Economic Watch

EAGLEs

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Economic Analysis

Cross-Country Emerging Markets Analysis

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Behind The Emerging Markets Sell Off: Some Stylized Facts

- **Key factors behind Emerging Markets (EM) assets rebalancing**
  Three key factors behind the sell-off: (i) uncertainty about the US Federal Reserve Exit Strategy; (ii) the slowdown and additional worsening of growth expectations in Ems; and (iii) "margin calls" prompting portfolio managers to sell EM assets in their global portfolios.

- **Outflows from Emerging Markets have been sizeable**
  According to our estimates, the size of the sell-off has been quite large so far. Since mid-May until the end of July nearly 92 billion USD have left emerging markets in the form of portfolio outflows (be it fixed income or equity). The adjustment reached its sharpest pace this June and continued in July but more mildly. The sell-off has been more intense for bonds than for equity. Our projections, based on a Dynamic Factor Model, point to a similarly moderate sell-off in August than in July.

- **Excessive capital inflows driven by QE3 have been corrected but risks remain to the downside**
  We estimate excess portfolio flows into EM due to QE3 to have reached $215 Bn USD at its peak in mid-May 2013. Today nearly 43% of such excess inflows have already been corrected due to the sell-off. However, most of it has happened in bonds so the downside risk is larger for equities.

- **A more sizable EM sell-off than in the EU periphery.**
  The re-balancing has been much more intense in EM than in the EU Periphery countries. This could be read as a general portfolio rebalancing away from EM and not so much the reaction to an increase in global risk aversion.

- **Margin Calls behind the faster adjustment in the most liquid EM**
  The sell-off has been mainly driven by retail investors with no ability to differentiate among EM and prone to heard behavior. On the contrary, institutional investors have sold EM assets mainly in the most important and liquid markets, such as Brazil, Mexico, Turkey and Russia. This is the reason why "Frontier Markets", although perceived as riskier, have outperformed more traditional EM during the sell-off

- **What´s Next?: We are still positive on Emerging Markets**
  First, major central banks engaged in QE must have learned from this sudden change in market mood so as to improve their communication on exit strategy (Early Exit). Second, EM's macro story of high growth has been dented somewhat but the growth differential with the West is still huge. The same is true for vulnerabilities: although higher for EM now (at least for some), they are still much lower than in the developed world. Finally, and very importantly, EM are still severely underrepresented in international portfolios, even more so after the sell-off.

Key factors behind the Great Rebalancing in EM Assets

Uncertainty about the US Federal Reserve Exit Strategy, the slowdown and additional worsening of growth expectations in EM; and “margin calls” prompting portfolio managers to sell EM assets in the global portfolios, have triggered a massive re-balancing across EM assets in international portfolios:

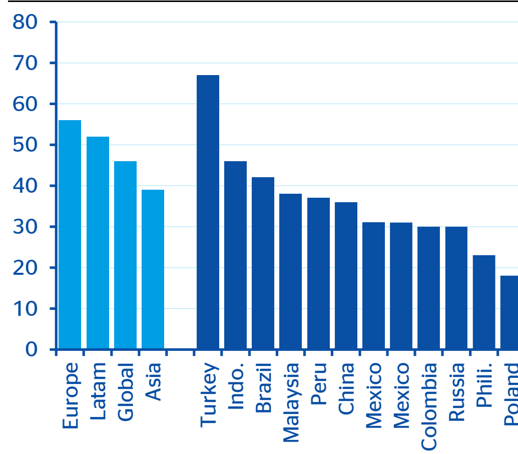
The FED “tapering-off” was especially relevant during the EM sell off. In this sense, US monetary policymakers clearly underestimated the impact of Chairman Ben Bernanke's statement in mid-May and the minutes in June 19 that the Fed "may vary the pace of (asset) purchases as economic conditions evolve" not only in domestic but also in foreign assets. The initial reaction was so virulent that additional communication efforts by the rest of the FED team clarifying the difference between halting and tapering were needed to restore the situation. The transmission to EM assets was mainly through the following channels:

