

# UBS Precious Metals Outlook

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**ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON SLIDE 53**

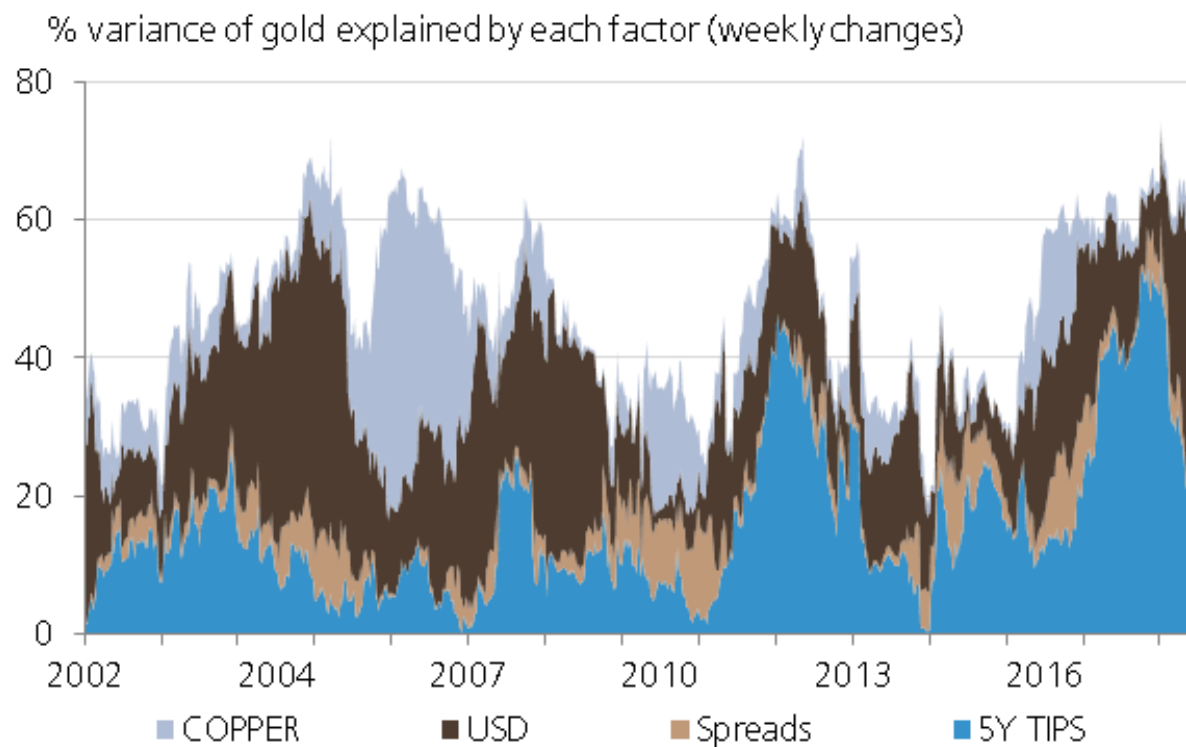
## Section 1

# Gold

*"Gold gets dug out of the ground in Africa, or someplace. Then we melt it down, dig another hole, bury it again and pay people to stand around guarding it...Anyone watching from Mars would be scratching their head."*

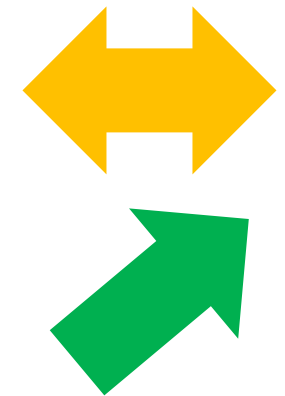
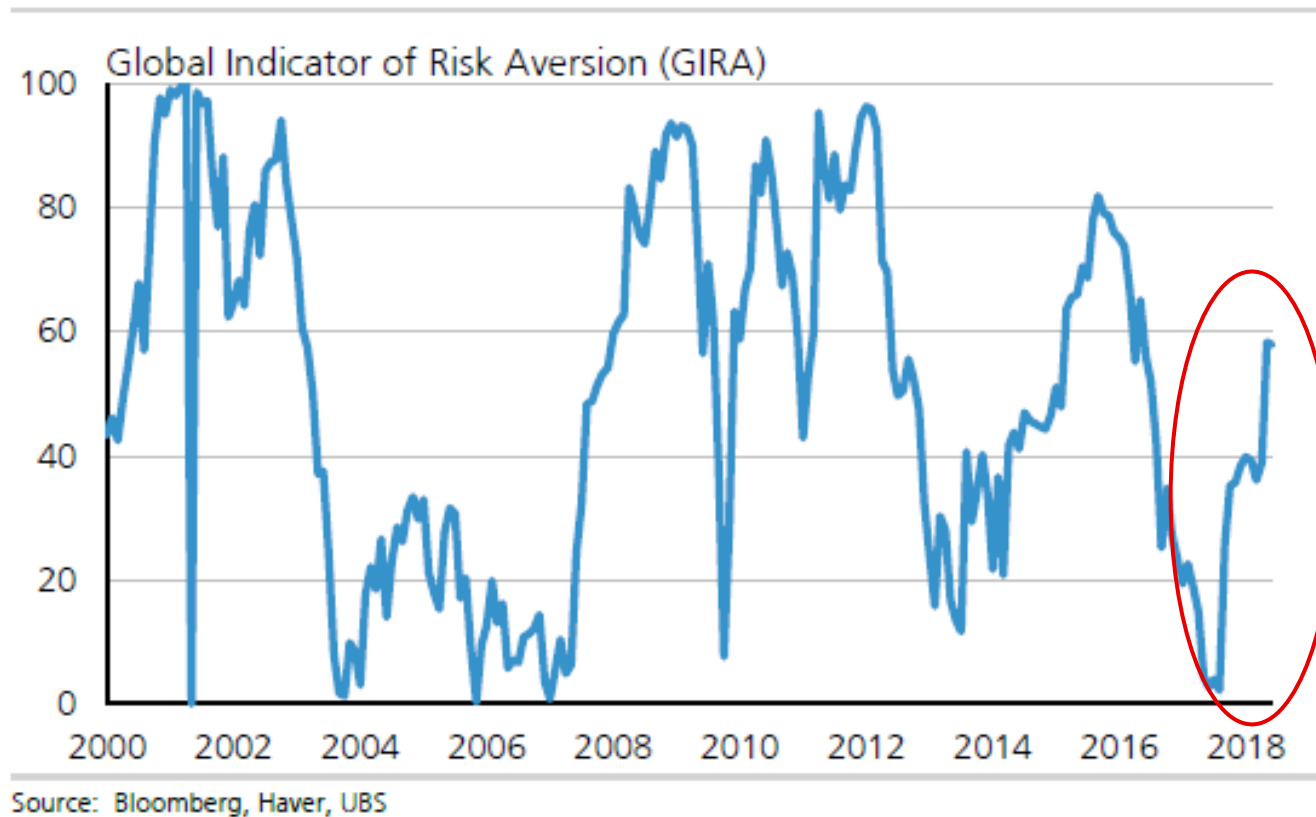
– Warren Buffett, American business magnate and investor

# Gold is a macro asset largely driven by **rates** and **USD**



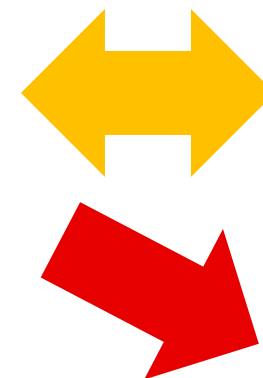
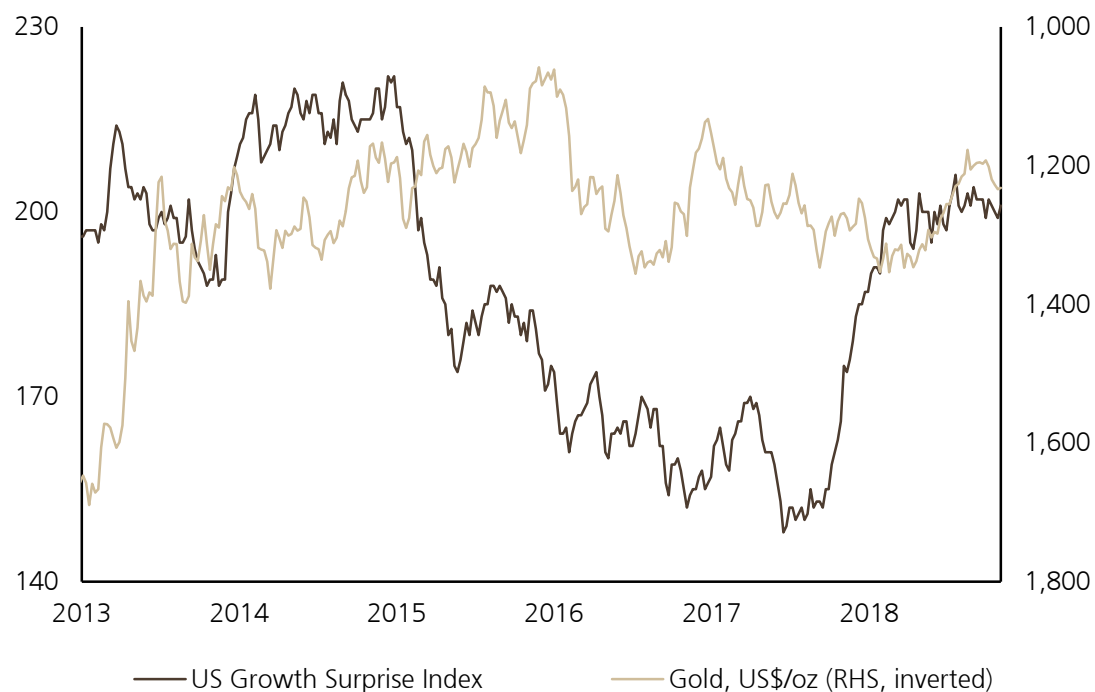
- The dollar's influence increased significantly this year

# The macro backdrop & implications for gold: risk



- Risks abound, but no immediate concern of anything systemic
- Many have been disappointed that gold has not performed better as a safe haven

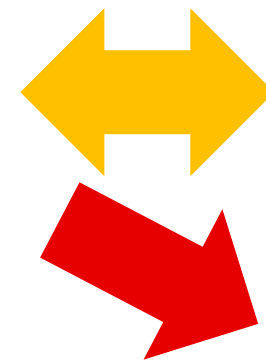
# The macro backdrop & implications for gold: growth



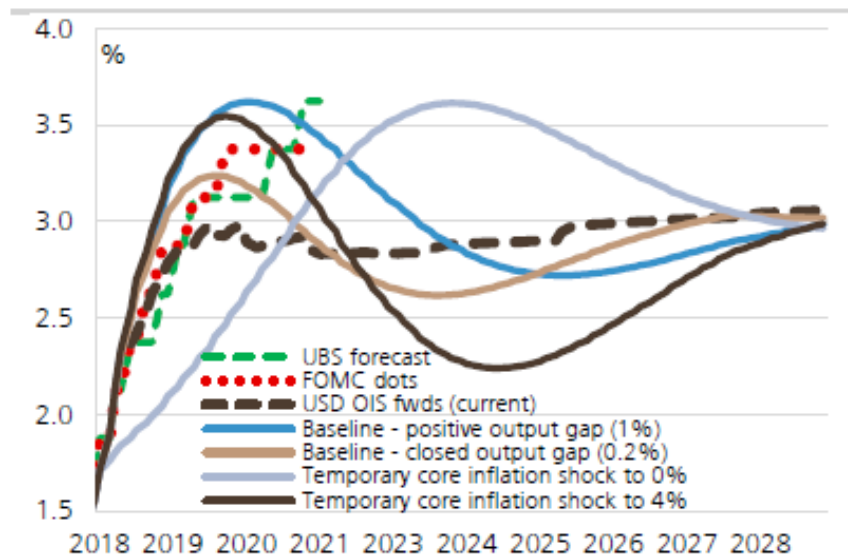
- Despite downside risks, steady growth especially in the US diminishes gold's appeal
- Persistent expectation of higher equities acts as a headwind

# The macro backdrop & implications for gold: **policy**

- Less scope for pressure from policy expectations, but higher rates make opportunity cost of holding gold more expensive

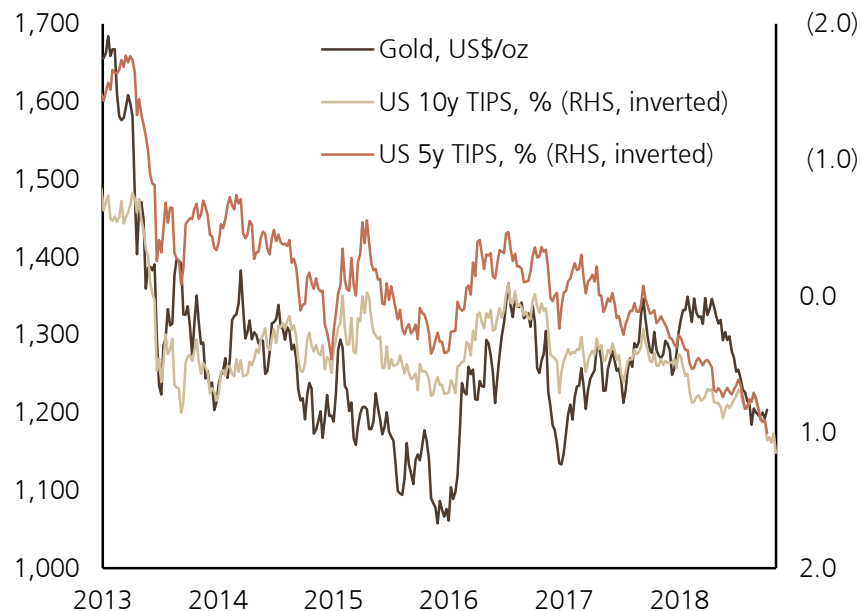


Fed expectations



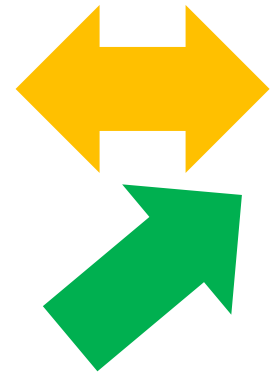
Source: UBS calculations

Gold vs US 10y TIPS, weekly data

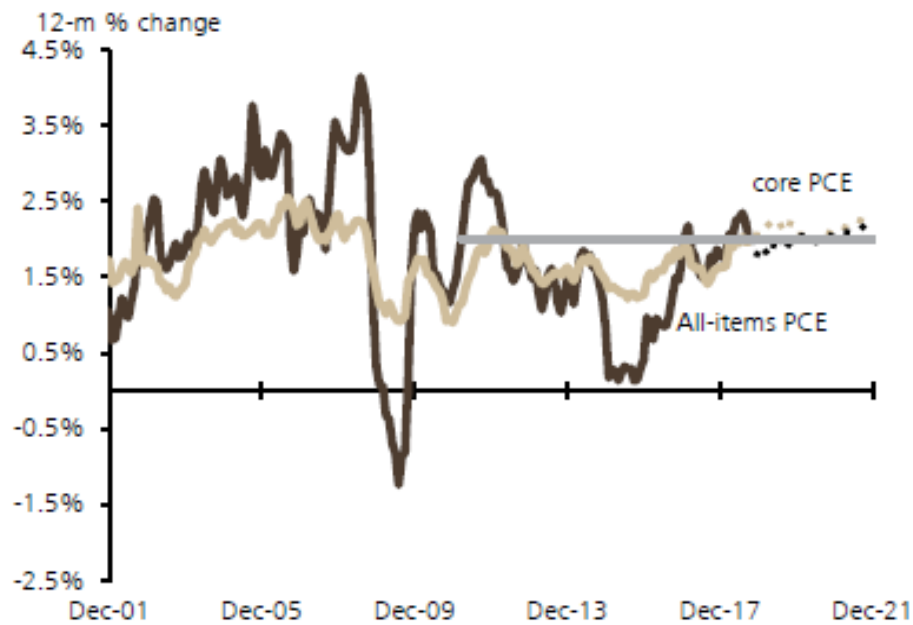


# The macro backdrop & implications for gold: inflation

- Upside risks to inflation could support gold
- But expectations remain moderate

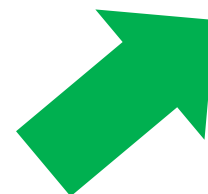


Inflation moves modestly above the FOMC target



Source: BEA, UBS

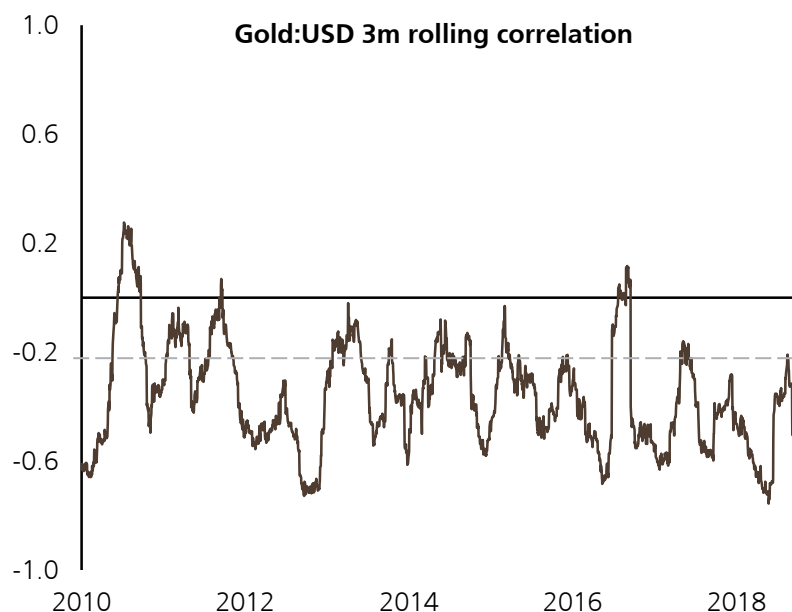
# The macro backdrop & implications for gold: USD



