CM	CM	CM	Cameroun		CFA franc	1000000000000.0
CN	CN	CN	China		Yuan	1000000000000.0
CO	CO	CO	Colombia		Colombian peso	1000000000000.0
CR	CR	CR	Costa Rica		Costa Rican colón	1000000000000.0
CU	CU	CU	Cuba		Cuban peso	1000000000000.0
CV	CV	CV	Cape Verde		Escudo	1000000000000.0
CX	CX	CX	Christmas Island		A\$	1000000000000.0
CY	CY	CY	Cyprus		€	1000000000000.0
CZ	CZ	CZ	Czechia		Czech koruna	1000000000000.0
DC	DC	DC	Distrito Federal		US\$	1000000000000.0
DD	DD	DD	Germany		DM	1000000000000.0
DE	DE	DE	Germany		€	1000000000000.0
DF	DF	DF	Germany		DM	1000000000000.0
DG	DG	DG	Germany		DM	1000000000000.0
DH	DH	DH	Germany		DM	1000000000000.0
DI	DI	DI	Germany		DM	1000000000000.0
DJ	DJ	DJ	Djibouti		Djiboutian franc	1000000000000.0
DK	DK	DK	Denmark		DKK	1000000000000.0
DM	DM	DM	Dominican Republic		Dominican peso	1000000000000.0
DN	DN	DN	Dominican Republic		Dominican peso	1000000000000.0
DO	DO	DO	Dominican Republic		Dominican peso	1000000000000.0
DR	DR	DR	Dominican Republic		Dominican peso	1000000000000.0
DS	DS	DS	Dominican Republic		Dominican peso	1000000000000.0
DT	DT	DT	Dominican Republic		Dominican peso	1000000000000.0
DU	DU	DU	Dominican Republic		Dominican peso	1000000000000.0
DV	DV	DV	Dominican Republic		Dominican peso	1000000000000.0
DW	DW	DW	Dominican Republic		Dominican peso	1000000000000.0
DX	DX	DX	Dominican Republic		Dominican peso	1000000000000.0
DY	DY	DY	Dominican Republic		Dominican peso	1000000000000.0
DZ	DZ	DZ	Algeria		DA	1000000000000.0
EA	EA	EA	Spain		€	1000000000000.0
EC	EC	EC	Ecuador		Ecuadorian dollar	1000000000000.0
EE	EE	EE	Estonia		Euro	1000000000000.0
EG	EG	EG	Egypt		Egyptian pound	1000000000000.0
EH	EH	EH	Western Sahara		MAD	1000000000000.0
ER	ER	ER	Eritrea		Eritrean nakfa	1000000000000.0
ES	ES	ES	Spain		€	1000000000000.0
ET	ET	ET	Ethiopia		Birr	1000000000000.0
EU	EU	EU	European Union		€	1000000000000.0
EV	EV	EV	European Union		€	1000000000000.0
EW	EW	EW	European Union		€	1000000000000.0
EX	EX	EX	European Union		€	1000000000000.0
EY	EY	EY	European Union		€	1000000000000.0
EZ	EZ	EZ	European Union		€	1000000000000.0
FA	FA	FA	Iran		Rial	1000000000000.0
FB	FB	FB	Iran		Rial	1000000000000.0
FC	FC	FC	Iran		Rial	1000000000000.0
FD	FD	FD	Iran		Rial	1000000000000.0
FE	FE	FE	Iran		Rial	1000000000000.0
FF	FF	FF	Iran		Rial	1000000000000.0