- An unwinding of the Portfolio Balance Channel. The portfolio balance channel worked under the key premise that different classes of financial assets are not perfect substitutes in investors' portfolios. Thus, the FED’s purchases of securities affects not only prices and yields of the securities purchased by the FED but also the assets selected by investors as substitutes in the portfolios (some of the EM assets). In this way, when QE was introduced to lower the US bond long-term bond yields investors replaced them partially with EM assets of similar maturities to obtain higher risk-adjusted returns. This boosted EM asset prices and lower long-term interest rates in the EM economies. The opposite happened during the tapering off.
- Changes in the expected interest path. The sizeable QE and the forward guidance boosted global liquidity as the policy rate was expected to stay near zero in developed economies for a long period of time. This led to large interest rate differentials with EM, spurring carry trades into EM.
- Failures in the FED’s communication strategy have also been instrumental. In principle the FED Tapering would have been the result of the improvement in the US Economy which is clearly positive for the world. However, international investors read it more as a “worst case scenario” for ME where the cost of capital would sharply increase.

The slowdown and additional worsening of growth expectations in EM is another important factor. China´s slowdown and liquidity crunch in the interbank market together with unfulfilled growth expectations in major EM economies like Brazil and India contributed to rapid portfolio adjustments across EM assets, leading to massive cross border outflows. Growth expectations were also affected by e social unrest in Turkey and Brazil.

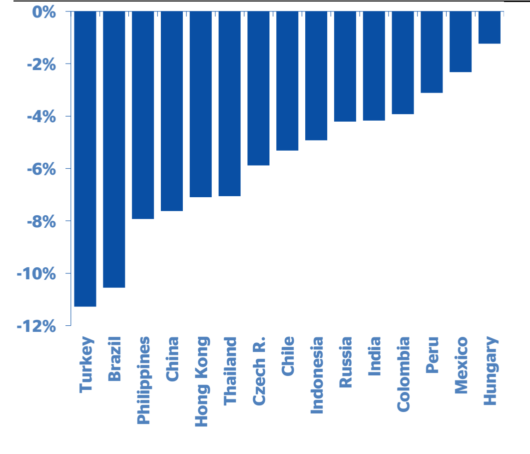
Finally, margin calls favored a particularly intense correction in the most liquid markets - such as Brazil, Mexico, Turkey and Russia.

Chart 1
EM Risk Premium assessment during June
(EMBI spread, increase in bps.)



Source: BBVA Research and Haver

Chart 2
Equity Markets performance during June
(% change during June)



Source: BBVA Research and Haver

The nature of the recent Global Portfolio Re-Balancing: Some conclusions

Given how recent the sell-off has occurred and the related lack of data, the extrapolation of high frequency a on portfolio flows is the best available means to draw some conclusions on the recent sell off. The most comprehensive high frequency data set is that of EPFR. We use estimates of elasticity of bond and equity flows provided from IMF and apply them to EPFR data to obtain the total change in portfolio flows following Balance of Payment Statistics compiled by the IMF[1]. On this basis, we draw a number of conclusions:

1. How big the correction and where?

- The EM portfolio flows correction after the FED´s announcement of tapering-off in mid May 2013 was sizable (near 92 US Bn. up to July 2013)
- Such sell-off was concentrated in bonds (65USbn) rather than equity (27USbn).
- The portfolio rebalancing has been far from symmetrical between Developed and EM. The adjustment has been especially intense in EM assets as there were additional reasons beyond global factors (FED tapering off) for the correction. Doubts on EM growth figures in big emerging countries (Brazil, China and India), social unrest in other big EM (Turkey & Brazil) and technical portfolio reasons (mainly margin calls) triggered the sharp adjustment in EM assets during May and June. The fact that the correction has been much larger among the most complete and liquid EM, -such as Turkey and Russia in EMEA or Brazil and Mexico in Latin America, is a proof of the relevance of margin calls as additional trigger of net portfolio outflows.

1: We use the long run elasticity of EPFR bonds (7.87) and Equity flows (1.85) to approximate BoP Net Portfolio Flows as computed in Miao and Pant (2012)."A coincident indicator of capital flows". IMF WP 12/55.