## DXY more sensitive to foreign than US yields



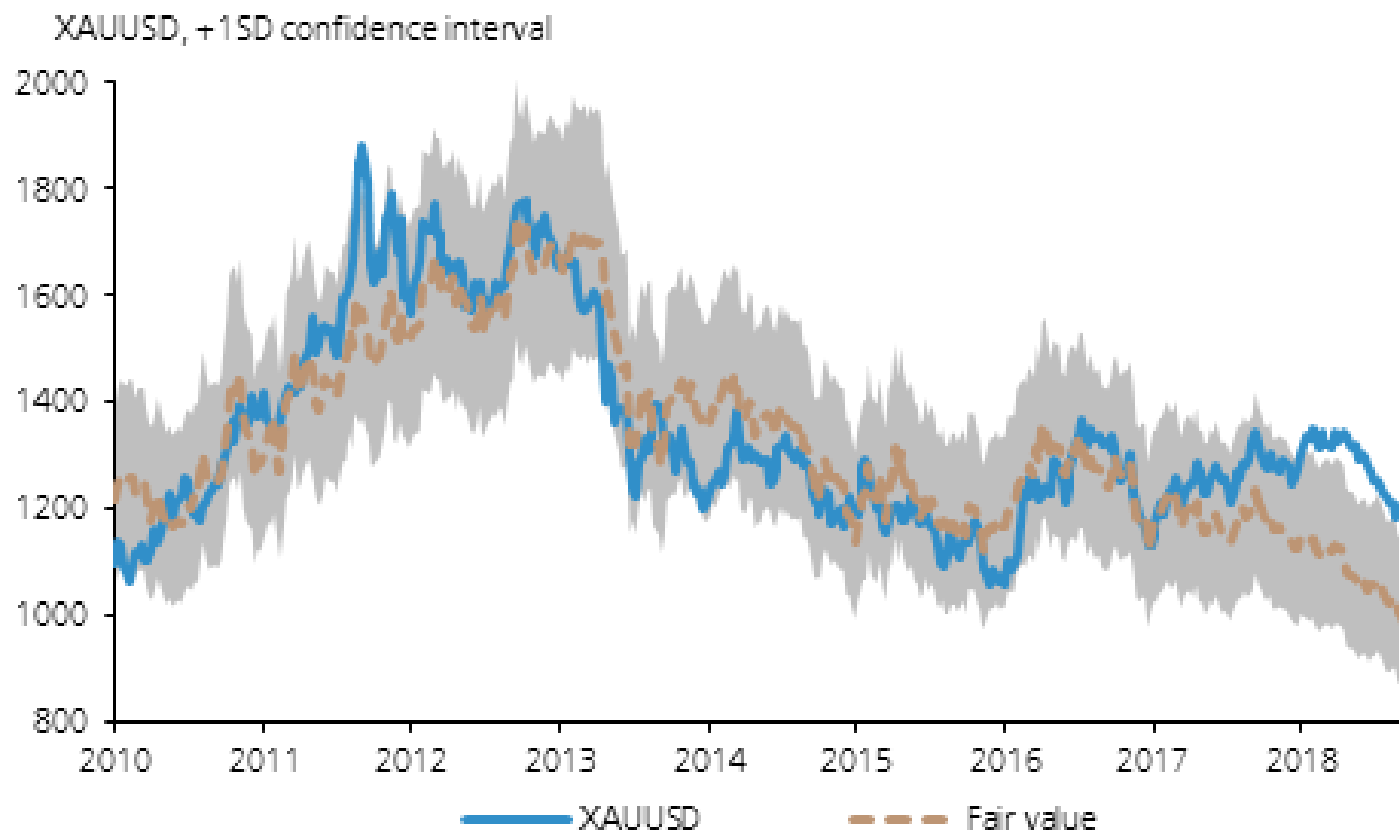
Source: Bloomberg, UBS. Note: Regression of weekly percentage changes in DXY vs changes in US yields, foreign yields and the MSCI global index. Shaded area indicates parameters are statistically distinct from each other based on a Wald test at a 5% significance level.



- Dollar strength has been a key headwind
- USD correction should be supportive for gold

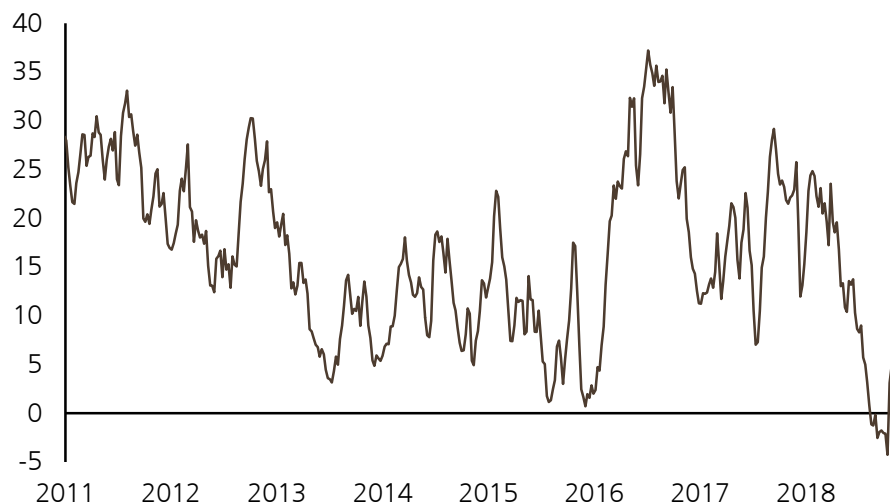


# Our gold **fair value** estimates signal weakness

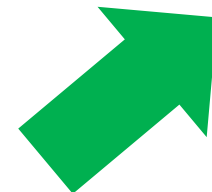


# Positioning is very **lean**, raising upside risks

Gold net speculative positions on Comex, moz

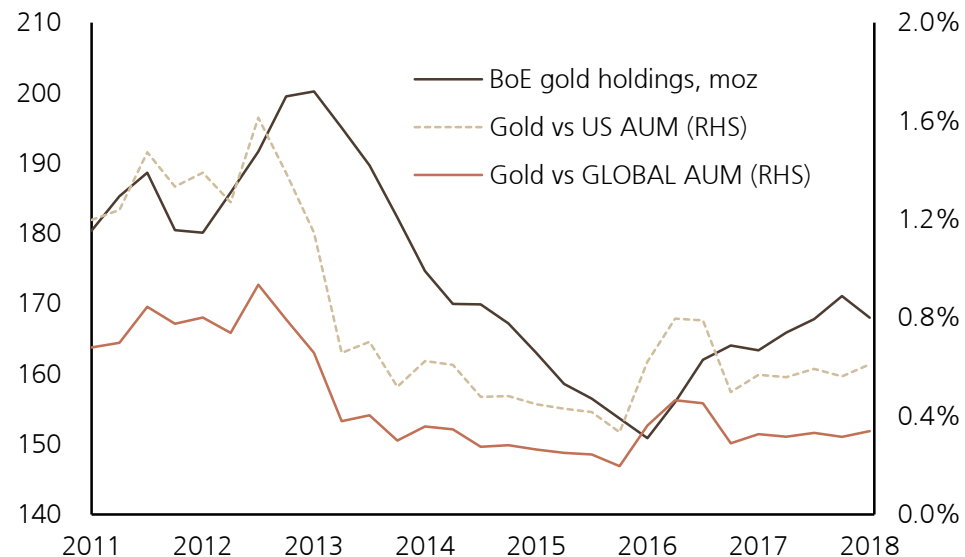


Gold positioning turned net short for the first time in 17 years

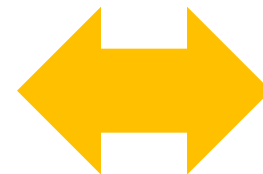


Broader positioning remains lean, allowing for growth in gold allocations

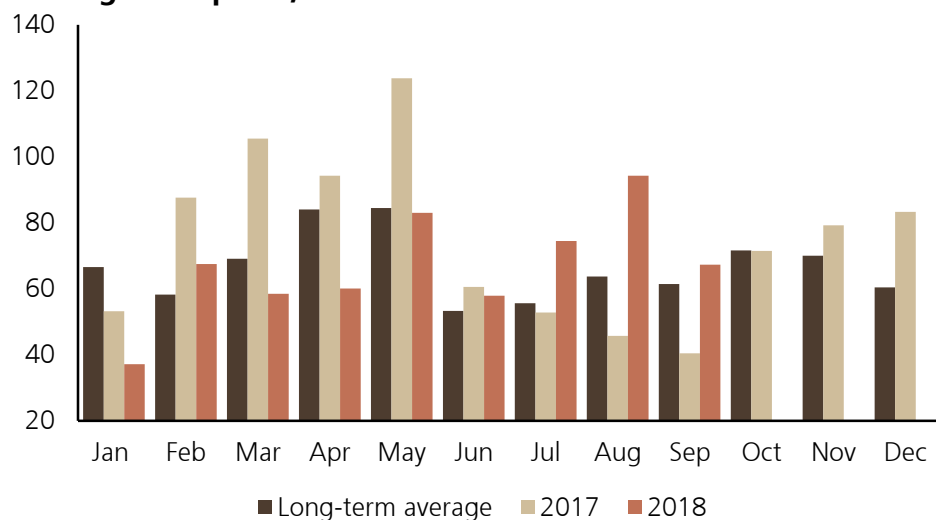
BOE gold holdings vs % of gold to US and global funds AUM



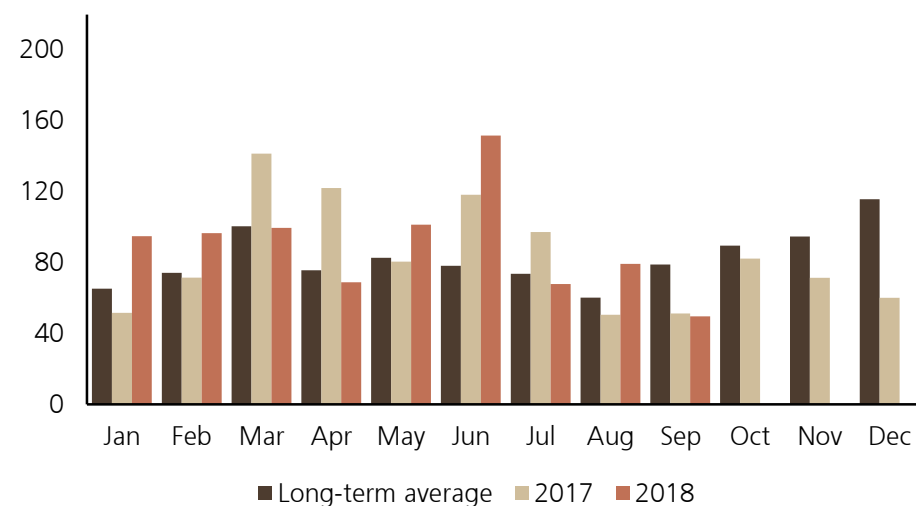
# Average physical demand...



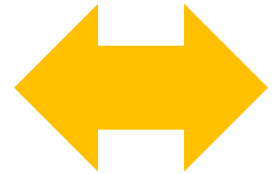
India gold imports, tonnes



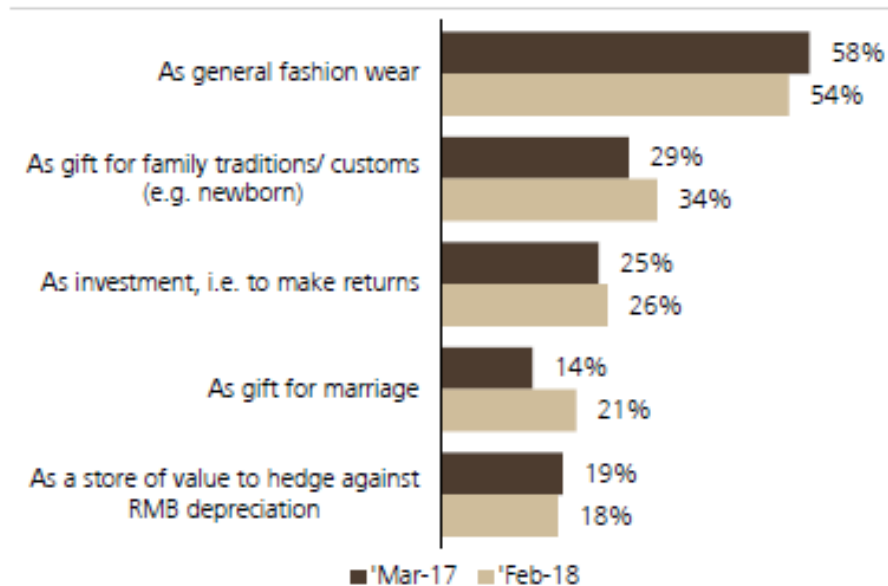
China gold imports from HK and Switzerland, tonnes



# ...but underlying drivers intact

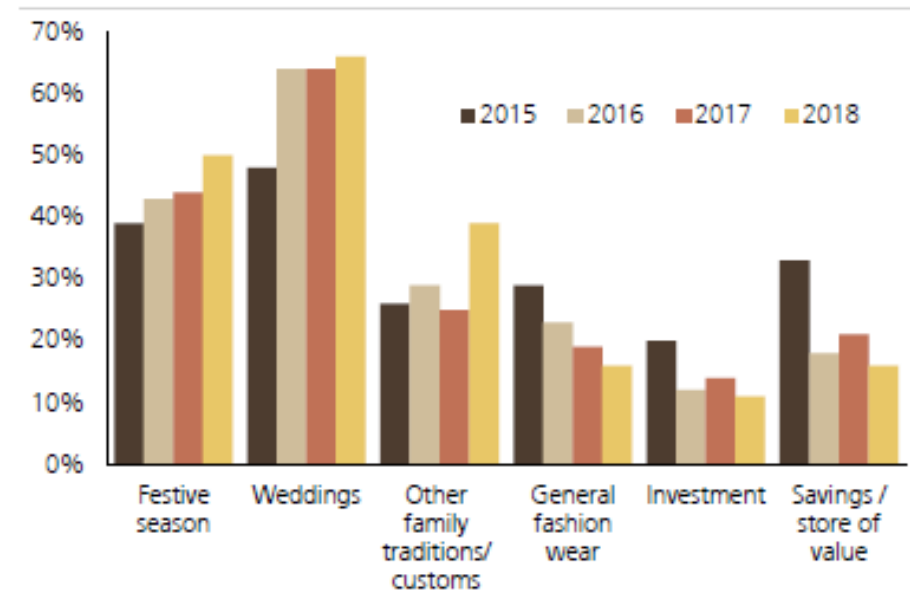


**China – main reasons for previous gold purchase**



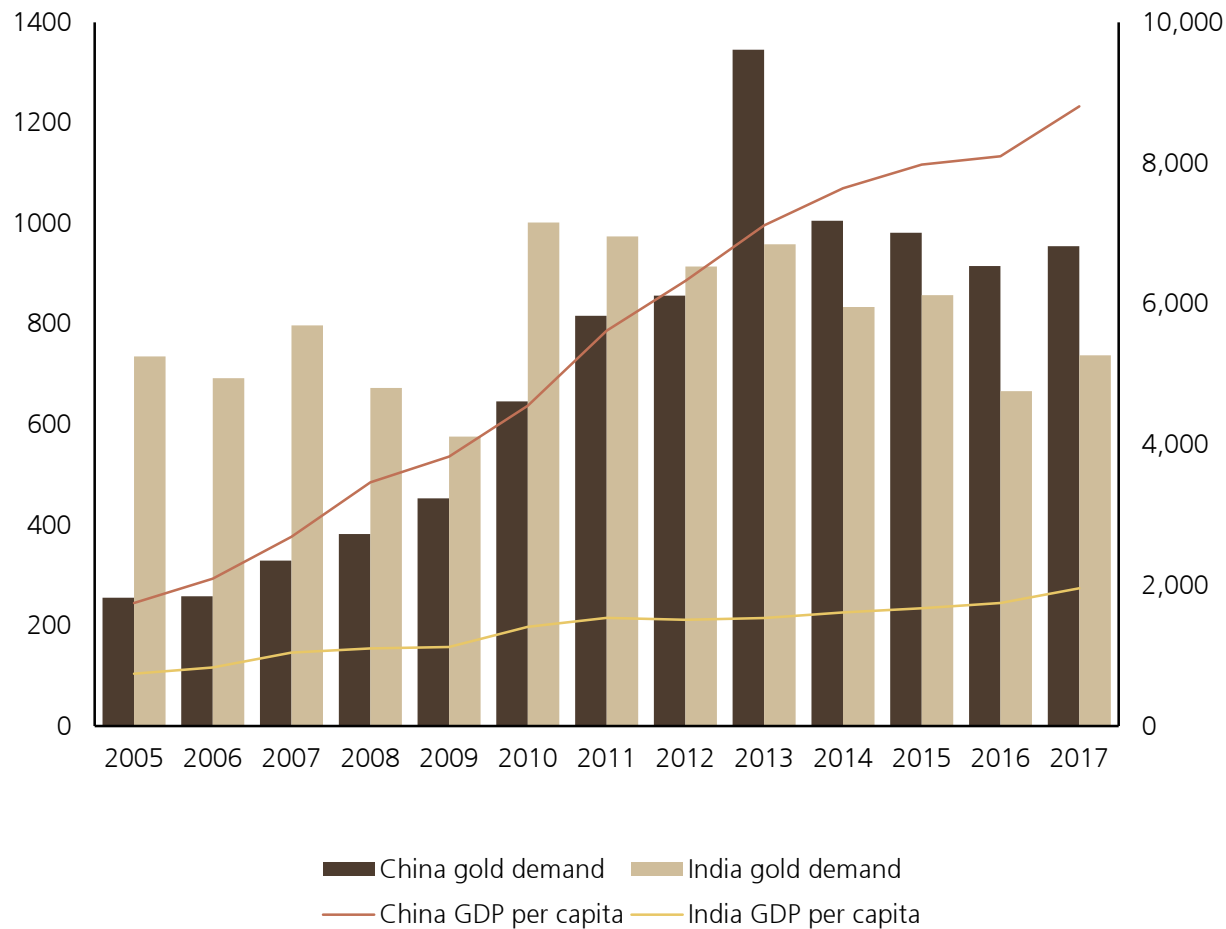
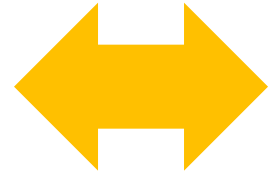
Source: UBS Evidence Lab