FG	FG	FG	Iran		Rial	1000000000000.0
FH	FH	FH	Iran		Rial	1000000000000.0
FI	FI	FI	Finland		Finnish markka	1000000000000.0
FJ	FJ	FJ	Fiji		Fiji dollar	1000000000000.0
FK	FK	FK	Falkland Islands		US\$	1000000000000.0
FL	FL	FL	Florida		US\$	1000000000000.0
FM	FM	FM	Federated States of Micronesia		US\$	1000000000000.0
FO	FO	FO	Faroer Islands		DKK	1000000000000.0
FR	FR	FR	France		€	1000000000000.0
FS	FS	FS	France		€	1000000000000.0
FT	FT	FT	France		€	1000000000000.0
FU	FU	FU	France		€	1000000000000.0
FV	FV	FV	France		€	1000000000000.0
FW	FW	FW	France		€	1000000000000.0
FX	FX	FX	France		€	1000000000000.0
FY	FY	FY	France		€	1000000000000.0
FZ	FZ	FZ	France		€	1000000000000.0
GA	GA	GA	Gabon		CFA franc	1000000000000.0
GB	GB	GB	Great Britain		£	1000000000000.0
GC	GC	GC	Great Britain		£	1000000000000.0
GD	GD	GD	Grenada		GD\$	1000000000000.0
GE	GE	GE	Georgia		Lari	1000000000000.0
GF	GF	GF	Guam		US\$	1000000000000.0
GG	GG	GG	Guernsey		£	1000000000000.0
GH	GH	GH	Ghana		Cedi	1000000000000.0
GI	GI	GI	Guinea-Bissau		Guinean-Bissau escudo	1000000000000.0
GJ	GJ	GJ	Guernsey		£	1000000000000.0
GK	GK	GK	Guernsey		£	1000000000000.0
GL	GL	GL	Greenland		DKK	1000000000000.0
GM	GM	GM	Guinea		Guinean franc	1000000000000.0
GN	GN	GN	Guinea		Guinean franc	1000000000000.0
GO	GO	GO	Guinea		Guinean franc	1000000000000.0
GP	GP	GP	Guadeloupe		€	1000000000000.0
GQ	GQ	GQ	Equatorial Guinea		CFA franc	1000000000000.0
GR	GR	GR	Greece		€	1000000000000.0
GS	GS	GS	South Georgia and the South Sandwich Islands		US\$	1000000000000.0
GT	GT	GT	Guatemala		Guatemalan quetzal	1000000000000.0
GU	GU	GU	Guam		US\$	1000000000000.0
GV	GV	GV	Guinea-Bissau		Guinean-Bissau escudo	1000000000000.0
GW	GW	GW	Guinea-Bissau		Guinean-Bissau escudo	1000000000000.0
GX	GX	GX	Guinea-Bissau		Guinean-Bissau escudo	1000000000000.0
GY	GY	GY	Guyana		Guyana dollar	1000000000000.0
HA	HA	HA	Haiti		Haitian gourde	1000000000000.0
HB	HB	HB	Haiti		Haitian gourde	1000000000000.0
HC	HC	HC	Haiti		Haitian gourde	1000000000000.0
HD	HD	HD	Haiti		Haitian gourde	1000000000000.0
HE	HE	HE	Haiti		Haitian gourde	1000000000000.0
HF	HF	HF	Haiti		Haitian gourde	1000000000000.0
HG	HG	HG	Haiti		Haitian gourde	1000000000000.0
HH	HH	HH	Haiti		Haitian gourde	1000000000000.0
HI	HI	HI	Hawaii		US\$	1000000000000.0