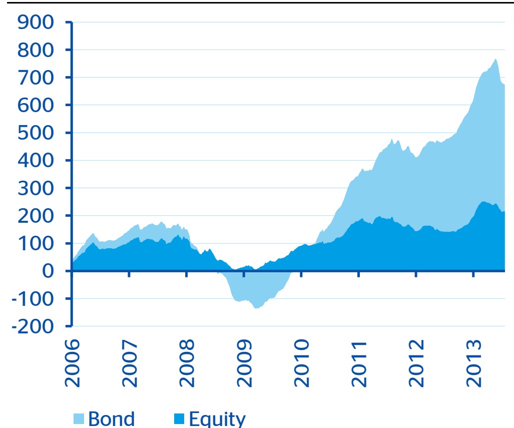
2. Where were we coming from?

- The sell-off has happened against the background of very strong inflows into EM. Such inflows were partly due to the quantitative easing extended by major central banks in developed economies, specially the FED.
- Applying a linear trend to the cumulative inflows path starting a year and a half before the start of the global crisis (since January 2006) we have worked out an educated guess of how much more capital had entered EM once QE3 was announced over and above the positive trend that had been experienced since January 2006 (a rough proxy of excess capital inflows). Right before the FED-ECB joint announcements in June 2012, funds allocated in EM assets had reached 478 USD. Thereafter an additional 290 Bn USD was added reaching 768 USD Bn in May when the peak was reached. (Chart 5).Comparing the trend with that actual increase, we consider the difference to be excess capital into EM pushed by QE3. Such difference is estimated to have reached 215 USD until May 2013 (Chart 6).

3. Where are we heading?

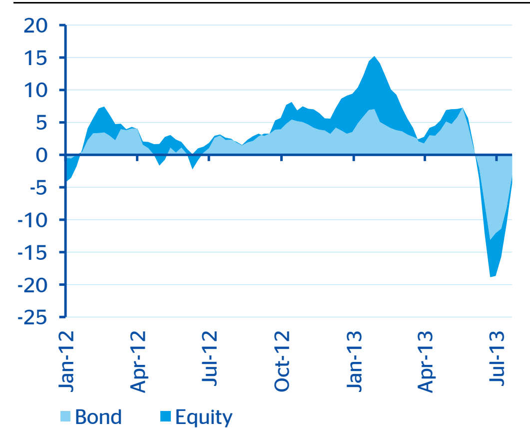
- The correction experienced during May, June and July has so far slashed 92 USD Bn to the capital inflows experienced by EM. This represents about 43% of excess inflows stemming from QE3 as previously estimated. The adjustment in July was visibly milder than that of June (see table 7).
- We have developed a Dynamic Factor Model (see appendix) that analyzes the dynamics of each country's capital flows as the joint dynamics of three latent factors: a global, a regional (for the whole emerging world) and an idiosyncratic factor. The first one is related to global push factors, such as risk aversion, while the second one has to do with EM developments not gauged in the global factor. The third factor, relates to domestic pull factors. Based on this, our model anticipates a continuation of outflows from EM during August at a pace similar to that of July (USD 17 Bn). This adjustment will bring the net correction to approximately US 110 Bn or half of the accumulated imbalance.

Chart 3
EM Cumulative Net Portfolio Inflows (US$ bn, cumulative since 2005)



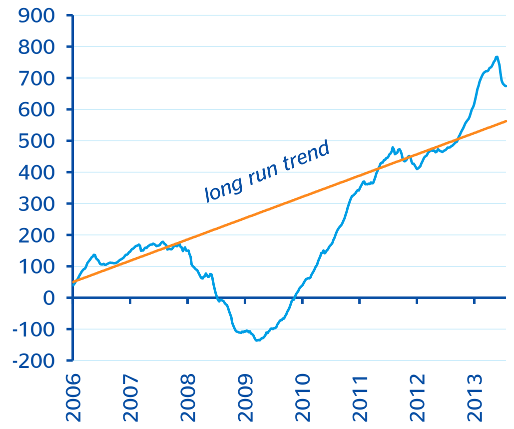
Source: BBVA Research, IMF and EPFR

Chart 4
EM Net Portfolio Inflows Monthly Changes (US$ bn, 4 week changes)