**India – main reasons for previous gold purchase**

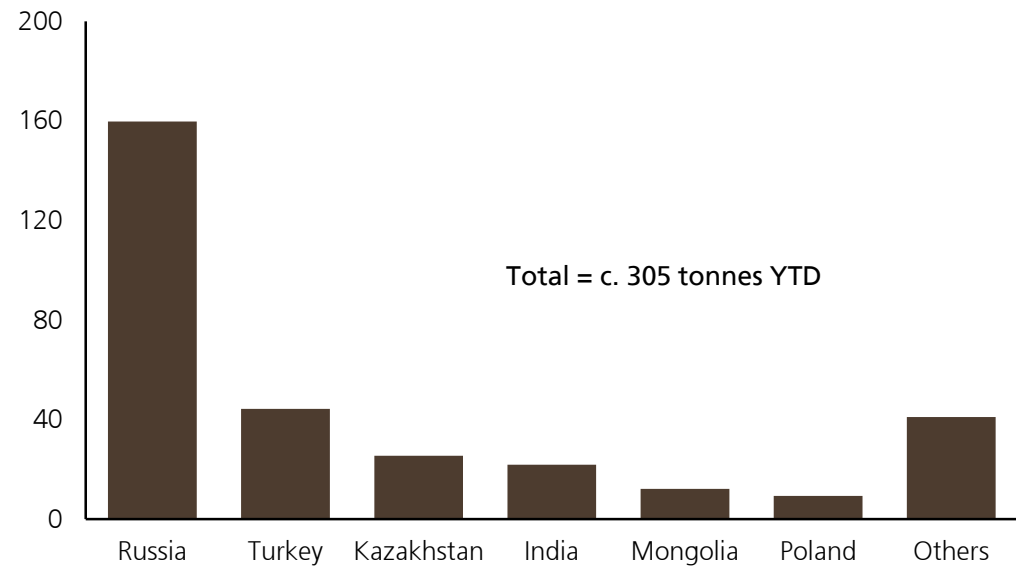
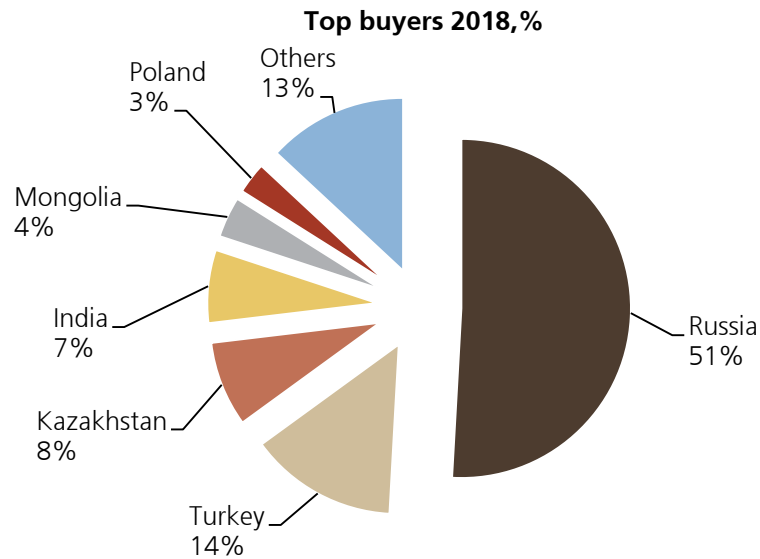


Source: UBS Evidence Lab

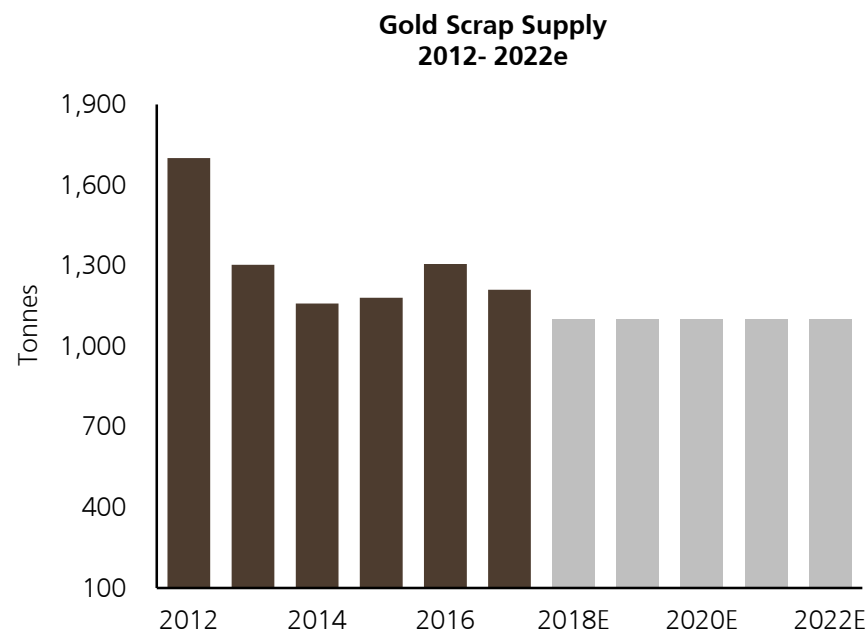
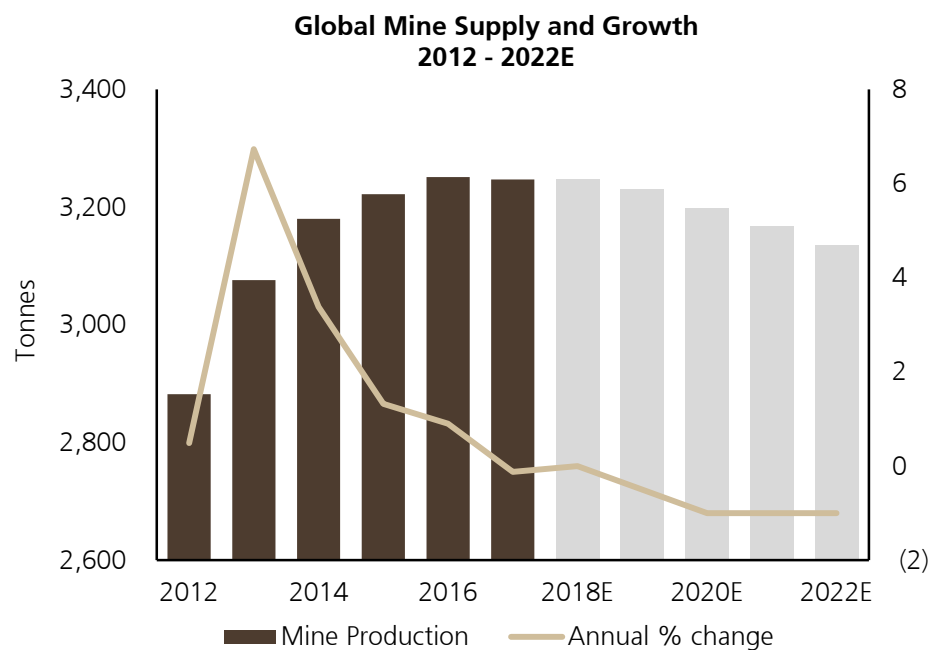
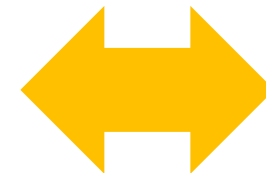
# EM GDP **growth** should help gold purchases



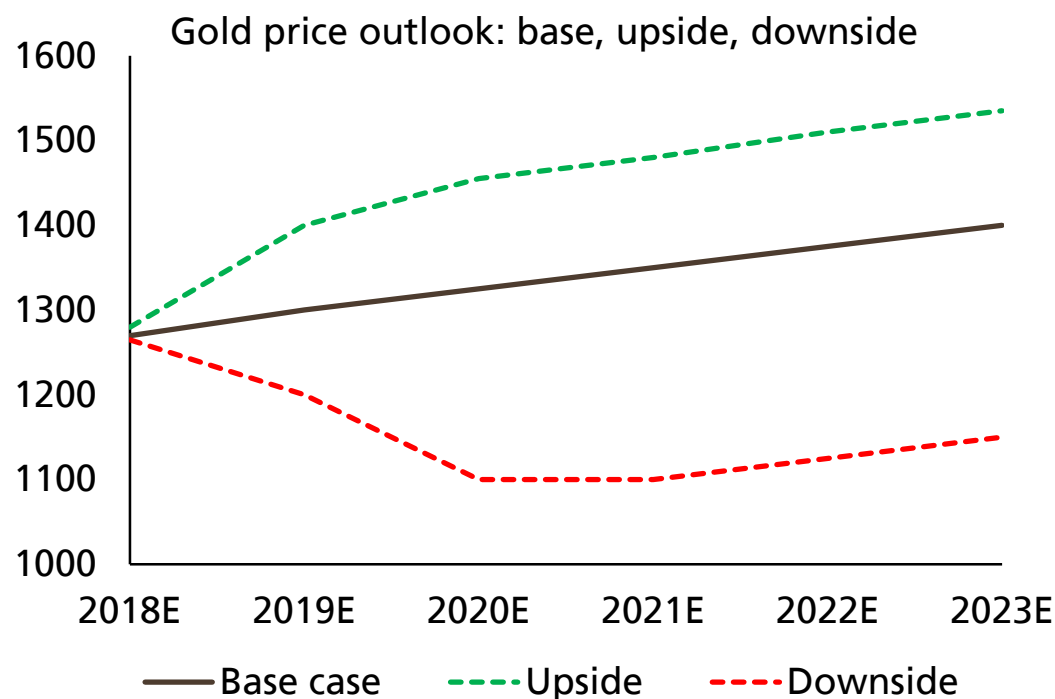
# Central bank buying surprises to the upside



# Supply to remain contained



# What we expect



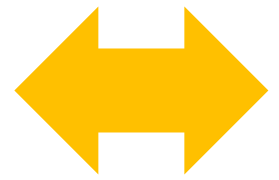
period	Old base case	New base case	New vs Old % chg	upside	downside
2019E	1320	1300	-2%	1400	1200
2020E	1350	1325	-2%	1455	1100
2021E	1370	1350	-1%	1480	1100
2022E	1400	1375	-2%	1510	1125
2023E	1466	1400	-5%	1535	1150
LT (real)	1300	1300	0%		

Source: UBS forecast



# We stay neutral

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UBS View:

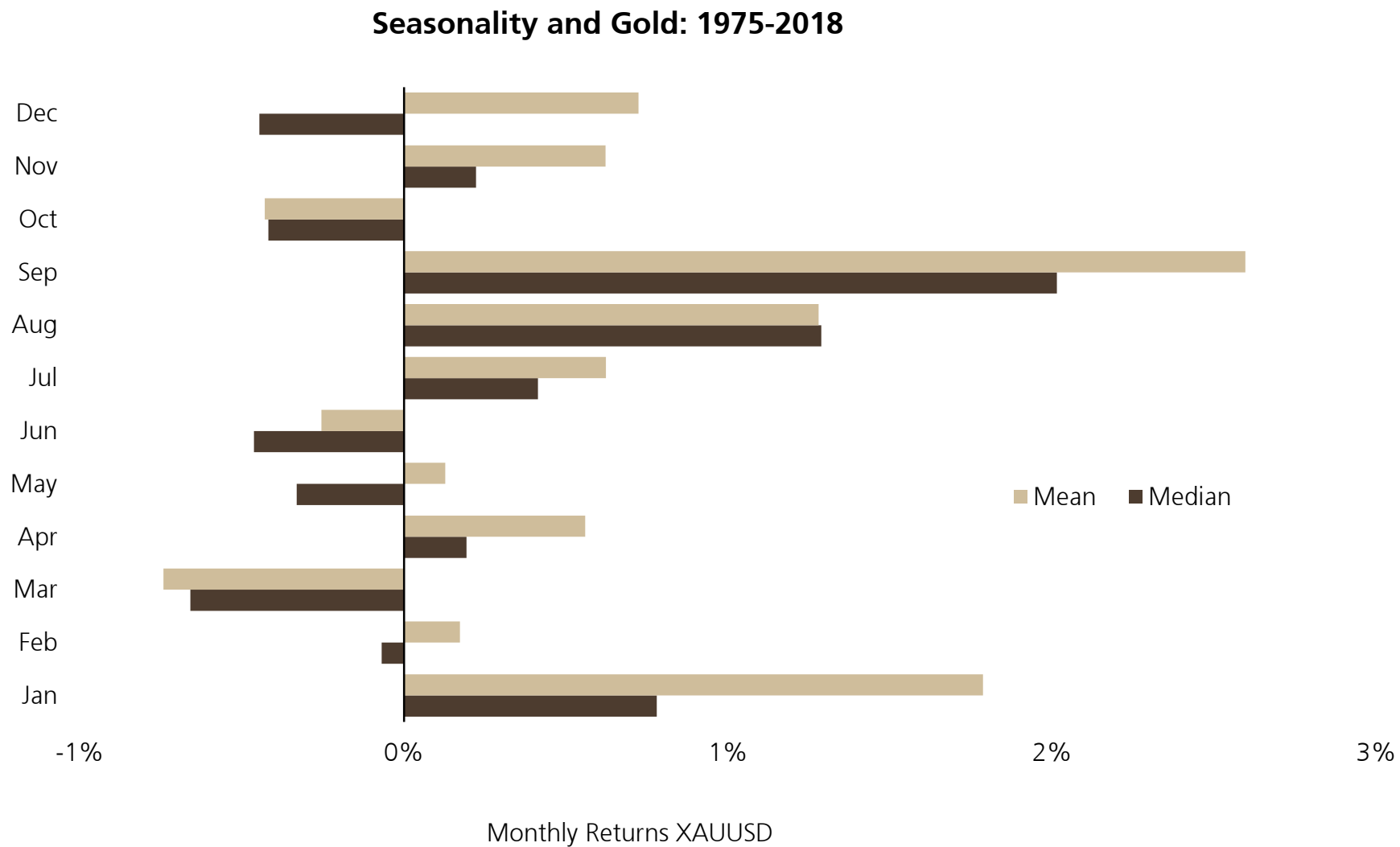
## **Supported...**

- Fed policy expectations well-priced, limited further upside in rates
- Scope for dollar weakness from here
- Lingering uncertainty
- Lean positioning

## **...yet capped**

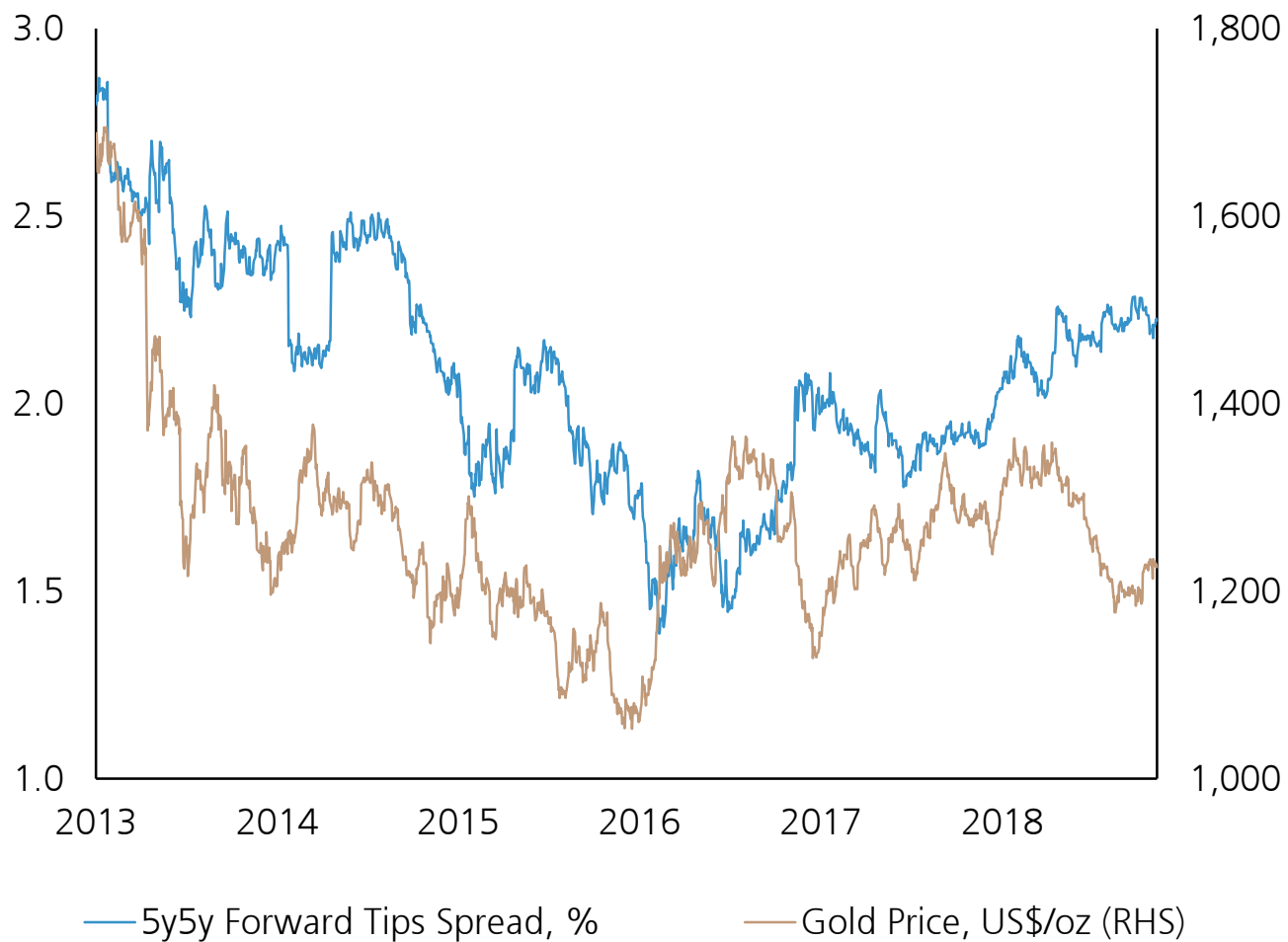
- Continued gains in equities; limited concern about systemic risk
- Dollar's safe-haven status
- Low probability of recession