HJ	HJ	HJ	Hawaii		US\$	1000000000000.0
HK	HK	HK	Hong Kong		HK\$	1000000000000.0
HL	HL	HL	Hong Kong		HK\$	1000000000000.0
HM	HM	HM	Hong Kong		HK\$	1000000000000.0
HN	HN	HN	Honduras		Honduran lempira	1000000000000.0
HO	HO	HO	Honduras		Honduran lempira	1000000000000.0
HP	HP	HP	Honduras		Honduran lempira	1000000000000.0
HQ	HQ	HQ	Honduras		Honduran lempira	1000000000000.0
HR	HR	HR	Croatia		Croatian kuna	1000000000000.0
HS	HS	HS	Hong Kong		HK\$	1000000000000.0
HT	HT	HT	Haiti		Haitian gourde	1000000000000.0
HU	HU	HU	Hungary		Hungarian forint	1000000000000.0
HV	HV	HV	Haiti		Haitian gourde	1000000000000.0
HW	HW	HW	Haiti		Haitian gourde	1000000000000.0
HX	HX	HX	Haiti		Haitian gourde	1000000000000.0
HY	HY	HY	Haiti		Haitian gourde	1000000000000.0
HZ	HZ	HZ	Haiti		Haitian gourde	1000000000000.0
IA	IA	IA	Iran		Rial	1000000000000.0
IB	IB	IB	Iran		Rial	1000000000000.0
IC	IC	IC	Iran		Rial	1000000000000.0
ID	ID	ID	Indonesia		Rupiah	1000000000000.0
IE	IE	IE	Ireland		€	1000000000000.0
IF	IF	IF	Ireland		€	1000000000000.0
IG	IG	IG	Ireland		€	1000000000000.0
IH	IH	IH	Ireland		€	1000000000000.0
II	II	II	Ireland		€	1000000000000.0
IL	IL	IL	Israel		Sheqel	1000000000000.0
IM	IM	IM	Isle of Man		£	1000000000000.0
IN	IN	IN	India		Indian rupee	1000000000000.0
IO	IO	IO	British Indian Ocean Territory		US\$	1000000000000.0
IP	IP	IP	Iran		Rial	1000000000000.0
IQ	IQ	IQ	Iraq		Dinar	1000000000000.0
IR	IR	IR	Iraq		Dinar	1000000000000.0
IS	IS	IS	Iceland		Icelandic krona	1000000000000.0
IT	IT	IT	Italy		€	1000000000000.0
IV	IV	IV	Ivory Coast		CFA franc	1000000000000.0
IW	IW	IW	Israel		Sheqel	1000000000000.0
IX	IX	IX	Ireland		€	1000000000000.0
IY	IY	IY	Ireland		€	1000000000000.0
IZ	IZ	IZ	Ireland		€	1000000000000.0
JA	JA	JA	Jordan		Jordanian dinar	1000000000000.0
JB	JB	JB	Jordan		Jordanian dinar	1000000000000.0
JC	JC	JC	Jordan		Jordanian dinar	1000000000000.0
JD	JD	JD	Jordan		Jordanian dinar	1000000000000.0
JE	JE	JE	Jordan		Jordanian dinar	1000000000000.0
JF	JF	JF	Jordan		Jordanian dinar	1000000000000.0
JG	JG	JG	Jordan		Jordanian dinar	1000000000000.0
JH	JH	JH	Jordan		Jordanian dinar	1000000000000.0
JI	JI	JI	Jordan		Jordanian dinar	1000000000000.0
JK	JK	JK	Jordan		Jordanian dinar	1000000000000.0
JL	JL	JL	Jordan		Jordanian dinar	1000000000000.0
JM	JM	JM	Jordan			