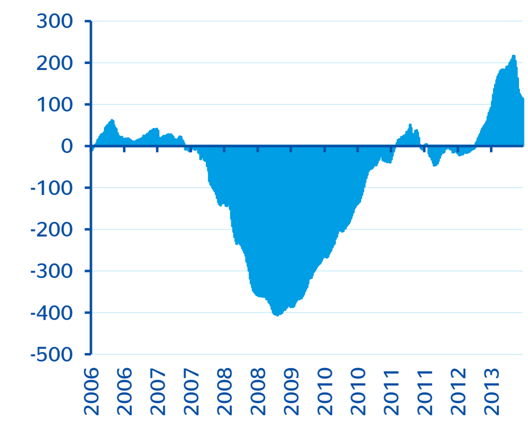
Source: BBVA Research, IMF and EPFR

Chart 5
EM Cumulative Net Portfolio Inflows (US$ bn, cumulative since 2005)



Source: BBVA Research, IMF and EPFR

Chart 6
EM Portfolio Flows Excess (US$ bn, deviation from long run trend: 2006-2013)



Source: BBVA Research, IMF and EPFR

4. Which countries have been most affected by the sell-off?

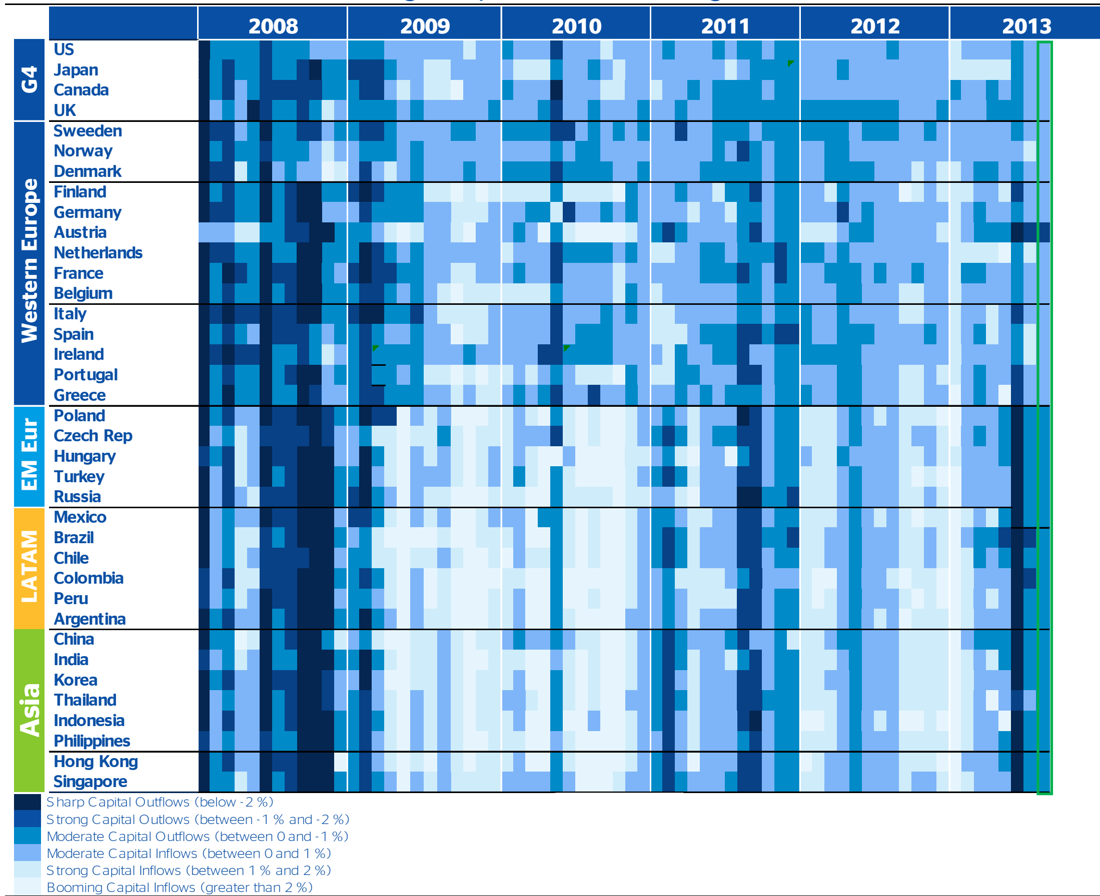
The color map below (chart 7) gives us some insights about the geographical movements in capital flows. It confirms that the adjustment has been larger in EM (shown by darker colors). Some o f the EU Periphery countries have been affected but with much lower intensity, especially in Spain and Italy.