# What we are watching: seasonality



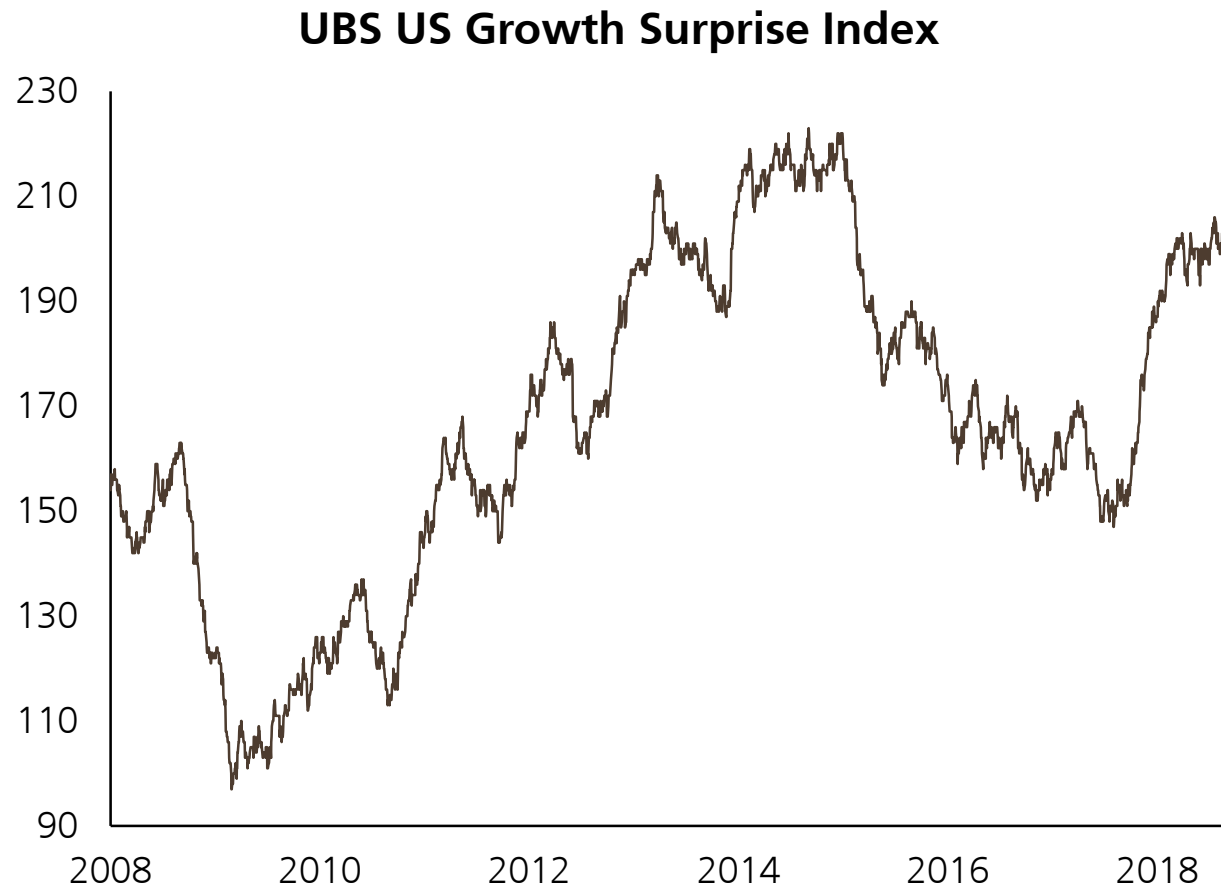
# What we are watching: inflation

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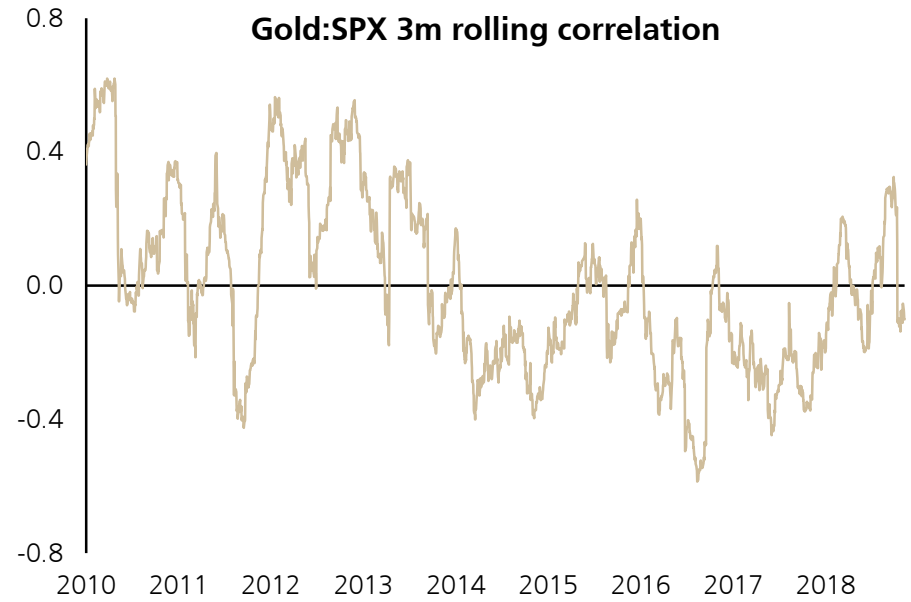
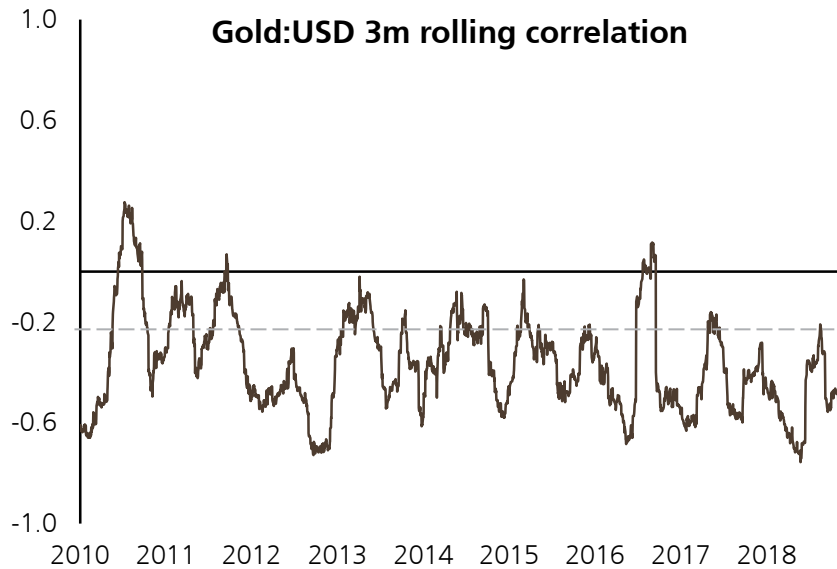


# What we are watching: growth

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# What we are watching: correlations

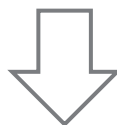


# Where is the **balance** of risks for gold?

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## **Downside:**

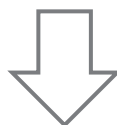
Growth acceleration, faster policy normalisation, dollar strength



Sustained rise in real rates, equity markets continue to rally, diminished demand for hedge/safe haven like gold

## **Upside:**

High inflation, perceived policy misstep, escalation in geopolitical tensions



Patchy growth and risks of recession, higher risk aversion, real rates compress, tighter financial conditions, equity market correction, increased demand for hedge/safe haven like gold

## Section 2

# Silver

*"Too many people miss the silver lining because they're expecting gold."*

*-Maurice Setters, English former football player and manager*

# Silver underperformance extends

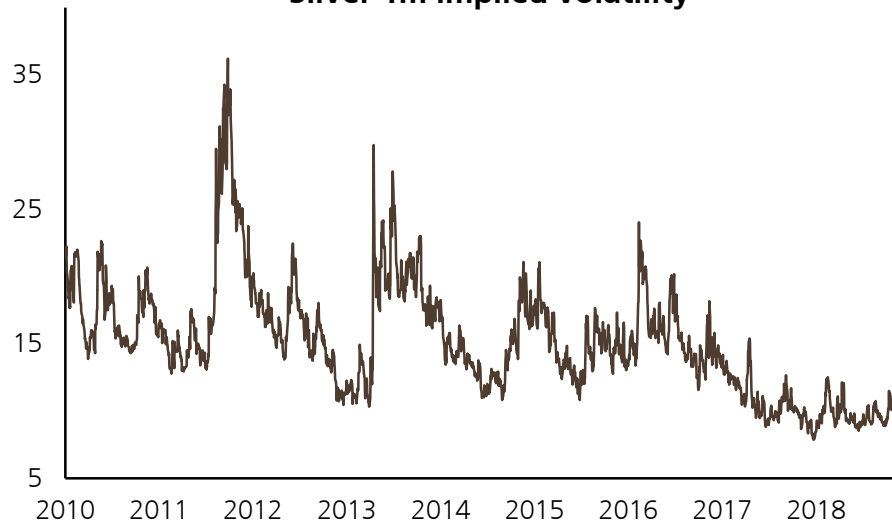
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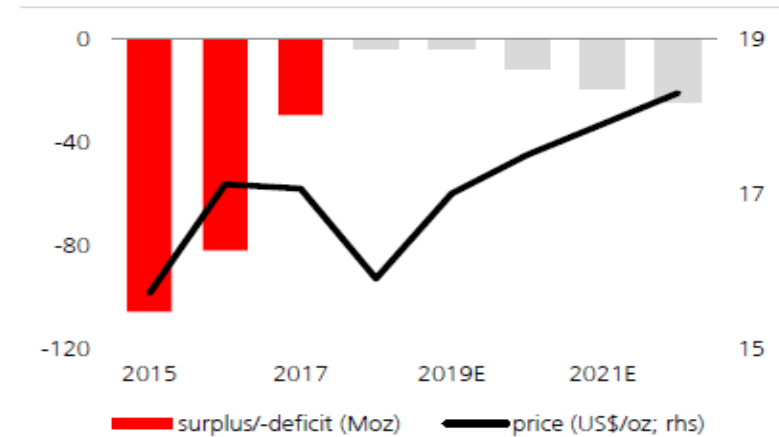


# Silver needs a few things to **revive** interest

Silver 1m implied volatility

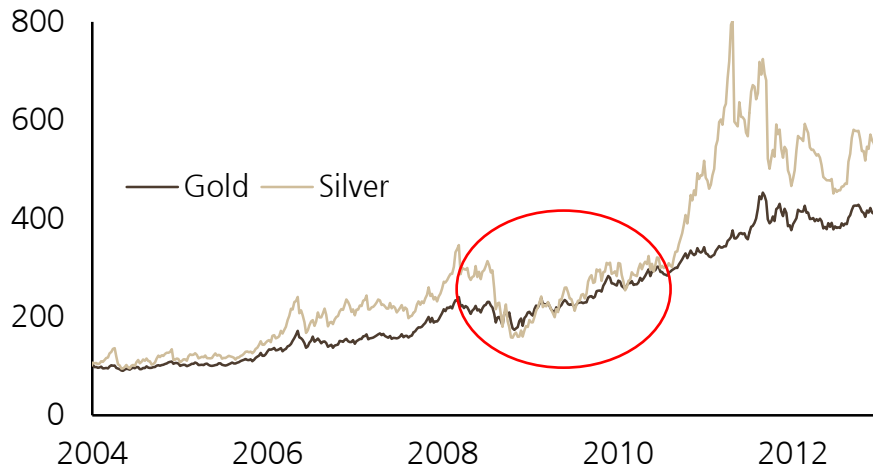


Price & supply/demand balance

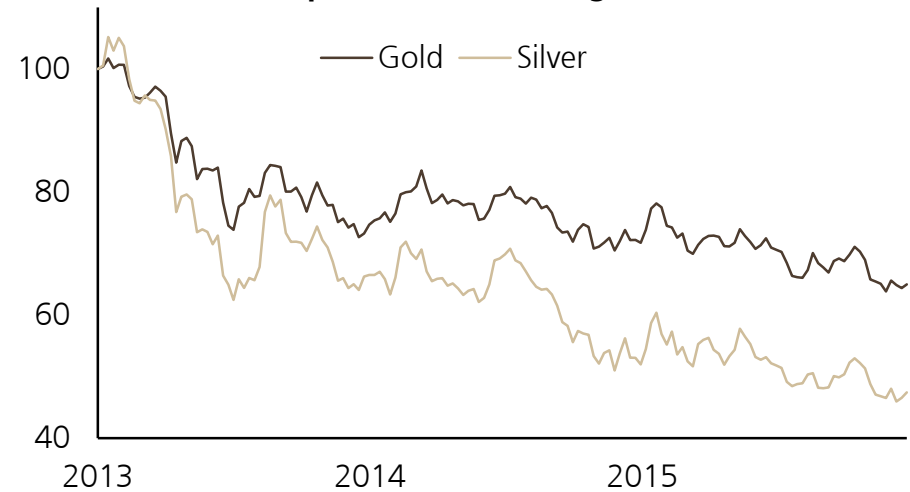


Source: Thomson Reuters GFMS, Silver Institute, UBS

Gold & silver performance during bull market

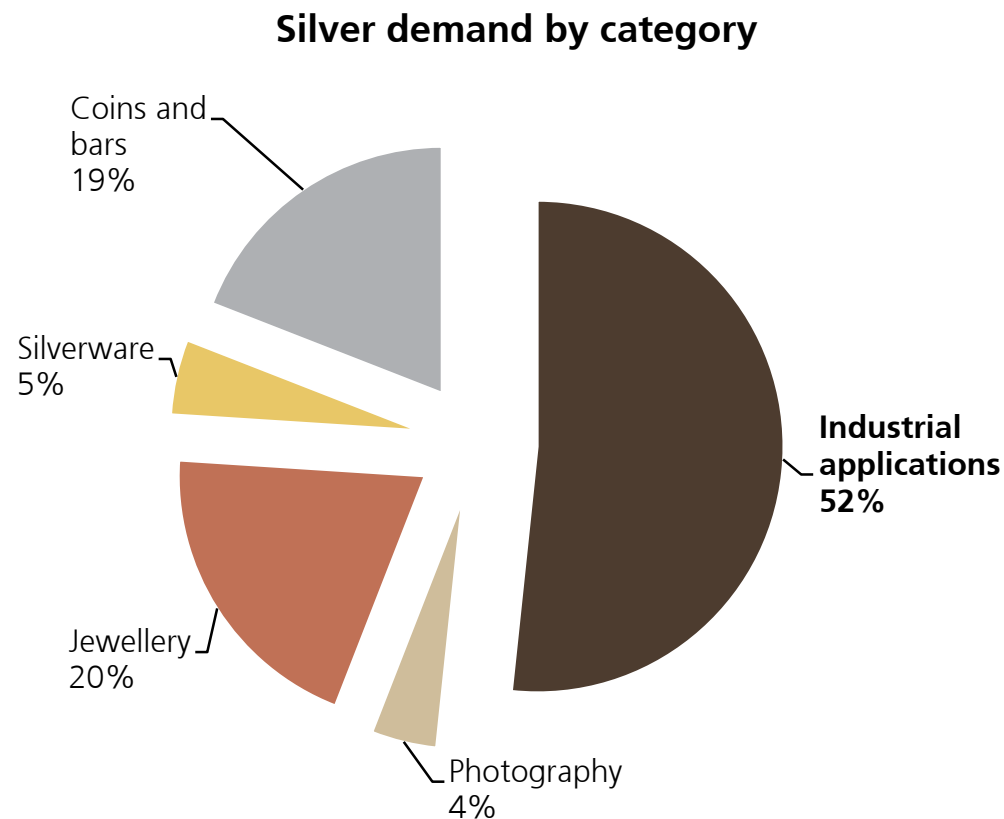


Gold & silver performance during bear market



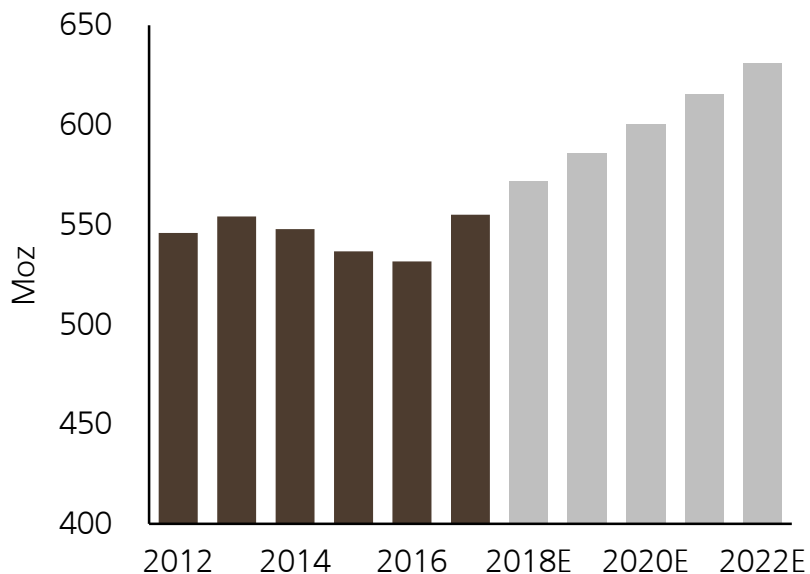
# Silver as a **commodity** looks okay for now

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# Economic growth should support demand...

**Silver Industrial Demand**

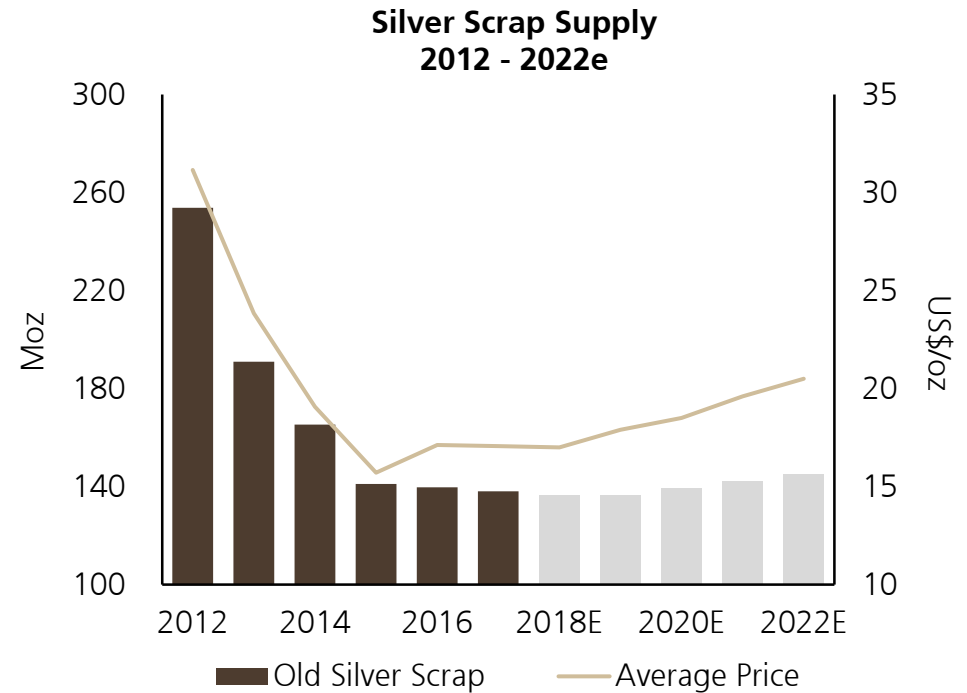
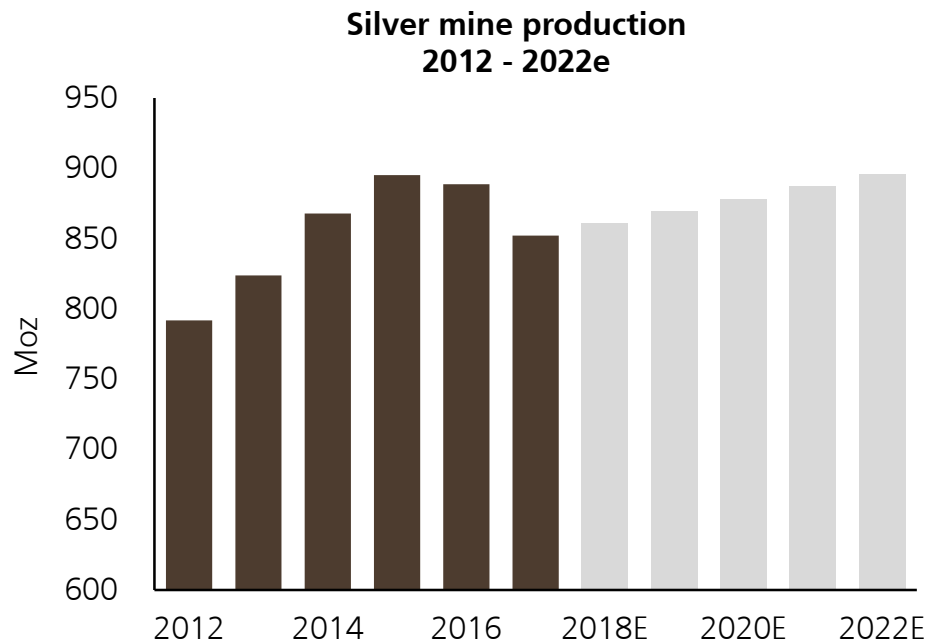