**Global inflation is coming.** Investors were certainly absorbed with US tax law this month, but the new law matters less for me. An act may indeed be passed, something I thought unlikely, but it may turn out to be more of a Republican gesture seeking to capture credit for speculative excess rather than a coherent project. For me, the key to markets here is more the idea that low inflation is a permanent condition which inflates asset values, possibly US equity values most of all.

In fact, I find the assumption of endless disinflation is the great weak point of today's market prices. Much is made of the slow return to inflation after the Great Recession of 2008-9. Since that shock was unprecedented as was the scale of fiscal deficits grudgingly allowed to counter it, I am not sure why investors are so surprised that inflation is slow to emerge after it. At the same time, inflation in a world with more integrated supply chains and trading links should be set more and more by joint conditions than those in any one country.

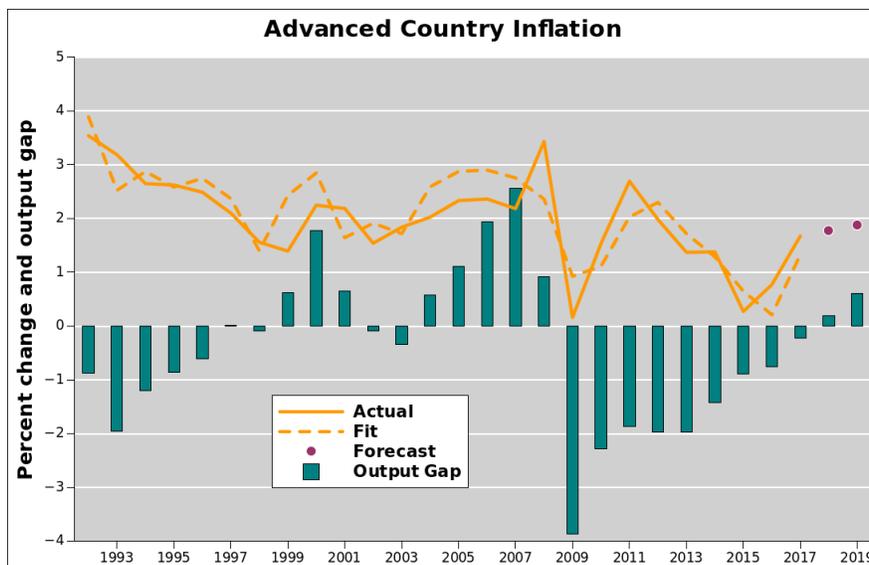
Taking a global point of view, I looked at advanced country inflation as it depends on advanced countries' aggregate output gap and on oil shocks. (Exchange rates cancel themselves out among the countries.) Allowing for the big impact of year-before inflation, the fit is not bad and we are clearly set for around 2% average inflation in 2018. The main driver is consistently declining margins of un-

used capacity, which is confirmed in the data on every side.

Admittedly, investors and central banks panicked when inflation did not emerge smoothly in 2015-6. I find the low inflation in 2015 explicable by the collapse in oil prices, which are indeed a product of US innovation in shale oil, but also of the slow growth in global demand for oil in a lingering recovery. I did not directly estimate the impact of China's under-reported recession in 2015, and its falling currency, which surely was another one-time drag on global inflation. (See below.)

If we think my aggregate equation is usable, what does it say about the future? It says that a steady working down of the output gap with no further change in oil prices is consistent with a gentle but continuing rise in average inflation in advanced economies. If oil prices for any reason reach \$65 per barrel next year, we could be well over 2% inflation in some countries.

This average outcome is already evoking central bank responses. US policy, which is normalizing to a low real Fed Funds rate, could be heading toward a 3% policy rate. Meanwhile, the ECB's opposite continuation of QE and deferral of rate hikes until 2019 at the earliest, means the pressure for a weak Euro and also industrial-sized investment flows from European portfolio managers into US bond markets may both emerge.



**An American Christmas.** A tax-cut bill is coming, to the great benefit of Republican Party donors. But the great harm of this tax cut is that it is cyclically unnecessary. It is even worse if it turns out to fuel more inflation and less growth than its proponents argue. Unfortunately, the dogged claim that lower taxes will bolster demand and growth even at a point of full employment and so pay for the tax cuts may have to fail in experience to shake certain ideologists. Since a failure is likely *at this point in the cycle*, pushing through this experiment is mostly about proving the ability to execute any policy now, when Republicans control both Houses and the presidency.

Faced with a limited support from fiscal policy, the Fed will be navigating with a new chairman, Jerome Powell. Today's situation, with a great asset buying experiment just beginning to unwind, is so different from the past that I actually trust him more than Yellen and her econometrics. All such econometrics is a summary and description of historical experience, and so may offer little help

with the unusual conditions today. For this reason, I assume Powell will get on with the reduction in Fed asset holdings as planned and lean toward faster rate hikes if speculative excesses continue in markets.

So far, actual conditions seem to be coming back a little more slowly from a hurricane-depressed 3Q than I thought. Hurricane replacement of cars and consumer goods boosted spending at the very end of the third quarter and into the fourth. At the same time, continuously slower spending on health care is emerging in the data. Possibly resigned to being cut off from care one way or another by the new Republican administration, some Americans may be foregoing treatment. Lastly, capital goods deliveries dipped in October, suggesting a pause in equipment spending. So far that seems like an anomaly, and overall investment should be poised to take off, bolstering final demand from a slow 3Q, although more in hurricane-replacement housing than in new equipment.