– Among EM assets, the largest and most liquid countries in EMEA such as Poland, Russia and Turkey have been affected the most.

– In Latam, we can find a similar pattern with the biggest and most liquid countries (Mexico, Brazil) leading the adjustment.

– In Asia, the adjustment has been more uniform with Thailand among the least affected countries.

Chart 7
BBVA Research Country Portfolio Map: Emerging Markets
(% EM Flows over EM total assets, august represents forecasted figures)



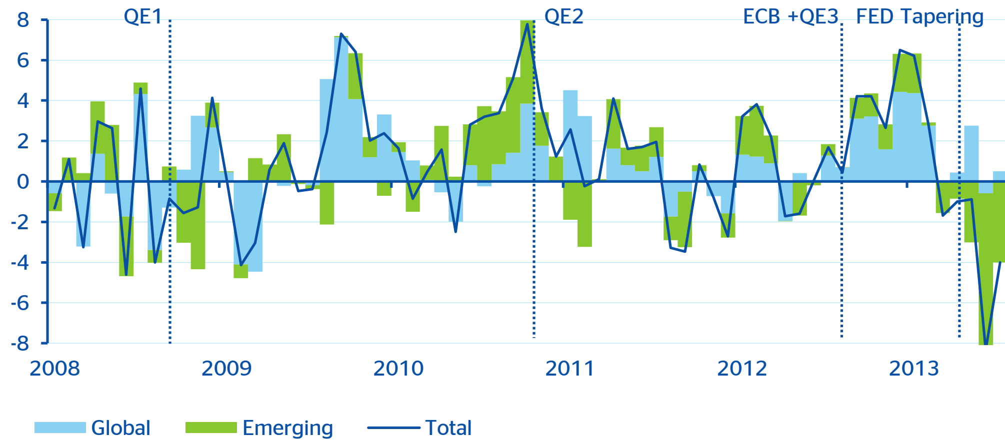
(No 4)Source: BBVA Research

5. Is the current adjustment similar to previous episodes during the global crisis?

According to our Dynamic Factor Model the current episode has been somehow different (Charts 8 & 9):

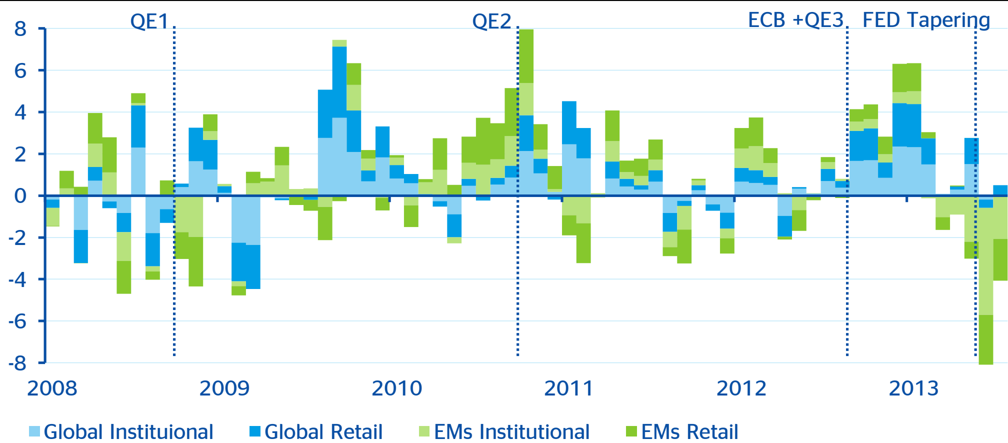
- While the last surge in Capital flows triggered by the ECB and FED actions last summer was driven by a global common factor in both retail and institutional investors. The recent sell off was particularly geared by EM –related factors (75%) while some minor (but not negligible) role was given to idiosyncratic factors in EM.
- The only similar episode was during the second half of 2010 when the EM component drove a six month period of strong capital inflows.