- Fundamentals don't look too bad, but downside risks are growing

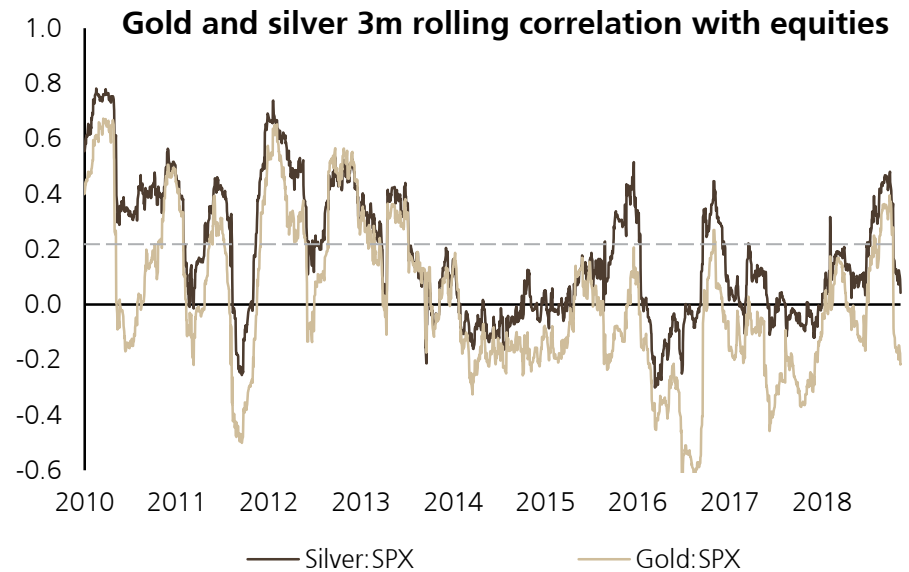
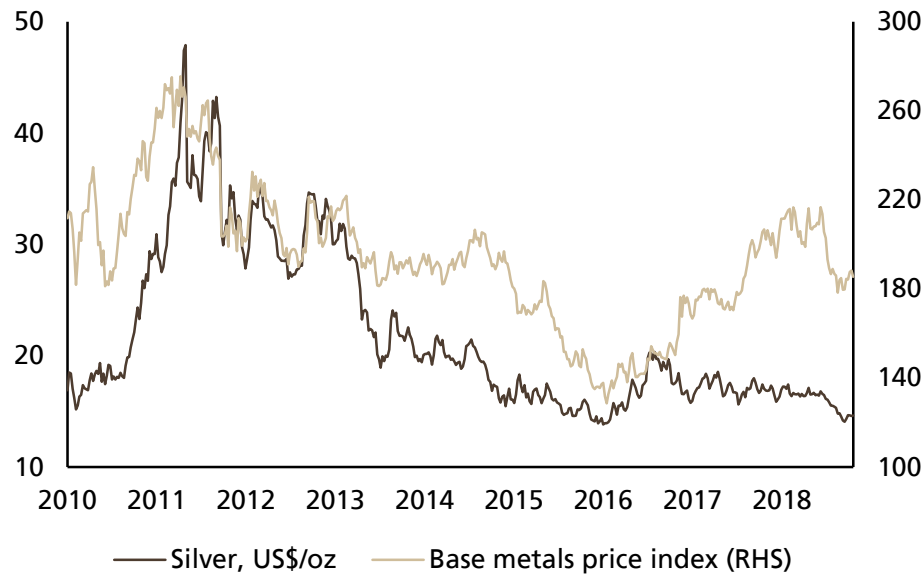
**Metal conductivities**

	Electrical conductivity (10.E6 Siemens/m)	Electrical conductivity relative to silver	Thermal conductivity (W/m.k)	Thermal conductivity relative to silver	Density (g/cm3)	Melting point or degradation (°C)
Silver	62.1	100%	420	100%	10.5	961
Copper	58.5	94%	401	95%	8.9	1083
Gold	44.2	71%	317	75%	19.4	1064
Aluminium	36.9	59%	237	56%	2.7	660

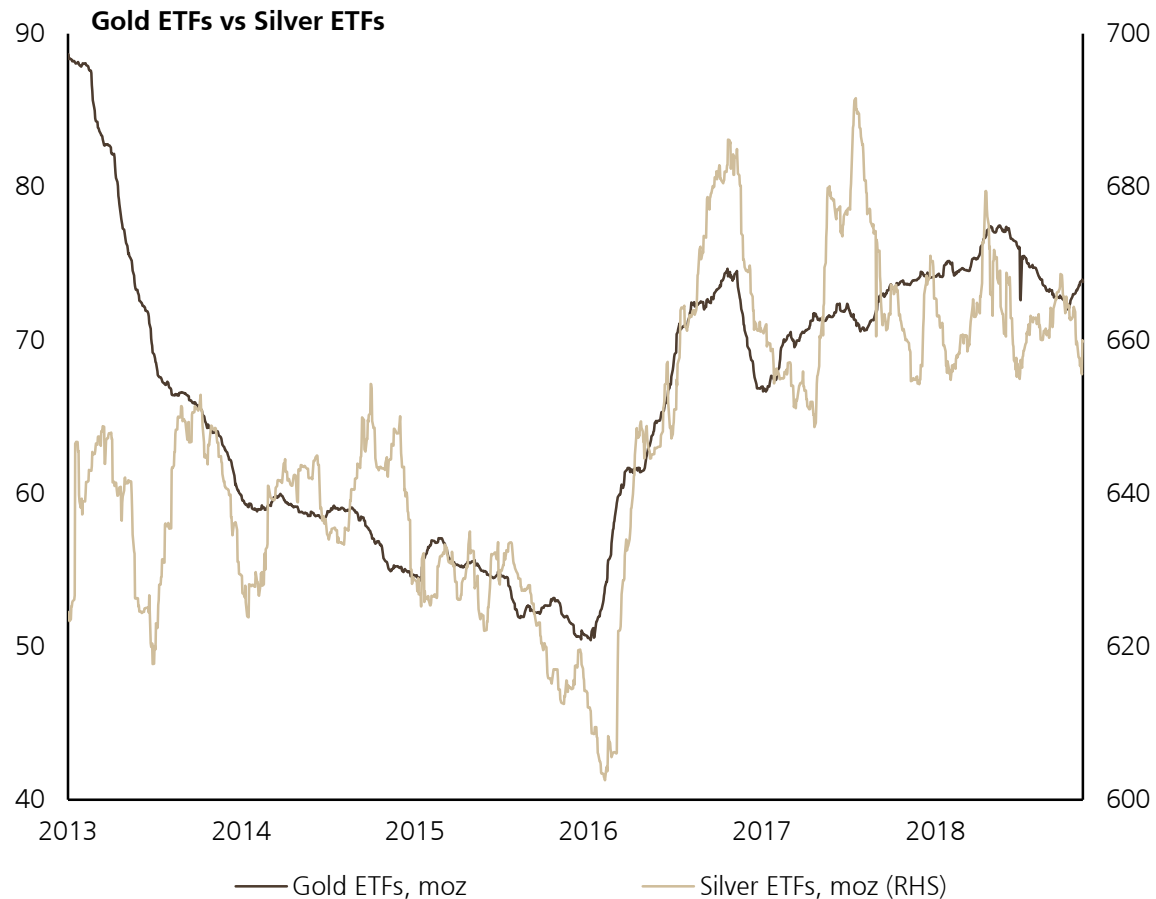
...while **supply** is likely to be unremarkable



# Silver as an **asset** has been an underdog



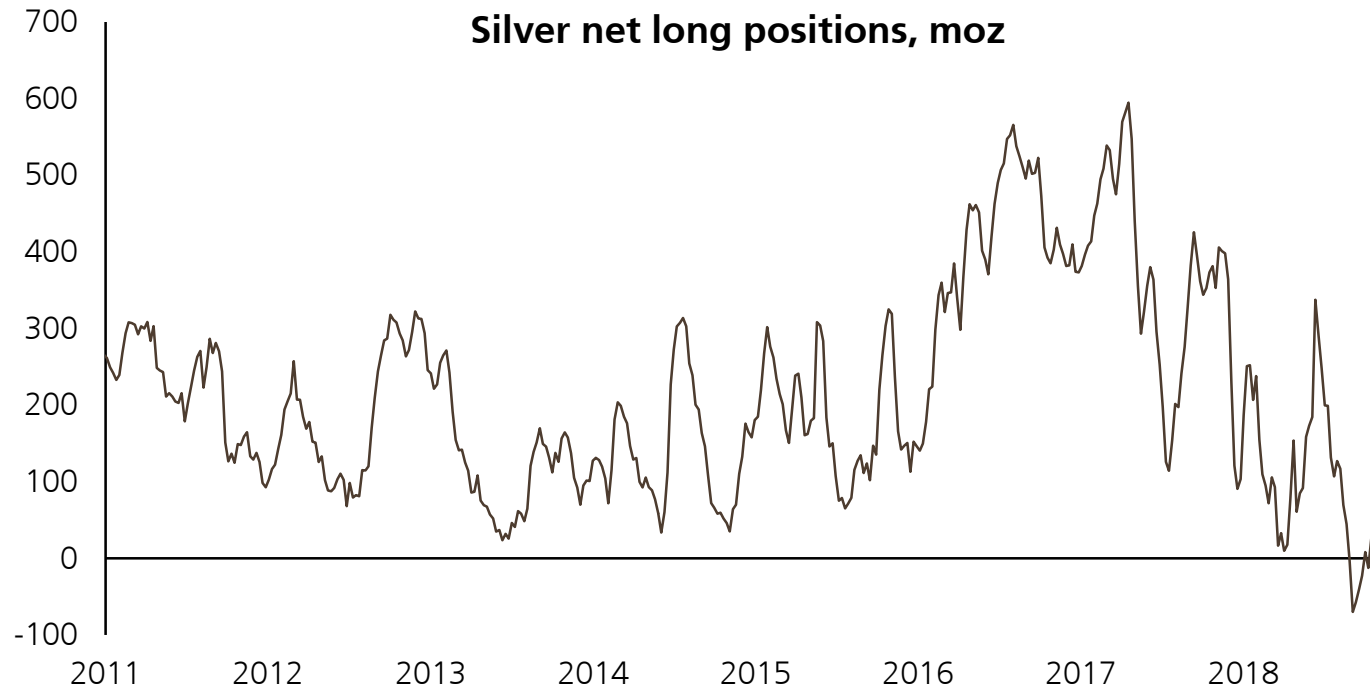
# Silver ETFs have generally been resilient...



- ETFs have generally been resilient in the past several years despite large outflows in gold
- Large proportion of retail holders

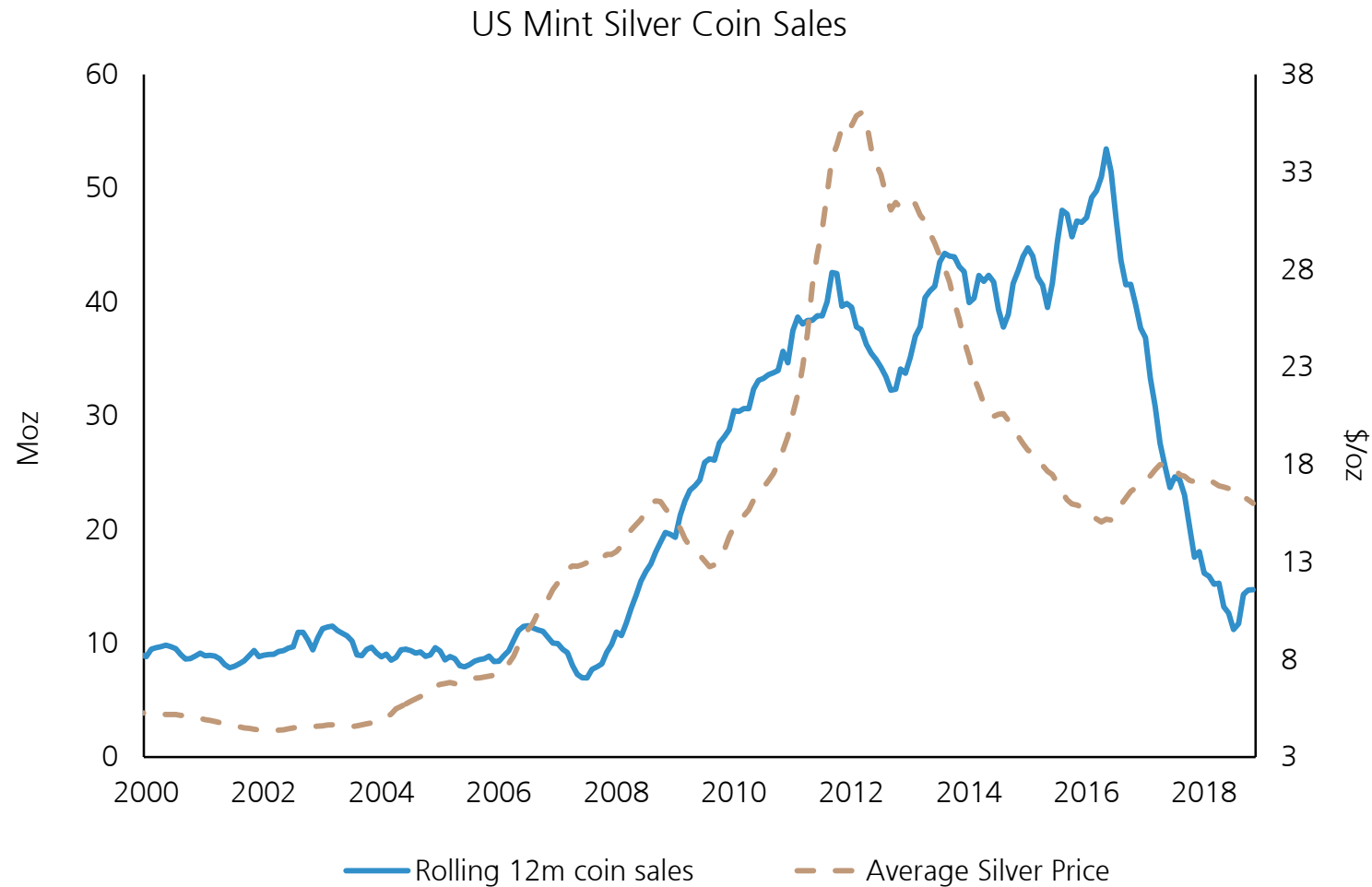
...but Comex **positioning** has been under pressure

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- Silver not viewed as a strategic or safe haven asset like gold, instead tends to attract speculative interest
- Silver shorts are similarly at record highs

# US **retail** silver demand has fallen sharply

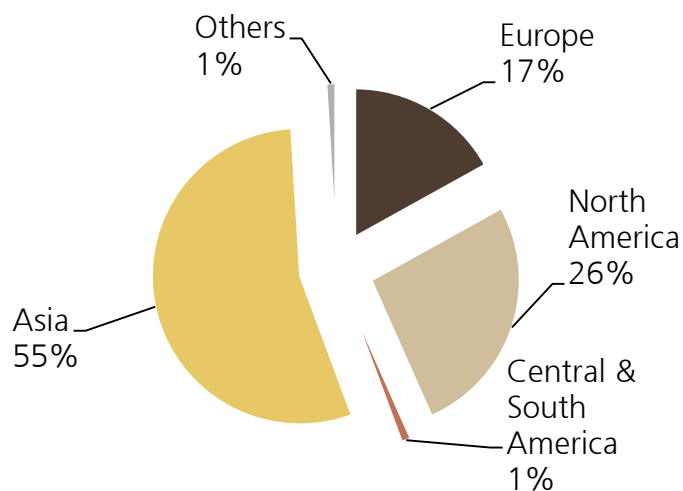




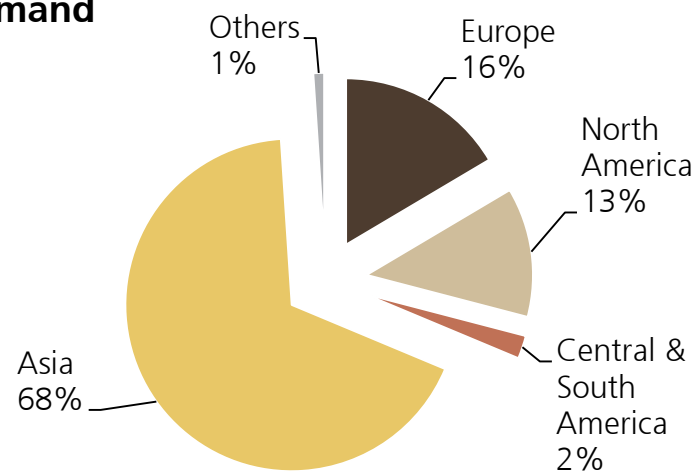
# Watch developments in Asia...