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**Europe without a captain.** Politics continues to complicate the European experiment. Germany is still searching for a viable coalition government, probably one that much weakens Ms. Merkel's position. If a pro-European government emerges in Italian elections to be held by May, Germany may hold a less dominant position in designing a fiscal plan for Europe. Any new plan including French and Italian views will almost certainly include fiscal buffers against the kind of deep localized recessions we have seen in Europe since 2008.

European growth is already solidly supported by fiscal policy. As the expansion widens it draws in new waves of employment even in late-recovery Italy. In Germany meanwhile, wages, employment, and incomes are rising strongly. Even so, early signs for next year's budgets point to expansionary policies that are very likely to cement the upswing as political leaders cannot help themselves once their creditor is good again.

On the monetary side, we learned that the ECB

will unwind its QE as slowly as possible, and defer any rate hikes to 2019 at the earliest. To some observers this looks like a monetary policy aimed at the weakest conditions in Europe, including in Italy. In the meantime, a big push is underway to normalize non-performing loan books, particularly in Italy, Greece, and Portugal. Rules to make forbearance expensive and to ease the way toward more transparent bad loan markets have been introduced.

In what may be a critical turning point, Italy's credit recovery is finally working itself out. Banca d'Italia reports show how its long game of waiting for economic recovery and time to allow banks to lift themselves out of a bad loan hole is working. Low lending rates for a few prime customers, together with early signs of profitable corporate trading open up the window for profitable bank lending. And over time even weak banks can slowly provision and write off bad loans, at one point over 25% of loans outstanding before collateral. With the Banca d'Italia like a guard dog protecting against

depositor losses, banks have time to sell new equity against their remaining, profitable operations, all except a some small badly troubled ones early this year. The whole process is turning into a positively-

reinforcing cycle as real estate values are on the cusp of rising after a deep fall, which will improve collateral and recovery values and make new credit safer.<sup>1</sup>

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**Tightening in China.** Activity in China is holding up better than I feared after the National Congress, ahead of which spending was deliberately stoked. We know the effort to cut down steel production and coal burning is in place and will cut activity. Also slowing demand will be the long squeeze on housing demand that may finally crimp building. As an offset, the plan is to expand land available for building rental-only housing. Other positive offsets to growth are visible, in internet-enabled areas and in a big push into electric cars, including a crash program to set up a system of recharging stations. But on balance, GDP growth should slow at least a little.

Deleveraging policies, also held up for the Congress, are coming. Small scale internet lending is going to get a comprehensive review and regulation, as is the wealth management industry where losses on high risk loans have been covered up by bank sponsors, creating an explosive growth in high-yield and seemingly failure-free assets. Other abuses under scrutiny include the implied guarantees by regional governments of supposed public-

private partnerships, and the continued rollover of state bank loans to zombie heavy industries. The only question is how losses will be allocated as these policies are carried through. Perhaps to help cushion the coming blows, foreign investors are now allowed unlimited investment in local banks and investment companies.

While these deep adjustments are underway, the postponed problem of dealing with North Korea and its missile threat to the US is also pressing. A steady trickle of US trade measures, in woodboard, aluminum and in a proposed widening of controls on investment in innovative US companies is a reminder of how much harm the US can do if not helped on Korea. North Korea, in turn is mortified by the loss of its only ally, and seems to be turning more radically toward self-sufficiency and hostility toward all possible enemies, domestic and foreign. In this complicated situation the last Hwasong-15 missile test will have to be met with at least some tougher sanctions, and possibly a sudden military strike.

**I still think the US tax law is a political diversion from the central issue: how can markets absorb the coming return of inflation?**

**For investors who grew up with markets where credit accidents are a product of recession, risks to financial markets in a burgeoning expansion seems implausible. Without recession there will be few gross failures to realize revenue plans, with sudden losses to amplify credit cut-offs here and there.**

**Today, the main risk is more about very large extensions of credit based on near zero interest rates. An exploding stock of debt will be subject to a big revaluation loss once inflation emerges, and potentially some rollover risks will only become clear at that point.**

**So, we can have a meaningful credit shock within a continued expansion, which is my main case.**

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<sup>1</sup>Banca D'Italia. (November, 2017). *Financial Stability Report* (ISSN 2280-7624) Rome, Italy: Printing and Publishing Division of the Bank of Italy