Chart 8
Global Portfolio Flows Factor Decomposition
(Global and Emerging Factors, Flows over total assets in %)



Source: BBVA Research and EPFR

Chart 9
Global Portfolio Flows Factor Decomposition
(Global and Emerging Factors, Flows over total assets in %)



Source: BBVA Research and EPFR

6. Who has been selling?

The sell-off has been deeper and more generalized for retail investors. Retail investor adjustment in EM assets was sharper and with little differentiation among EMs. In addition, retail investors partially compensated the outflows from EM with inflows to developed countries The adjustment of EM portfolio flows by institutional investors was milder and there was no substitution with asset purchases in developed markets.

What´s Next for EM? Learning by Doing in the North and still positive in the South

The answer to this key question will depend on the management of the Early Exit by the Federal Reserve officials, the economic outlook and degree of vulnerability of EM as well as technical portfolio reasons.

First, we consider that sooner or later the US Federal Reserve should start to normalize interest rates. Independently of the timing, we consider this a positive thing for the US and, thus, for the rest of the world's economic prospects. Besides, we believe that the Federal Reserve and the rest of West Central Bankers will continue to improve their communication strategy in a "learning by doing" process. This will be also positive for EM as they will benefit from a stronger US economy while they also limit the risk of bubbles coming from an extended period of quantitative easing in major central banks. .

Second, although EM investors will have to adjust their expectations to lower EM growth especially in the biggest economies, their growth differential with the developed world is still clearly positive and so is true for their fundamentals. In general terms, EM vulnerability is at historical minimums with relatively healthy public, corporate and household balance sheets and low public and private debt.

Third, EM assets remain underrepresented in international portfolios, even more so after this sell-off. In fact, EM debt represents only 15% of this asset class which compares really poorly with near 50% of the global GDP being generated in EM.P.

- All in all, we still maintain a positive view on EM assets, especially after the current portfolio rebalancing. In fact, such sell-off has helped correct previous misalignments in some EM assets (bond, equities and exchange rates) and has helped bring EM assets more in line with fundamentals.
- However important risk remains. First, there is still uncertainty on the FED's exist strategy. Second, the fundamentals in some EM countries could worsen further. In fact, some countries still have large current account deficits to finance, which makes them particularly vulnerable to sharp adjustments in capital flows (Ukraine, South Africa, Turkey and India). Others, especially in Emerging Europe, still present important currency mismatches due to FX liabilities.

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Annex: A Dynamic Factor Model for Portfolio Capital Flows

We use a version of a dynamic linear model. Our set-up comprises a measurement equation block (1) and a state equation block (2).

1. $Y(t) = c(t)X(t) + V(t) \qquad V(t) \sim i.i.d.$
2. $X(t) = A(t) * X(t-1) + Z(t) + F(t)W(t) \qquad W(t) \sim i.i.d.$

Together they build a so called State Space Model. In this, the measurement equation block relates an observable variable (Y) to unobservable "states" or latent factors. The state equation block (2) allows for time dynamics of the mentioned latent factors so that the estimated states may evolve through time and may allow predictions of the measurement equation recursively. The procedure uses typically a Kalman Filter approach and Maximum Likelihood estimation.

In our model, in the measurement block (1) *Y* is a matrix of *n*- capital flows. These flows are related to a number $m<n$ of unobservable estates or latent factors (*X*). The relation between Y and X relies on the specification of (*C)* which renders the final shape of the latent factors.

In our analysis we estimate country flows (relative to assets) as the outcome of three factors: a global factor, an EMs -factor an idiosyncratic factor. The global factor bodes well with global push forces such as excess liquidity, risk aversion, or Fed fund expectations. The EM factor has to do with regional specific forces for emerging Markets not included in the global variables. The idiosyncratic factor is related to local pull factors such as rate differentials, for example.

Following the model dynamics we forecast these factors recursively so as to obtain forecasted values of our capital flows.

At this stage of the model, we only exploit the MA structure of the state equation block. While this is advisable due to computational reasons, it does not allow gathering richer time dynamics between factors or fetching additional information beyond the one included in the country flows themselves (there is no Z in our model). For this reason the forecast ability of the model might be limited to the very short run. However since we use data at fairly high frequency (weekly flows) we remain confident in our forecast one month ahead.

This approach is consistent with previous work analyzing underlying factors behind country flows, such as Fratzscher (2001), Miao and Pant (2012) and Lundblad and Ramadoraiy (2011). More recently, the IMF's Pilot External Report has introduced a new framework in which capital flows rely on structural and temporary factors very similar to those in our model.

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