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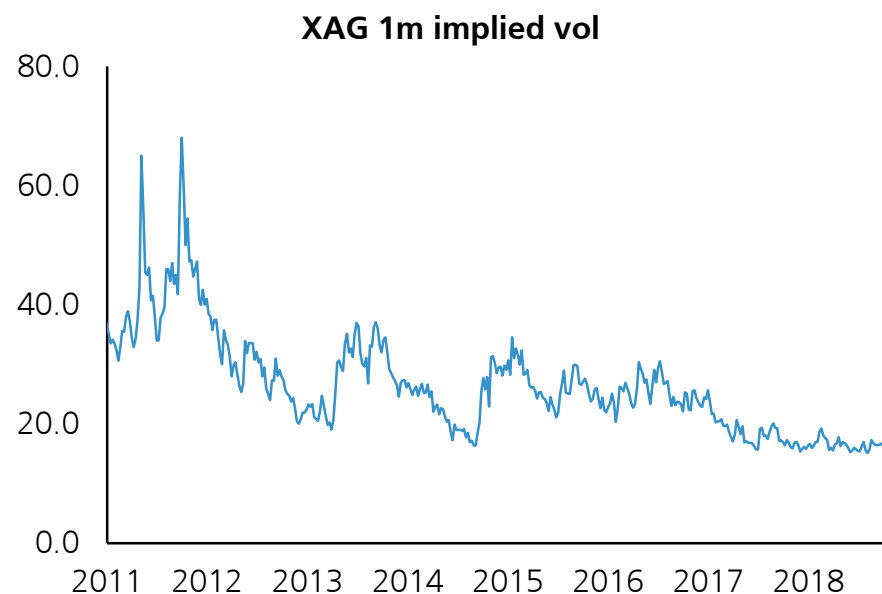
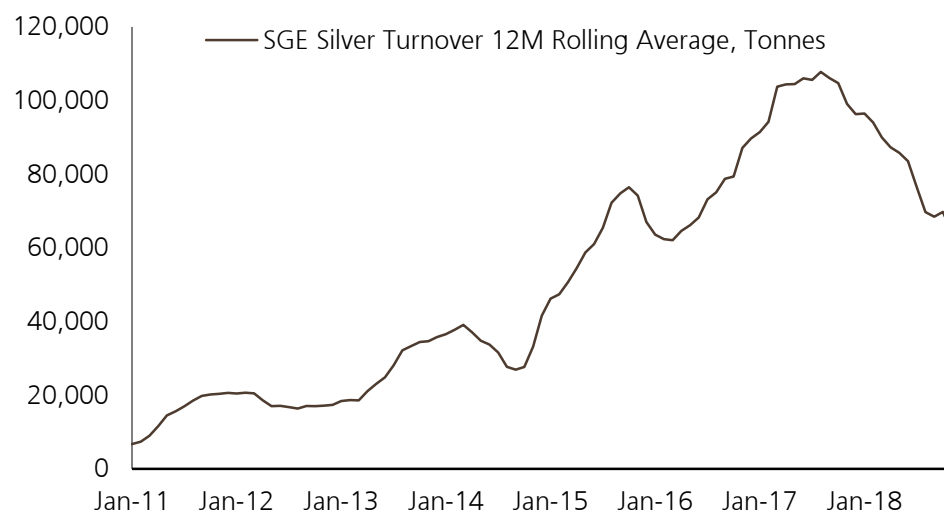
**Silver industrial fabrication demand**



**Silver jewellery & silverware fabrication demand**

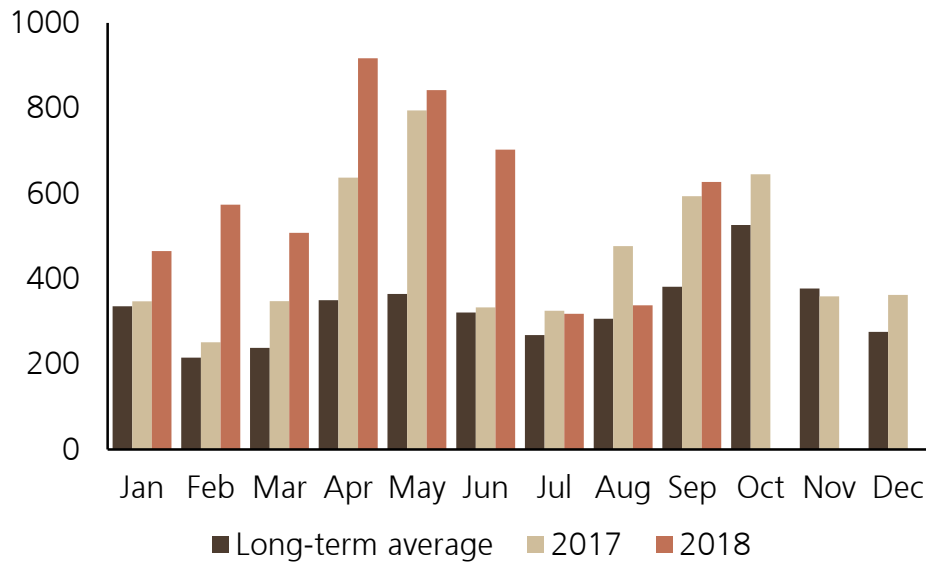


# China: silver **trading** volumes have come off

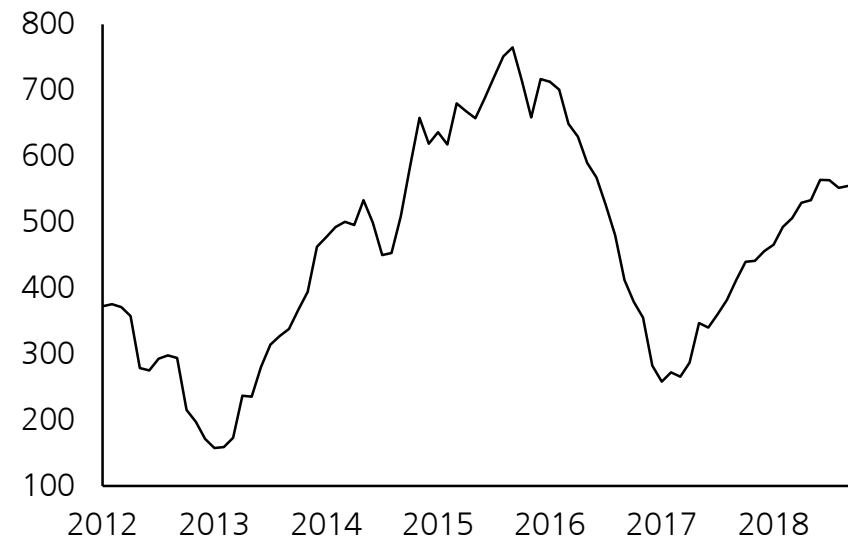


# India: silver **imports** have paused

India monthly silver imports, tonnes

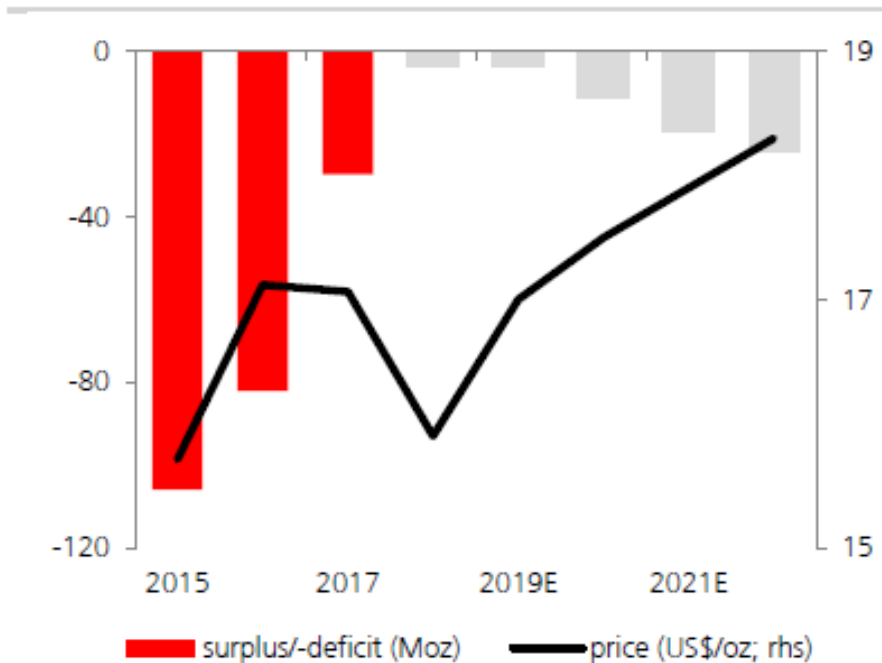


India silver imports 12m avg 2012-2018, tonnes



# What we expect

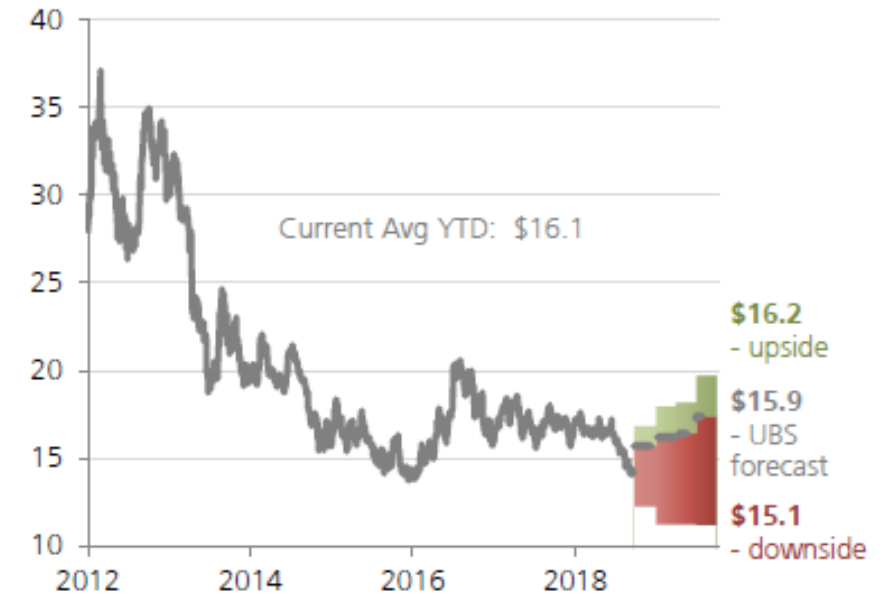
Price & supply/demand balance



Source: Thomson Reuters GFMS, Silver Institute, UBS

Upside/downside, 2018E (US\$/oz)

XAG/USD



Source: Bloomberg, UBS

## Section 3

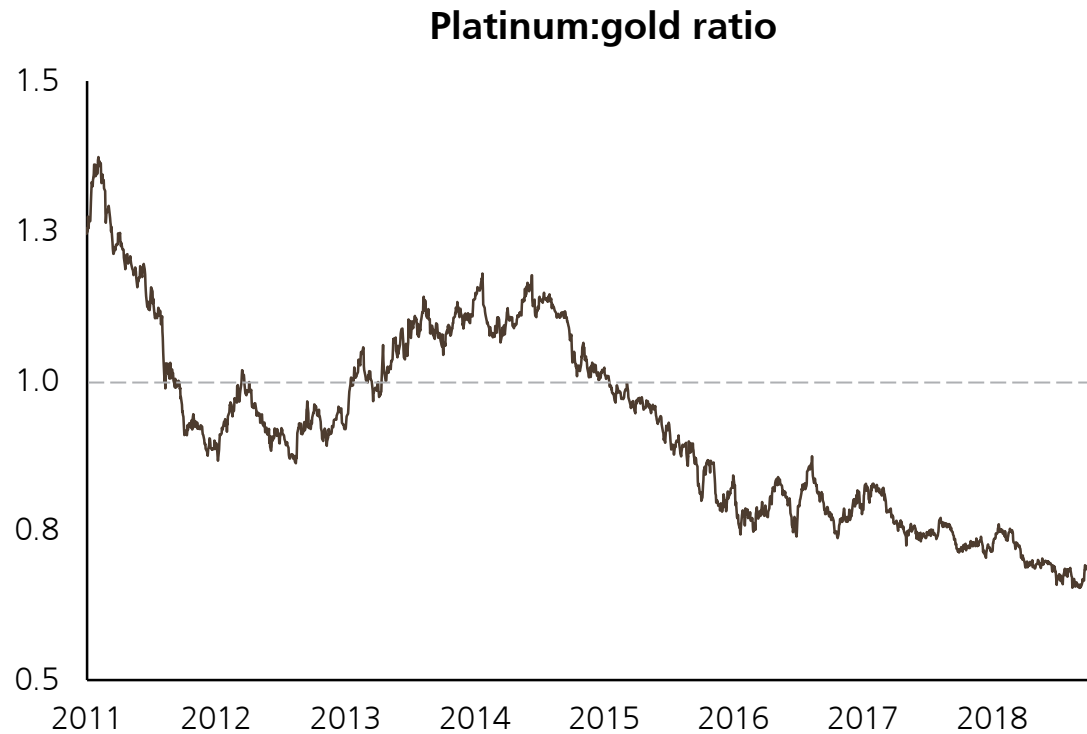
# Platinum and palladium

*"All I know is gold and platinum, and I want to be platinum."*

– The Notorious B.I.G./Biggie Smalls, American rapper

# Platinum discount deepens vs gold...

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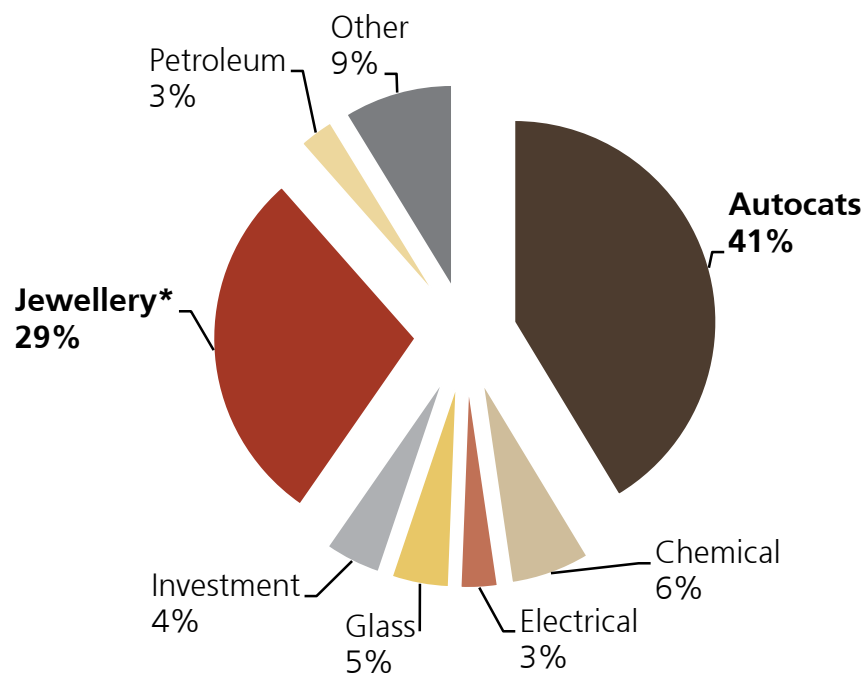
## ...and vs palladium

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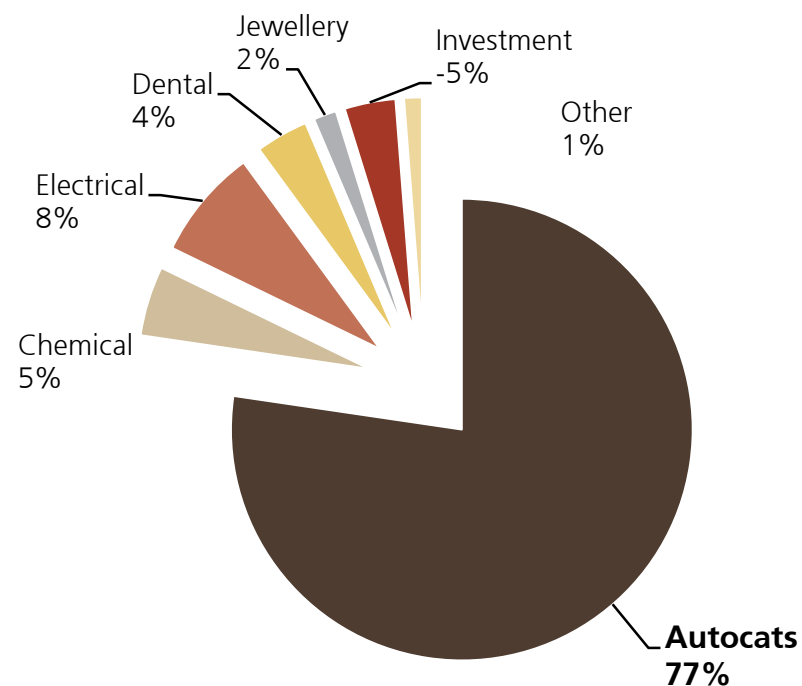


# PGM **demand** components: putting things in context

**Platinum demand breakdown**



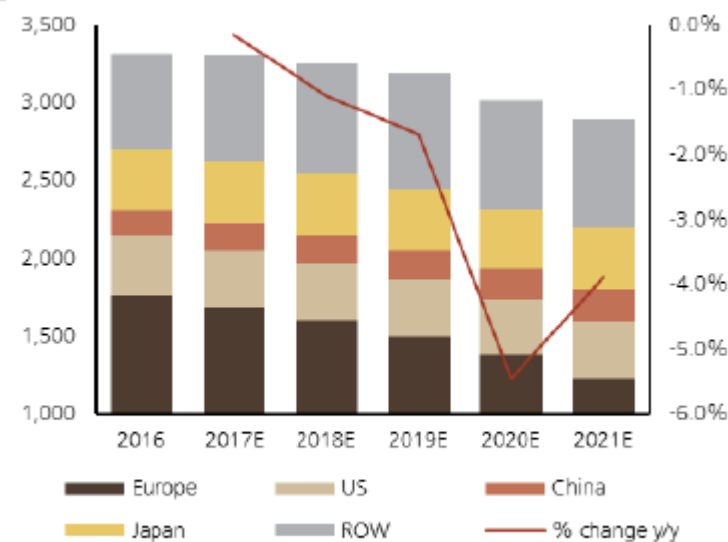
**Palladium demand breakdown**





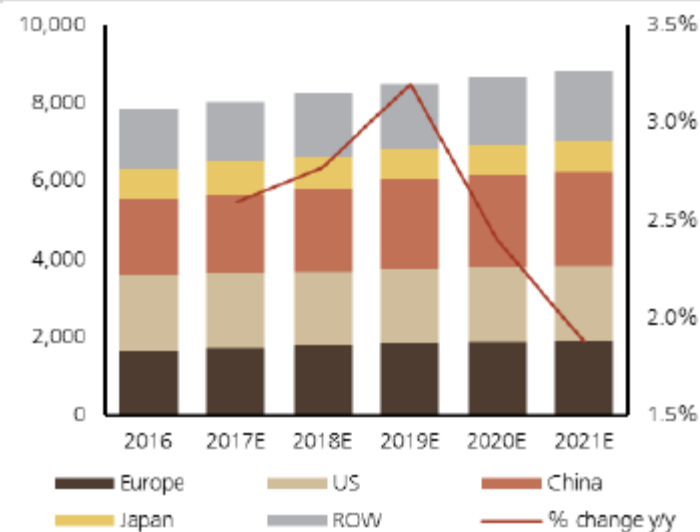
# Automotive demand trends drive divergence

Platinum auto demand, koz



Source: Johnson Matthey, UBS estimates

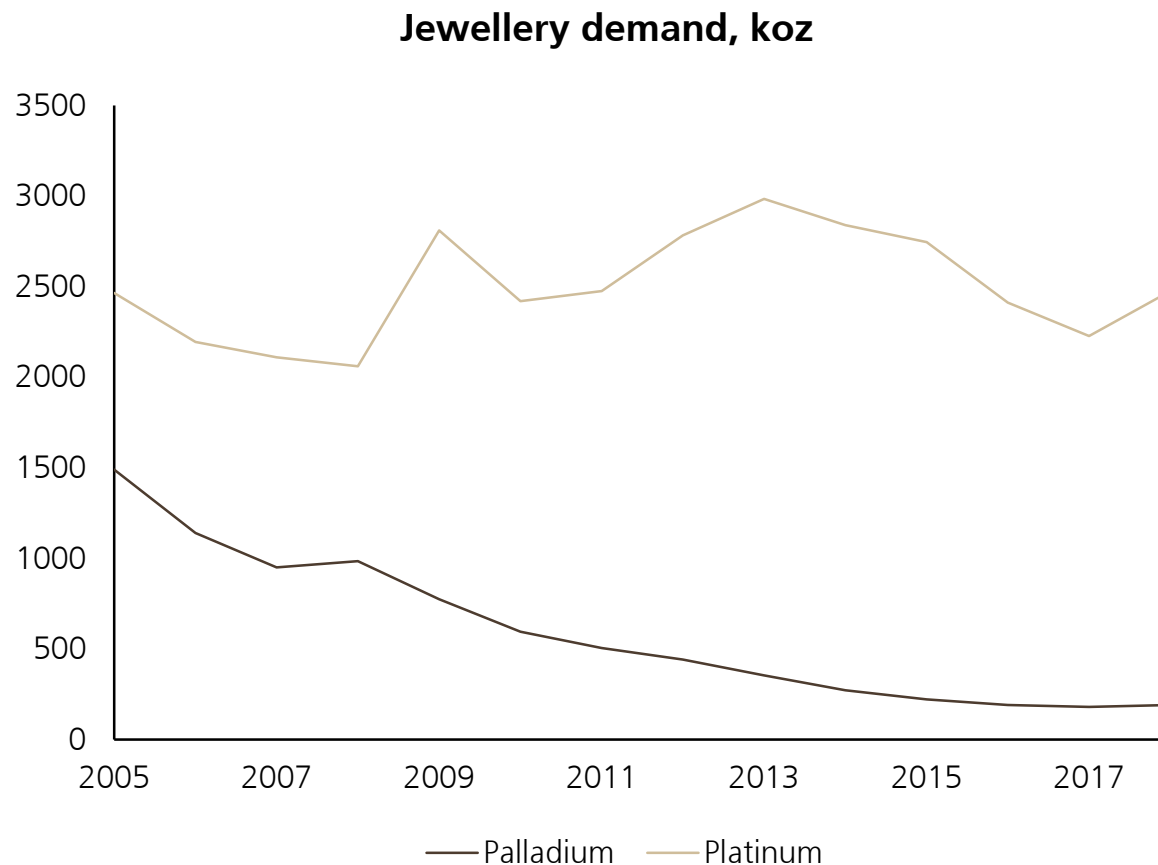
Palladium auto demand, koz



Source: Johnson Matthey, UBS estimates

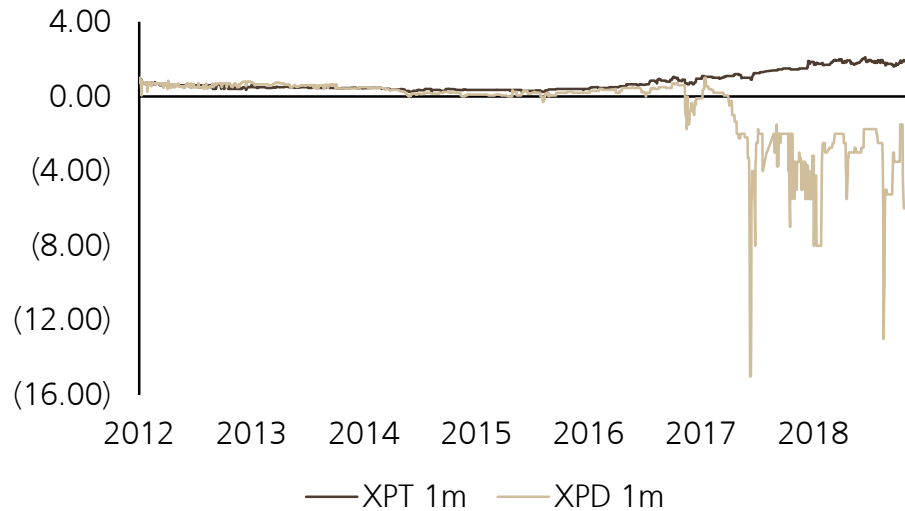
# Pt jewellery demand offers little support for now

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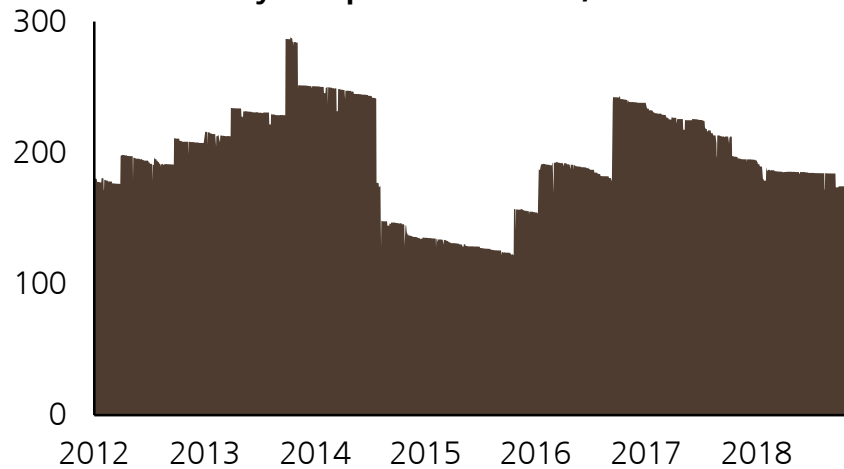


# Signs of market **tightness** in Pd, but not Pt

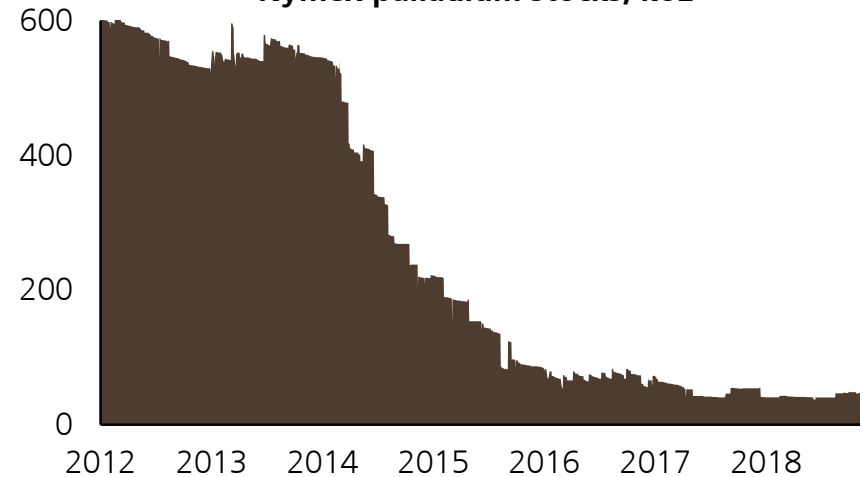
Platinum and palladium 1m forward swap rate



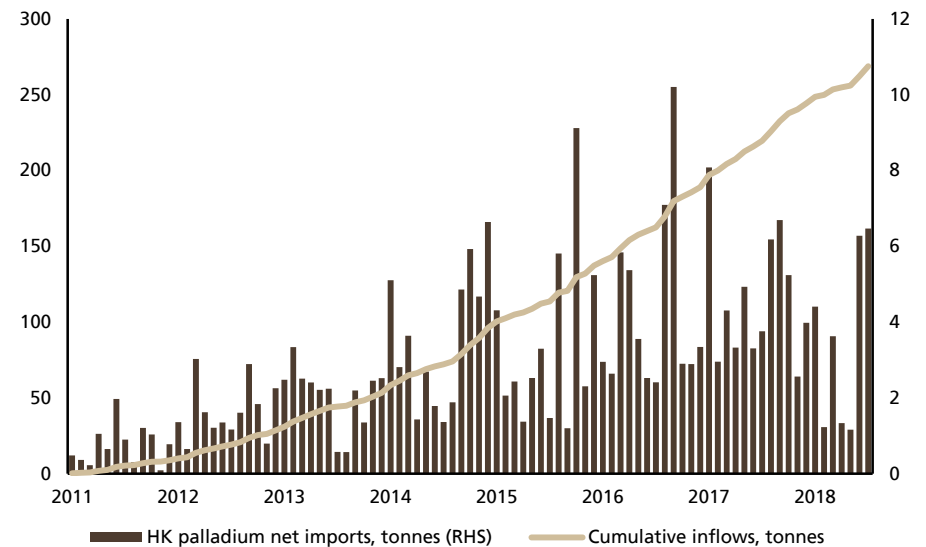
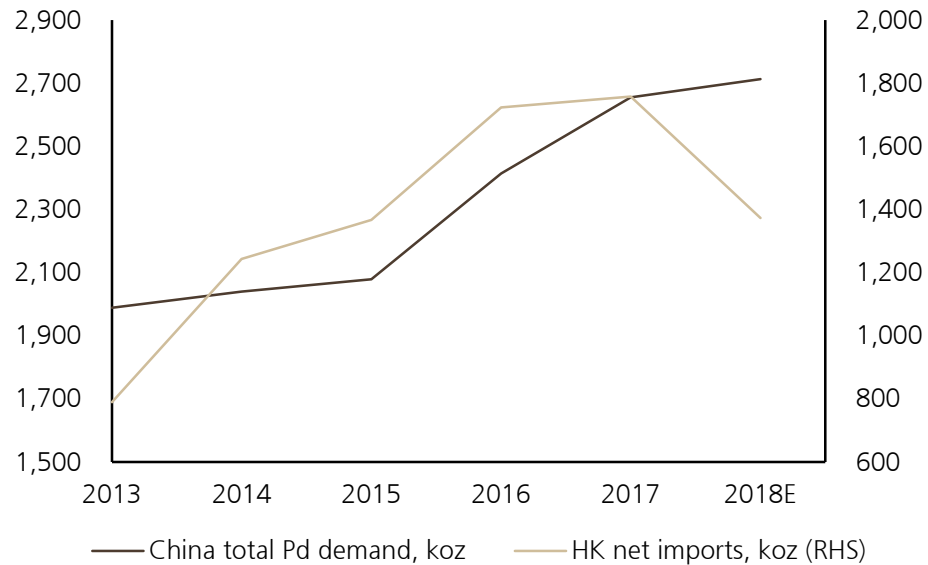
Nymex platinum stocks, koz



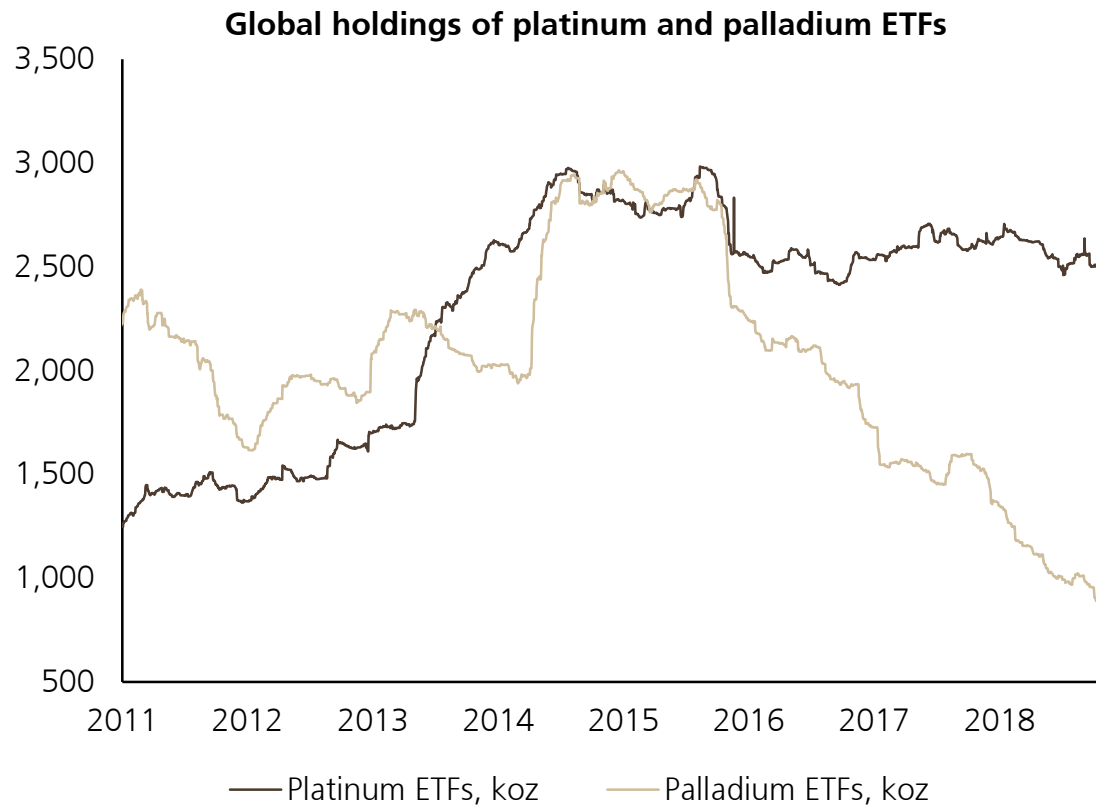
Nymex palladium stocks, koz



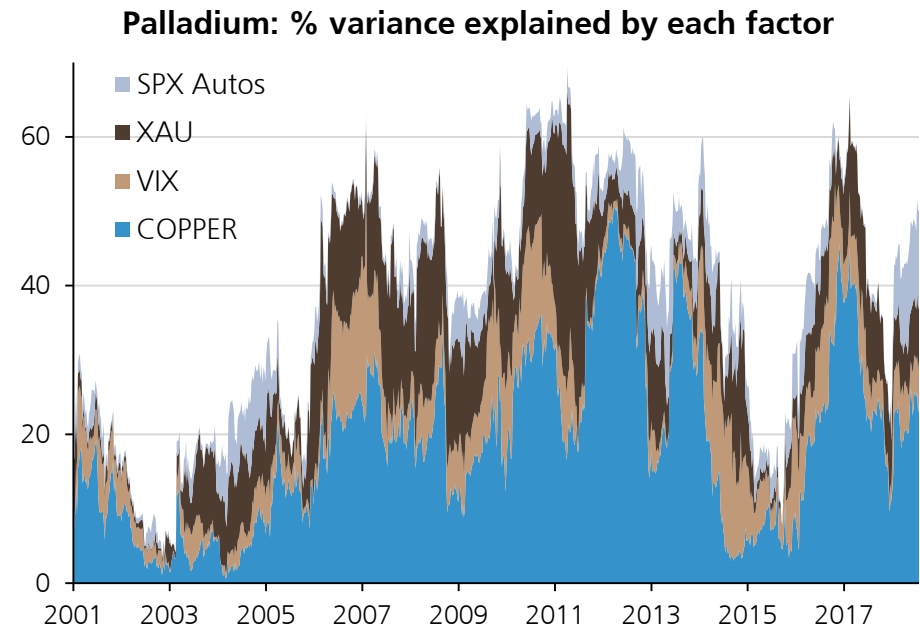
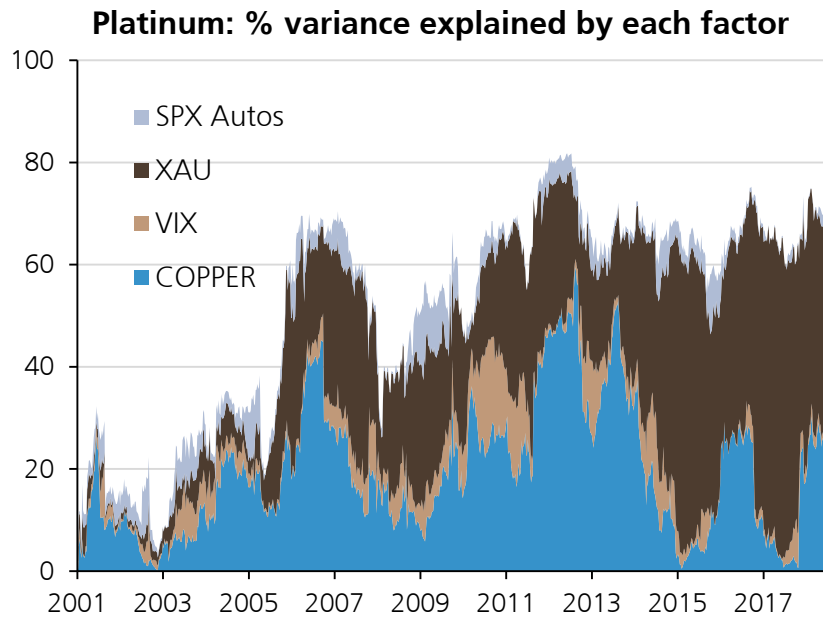
# HK Pd imports, a proxy for growing Chinese demand



# ETF flows are counterintuitive, or are they?

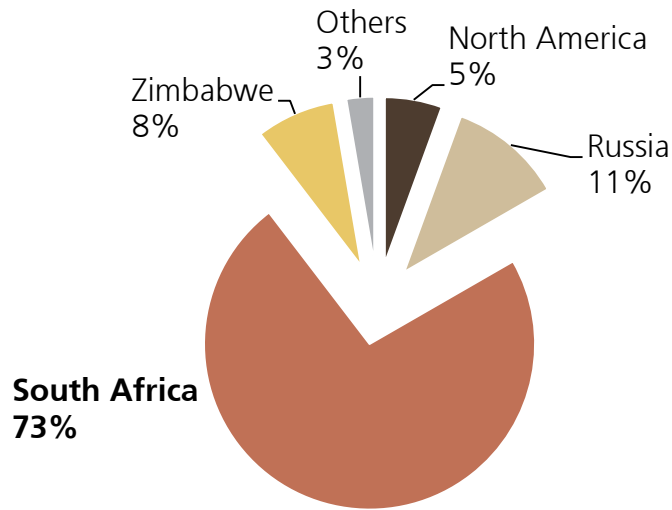


# Other **factors** can affect short-term price action

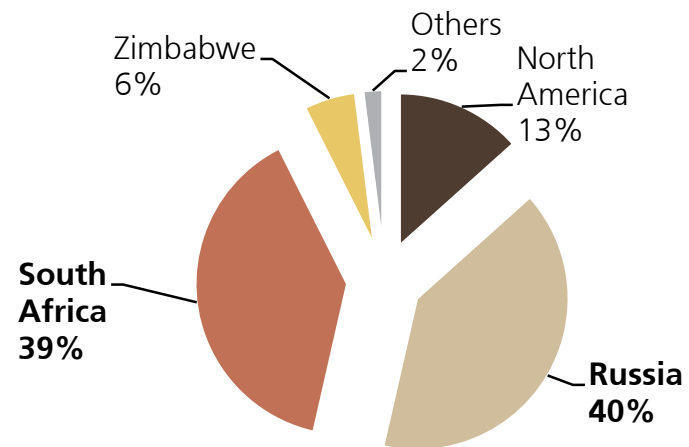


# PGM **supply**: watch risks from South Africa

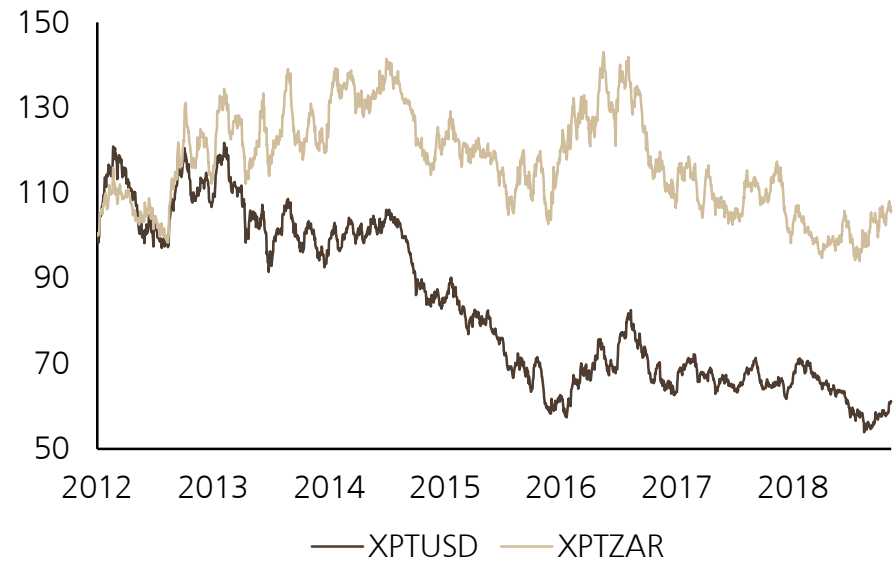
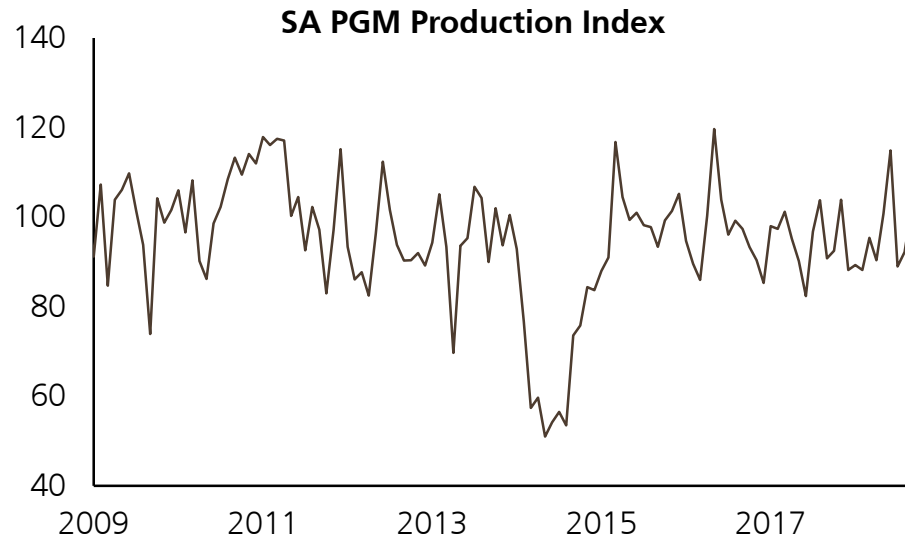
**Platinum mine supply by region 2017**



**Palladium mine supply by region 2017**

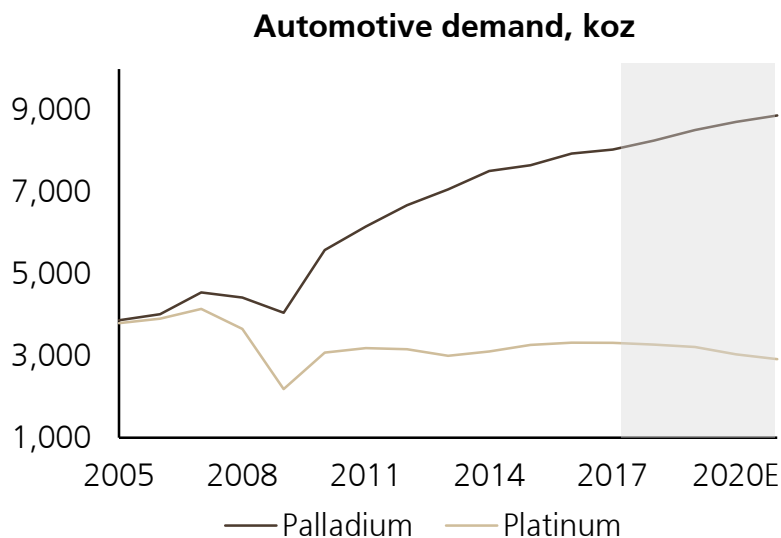
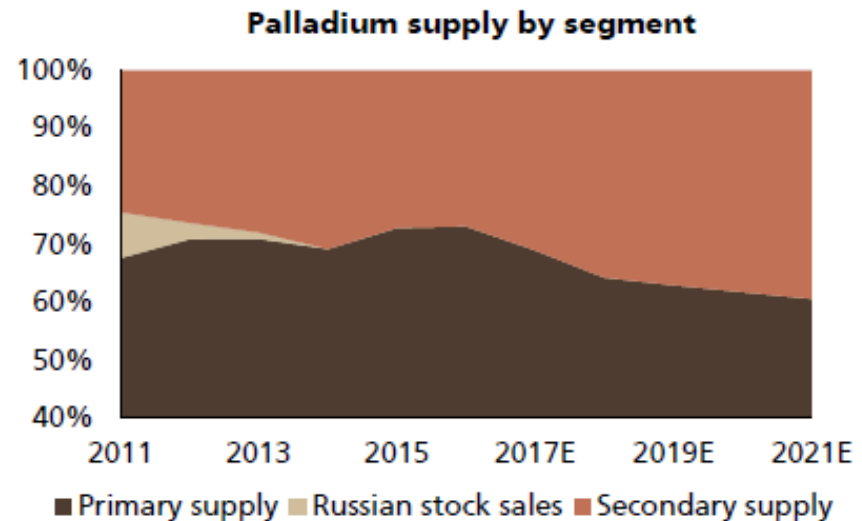
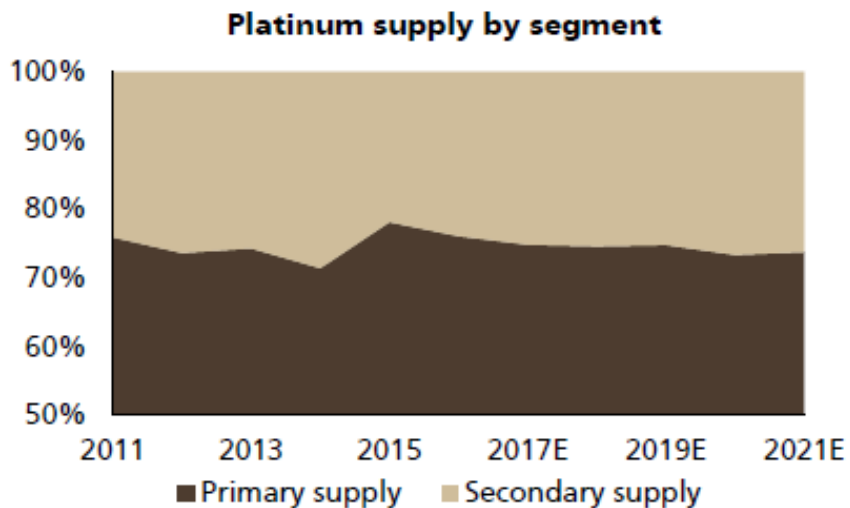


# High bar for supply **issues** to move the market...





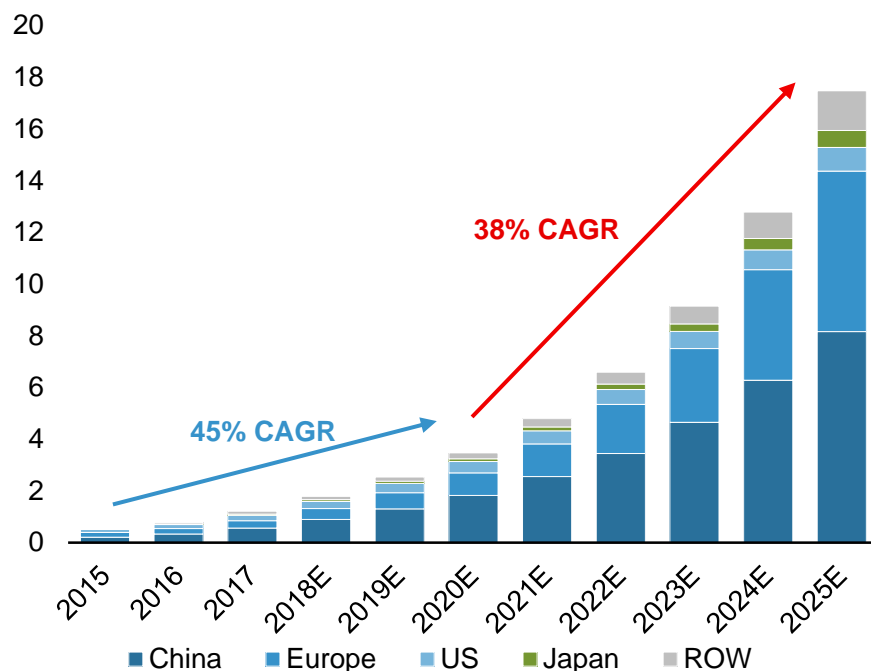
...but these should be key factors in the **long run**



Scrap supply is partly a function of historical PGM loadings

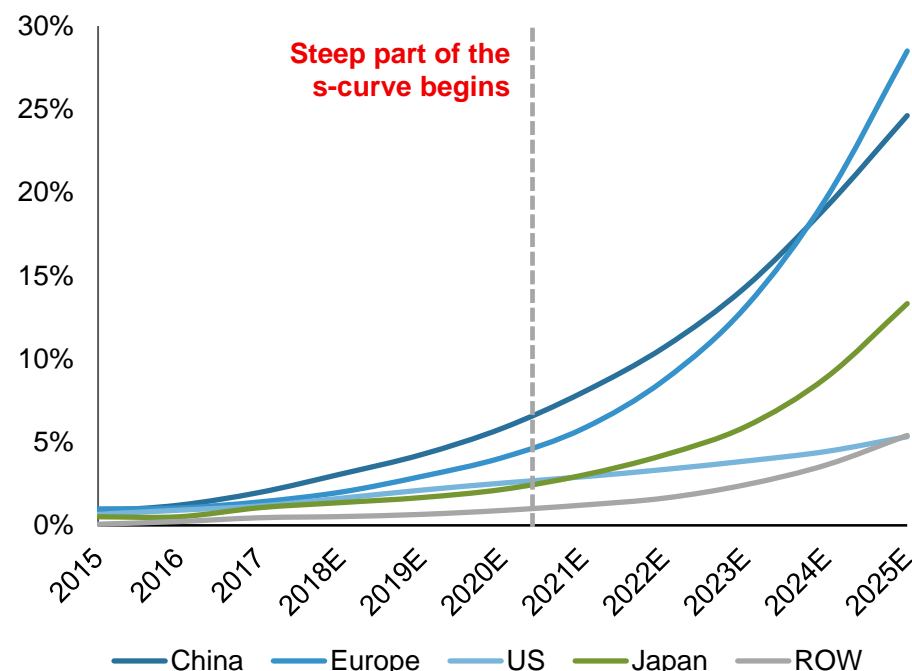
# BEVs could become a threat, especially for Pd

EV sales by region (m units)



EV sales penetration set to meaningfully accelerate after 2020...

EV share by region (% of total car sales)

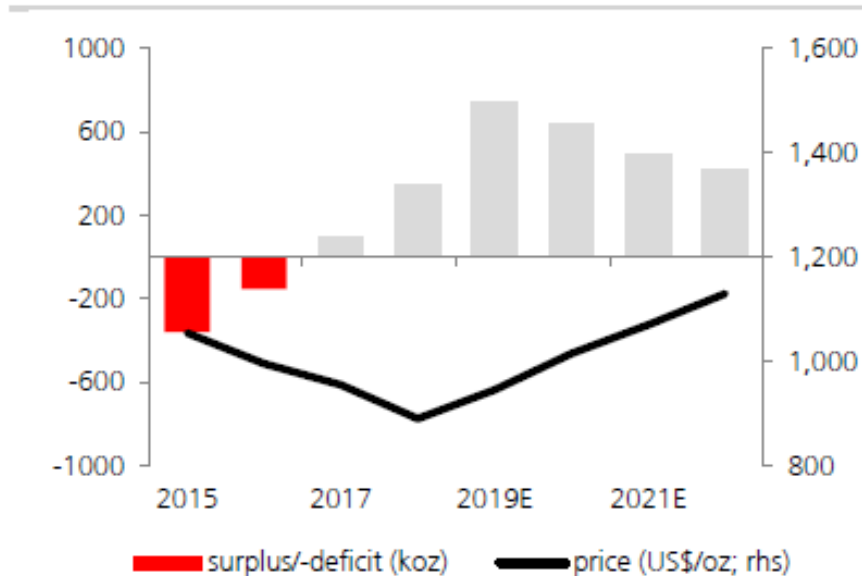


...particularly in Europe, where UBS Autos forecast 29% penetration by 2025

**UBS Autos: The EV story is changing – rapid shift from compliance cars to consumer demand pull**

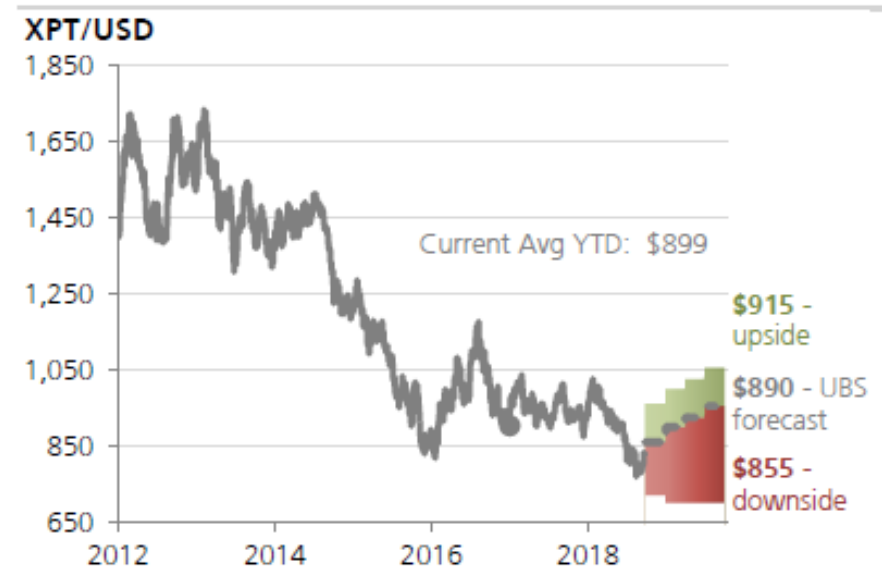
# Pt supply/demand balance & price forecasts

Price & supply/demand balance



Source: Johnson Matthey, UBS forecasts

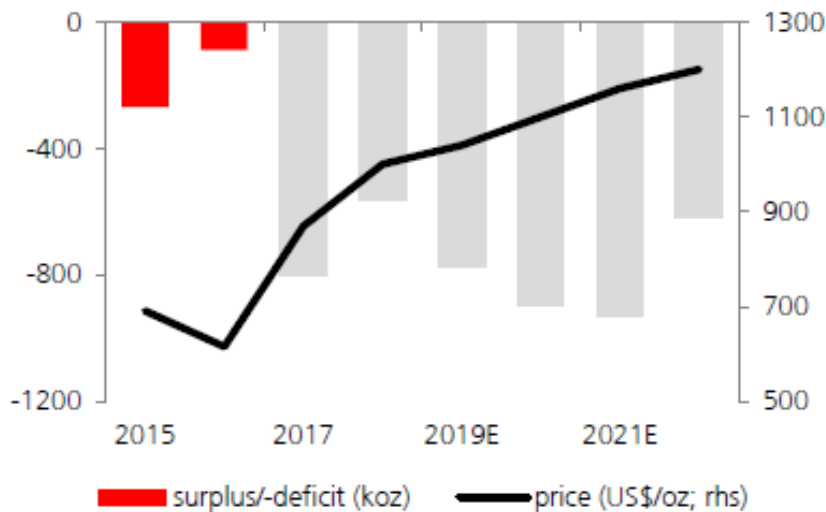
Upside/downside, 2018E (US\$/oz)



Source: Bloomberg, UBS forecasts

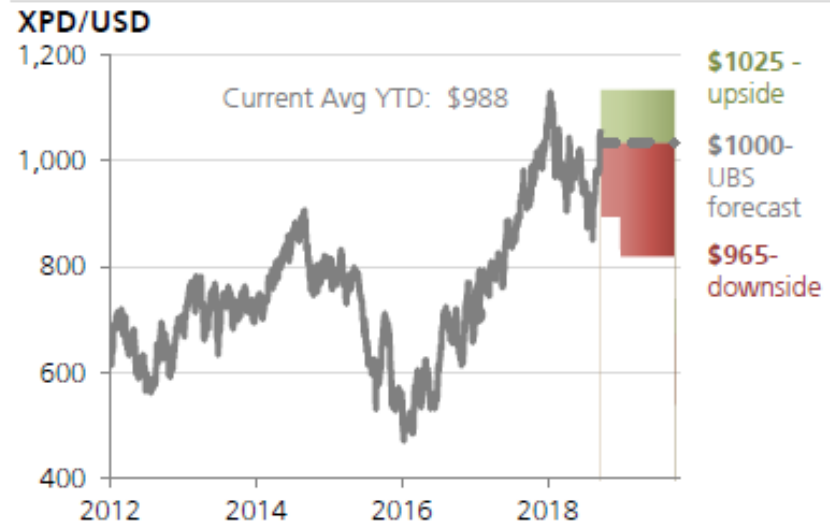
# Pd supply/demand balance & price forecasts

Price & supply/demand balance



Source: Johnson Matthey, UBS

Upside/downside, 2018E (US\$/oz)



Source: Bloomberg, UBS

# In a nutshell...

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UBS View:

- **Gold**
  - Keeping a **neutral** stance: market should ultimately be supported, yet capped
- **Silver**
  - Should continue to follow gold, but **struggle** to outperform sustainably
- **Platinum & Palladium**
  - Auto sector trends continue to drive **divergence** in PGMs
  - **Long-term**, factors to watch out for include: 1) supply side response, & 2) BEV penetration rates

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